

Creating Through Mind and Emotions

phi
Proportion Harmony Identities



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Maria do Rosário Monteiro

Co-Editor:
Maria João Pereira Neto



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PEER REVIEW PROCESS

Through an international CFP, scholars have been invited to submit full chapters on theoretical and methodological aspects related to the theme “CREATING THROUGH MIND AND EMOTIONS” in the scientific fields of Architecture, Arts, and Humanities, Design, and Social Sciences, hard sciences, and technology.

All full chapter proposals were subjected to double-blind peer review, distributed to senior researchers for evaluation according to each scientific area. Members of the scientific committee also peer-reviewed papers within their field of expertise. This book is the outcome of the evaluation, revision, lengthy selection, and production process that lasted ten months.

BOOK PRODUCTION REPORT

Ninety-eight full papers were submitted. After the selection, the Reader will find in this book sixty-six chapters written by authors (senior researchers and post-graduation students) from Brazil, China, Finland, Italy, Lebanon, Poland, Portugal, Romania, Spain, Sweden, and the United States of America.

Sponsors



This book had the support of CHAM (NOVA FCSH/UAc) through the strategic project sponsored by FCT (UIDB/04666/2020 and UIDP/04666/2020).



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Editorial foreword

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Maria do Rosário Monteiro

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Dear Readers,

We are pleased to present the fourth volume of the PHI series (Proportion, Harmony, and Identities), entitled *Creating Through Mind and Emotions*. It is the outcome of a Call for Full papers launched internationally in October 2021.

PHI book series and congresses are annual international events for the presentation, interaction, and dissemination of multidisciplinary researches related to the broad topic of “Harmony, Proportion, and Identity” relevant to Architecture, Urban Planning, Design, Arts, the Humanities, Social Sciences but also opened to the hard sciences and technology.

The PHI Project aims to foster the awareness and discussion on the importance of multidisciplinary studies and their benefits for the community at large, crossing frontiers set by Western academic tradition that, according to the project organizers, frequently prevent the communication of knowledge and the creation of bridges that may foster humanity’s evolution.

The 7th INTERNATIONAL MULTIDISCIPLINARY CONGRESS PHI 2021 was planned to be held at the Faculty of Architecture - University of Porto, Porto, Portugal, from October 4th to 6th, 2021. However, the COVID 19 pandemic we live in forced us to make the hardest decision for the second year in a role - to cancel the Congress. However, as Book’s Editors, we decided to publish the book PHI *Creating Through Mind and Emotions*, composed of all the chapters accepted by the peer reviewers, to avoid the interruption on the indexing process and our colleagues’ frustration who worked hard in their researches and hoped to present them live.

We received ninety-eight-chapter proposals from thirteen countries. After an intense scrutiny process through a rigorous double-blind peer review method and a linguistic review, sixty-six were selected for publication as chapters of this volume. Thus, this book represents the combined effort of scholars from Brazil, China, Finland, Italy, Romania, Poland, Portugal, Spain, Sweden, and the United States of America.

We decided to organize the publication into five major sections, each divided into chapters. The first, bearing the same title as the book itself, is formed by chapters written by invited scholars that serve, in our opinion, as proper introductions to the diversity and complexity of themes involving *Creating Through Mind and Emotions* in a multidisciplinary perspective. Thus, the first part includes a brief introduction - *Drawing with Mind and Emotions* - and the texts on topics such as general comments on Space Architecture - a view of these dynamics from the perspective of a career as an architect in the NASA Human Spaceflight program and its unique genesis of Space Architecture as a discipline - a text on fantasy literature - *Waking up the Trees: Reason, Emotion and Recovery in The Lord of the Rings*, and a thorough research on the justification of slavery and modern natural law.

The second section approaches *Creating Through Mind and Emotions* applied to Architecture, Urban Planning, and Design. The section focus on theoretical and critical reflection on architecture; continuing with history; reflections on pedagogy and the teaching of architecture; the various typologies of architecture; transdisciplinary crossings with architecture; the

application of new technologies in architecture and heritage; relationships and their proximity to landscape/urbanism and its contemporary problems and challenges based on the concept of the various typologies of architecture even in pandemic times.

The third section assembles texts dealing with *Creating Through Mind and Emotions in the Arts*, presenting different perspectives on their importance and influence on art creation.

The fourth section assembles chapters under the vast Humanities umbrella. Here one finds chapters on philosophy, theology, history, literature, and culture.

The fifth section presents chapters on different aspects of the social sciences.

Apart from our intervention in the organization of the volume, all individual chapters are the sole responsibility of their respective authors.

Creating through Mind and Emotions would not have been possible without the support of the Faculdade de Ciências Sociais e Humanas (NOVA FCSH), Universidade NOVA de Lisboa, the Lisbon School of Architecture - University of Lisbon, and the Research Unit CHAM as well as Fundação para a Ciência e Tecnologia (FCT).

We sincerely hope the academic community and the public, in general, find this publication enriching and thought-provoking.

Portugal, October 2021

Part I
Creating through mind and emotions



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Introduction: Drawing with mind and emotions

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ABSTRACT: Emotional intelligence, a set of skills hypothesized to contribute to the accurate appraisal and expression of emotion in oneself and in others.

(Salovey & Mayer, 1990)

The sciences alone cannot illuminate the entirety of human experience without the light that comes from the arts and humanities.

(Damásio, 2017 p. 17)

Keywords: Mind, Emotions, Drawing, Arts, Visual communication

1 EMOTIONAL INTELLIGENCE

What sparks the creative mind? Is it a need to solve a problem? Is it an emotion that needs to be expressed and communicated? Is it both? Can emotion and reason exist without one other?

These were the starting points for this congress. These were also the starting points for this reflection.

In his work *On the Origin of Species*, Charles Darwin (1809-1882) mentions the importance of emotional expression for survival and adaptation. Having been one of the first in a long list of scientists to identify the need for a balance between rational intelligence and emotion for the progress of our development, as human beings, and for the quality of our relations with other beings, contributing to get the best out of our experiences. In this sense, the concept of emotional intelligence emerges.

According to our research, the term “emotional intelligence” first appeared in texts by the American psychologist Hans Kierkegaard Leuner in 1966.¹ However, it was only deepened in 1989, first by the child psychiatrist Stanley Greenspan (1941-2010)² and, later, in 1990, by psychologists John Mayer and Peter Salovey. (1997). However, it was in 1995, with Goleman’s *Emotional Intelligence*, that the term became known to the general public.

A combination of personality traits influences emotional Intelligence. We can say that Emotional Intelligence is a concept that psychology describes as an individual’s ability to recognize and evaluate her/his own feelings and those of others and the ability to deal with them. From the Japanese philosophical point of view of *ikigai*³ is the competence responsible for much of the success and leadership capacity.

Control over emotions and the ability to master impulses are essential to achieving any creative and/or professional activity in general. In this sense, the neurologist António Damásio wrote in his book, *Descartes’ error: emotion, reason, and the human brain*, that emotions point us in a direction, take us to the appropriate place in the decision-making space where we can make the best use of the instruments of logic. (Damásio, 2013, p. 17)

In this perspective, we can ask the following questions, is it possible to learn to be emotionally intelligent? And can emotional interference influence the creative process?

According to American psychologist Daniel Goleman (1995), concerning the first question, the answer is yes, although it is not simple and is not achieved overnight. Goleman says that there are five essential elements of emotional intelligence to be worked on: Self-awareness, Self-regulation, Self-motivation, Empathy, and social skills.

Self-awareness is related to having a deep understanding of our emotions and the impulses that cause

1. Psychologist Hans Kierkegaard Leuner published in 1966 an article entitled Emotional intelligence and Emancipation edited in the journal *Praxis der Kinderpsychologie und Kinderpsychiatrie* (Matthews et al., 2002).

2. Stanley Greenspan, presented an IE model in 1989.

3. *Ikigai* (in Japanese: 生き甲斐) is a Japanese expression meaning “reason for living”, “pleasure object for living” or “driving force for living”.

them to react positively. In Self-regulation, knowing how to control emotions that generate negativity, anxiety, sadness, anger, etc. It is not a question of repressing them because they have their utility, but of finding the balance so that we are not prisoners of them. Concerning self-motivation, emotionally intelligent people are characterized by using the will and strength necessary to achieve their goals. Optimism is an essential requirement to achieve pre-defined goals. Concerning Empathy, it is essential to have the ability to put oneself in the other person's shoes, understanding his/her feelings and motivations without assuming them as one's own. And finally, Social Skills entail relating to people in the surrounding environment to seek our own benefit and that of others.

When considering that the mind controls and shapes the brain when generating thoughts, it is essential to give singular importance to the thinking process. Thus, the feelings of the emotions are perceptions extracted from the body/mind relationship when emotions are felt. With regard to the body, the feelings do not concern the actions themselves but the images of those same actions. Emotions are understood as actions accompanied by ideas and ways of thinking. Emotional feelings are related to what happens in our body in the course of emotion in parallel with the state of mind during a certain time (Damásio, 2010).

In this sense, the mind has the power to model and recreate the way the brain acts, for better or worse, depending on the type of emotion that arises in the thought.

In recent decades, cognitive science has proven that the brain's development is unlimited, and its development depends on how the mind relates to its thoughts. The brain needs to be stimulated, taught, nourished, and provoked by thoughts. The incredible novelty will be discovering that turning our brain into a super-brain will depend exclusively on how we use our minds.

The human being has always questioned himself about his ability and his need to create. Throughout the evolution of human civilization, expressions of creativity have been a constant in human activity. However, it will not be possible to imagine the birth of the arts without thinking of a human being just struggling with problems raised by feelings. (Damásio, 2017, p. 246)

A recently published article in *Molecular Psychiatry* (Zwir. et al., 2021) identified more than 200 human genes that underlie their capacities for self-awareness, creativity, prosocial behavior, and healthy longevity. These are not found in chimpanzees or Neanderthals, and that may account for the rapid emergence of human creativity and other components of behavioral modernity, including physical, emotional, cognitive, social, and spiritual features. This study shows how these capacities are important in our lives; they are characteristics that distinguish us, homo sapiens, from our ancestors and other species

and permit our evolution. The world we live in is shaped by creativity. In our day-to-day, we are faced with unusual problems, apparently insoluble. In order to obtain an answer, it is to creative thinking that we need to resort. (Puccio, 2006).

Creative acts are based on knowledge. Knowledge must, however, be selected in order to allow flexibility and openness to restructuring. Incubation consists of a gestation period resulting from an unconscious or partially conscious process, which requires flexibility and organization. In the enlightenment phase, the “click” or “flash” appears. It is seen as the end of the incubation phase and consists of inspiration, revelation, and understanding, transforming what was unconscious into consciousness. Finally, in the verification, which involves refining or correcting the result/product - an assessment of the idea is made as to its suitability and form of communication. (Wallas, 1926; referenced by Rato, 2009)

Despite the multiple attempts to define the act of creating, there has not yet been agreement on a sufficiently comprehensive and enlightening definition. Only one consensus seems to exist that creativity must be understood as a multidimensional process, and the context in which it occurs must always be considered. (Baia and Nogueira, 2005).

Naturally, other variables affect human performance in daily activity and how people face their challenges. These variables can be associated with external or internal factors. As an example for external factors, we can refer to the characteristics of the environment, such as purely technical conditions (like funds, means, materials), and for internal factors, awareness, motivation, or the emotional state.

Traditionally, artistic creation is more associated with emotion than reason. The image of the artist working just for his delight and giving expression to his emotions in his ivory tower prevails. However, the reality is often different. In the Renaissance, for example, artists such as Leonardo da Vinci (1452-1519), Michelangelo Buonarroti (1475-1564), or Rafael Sanzio (1483-1520) worked for a patron or by commission. Thus, in their artistic creation, reason and emotion had to be balanced, as artistic freedom was conditioned to a program imposed on them. This situation continued and continues to exist.

Reason and emotion are present not only in the creation but also in the enjoyment of artistic works



Figure 1. Abstract Point Effects (Chinese Ink painting on Rice Paper) 2021, painted by Mário S. Ming Kong, Dim: 15 cm × 33 cm (5.9 in x 12.99 in).

When the artist expresses himself, he exposes his work to observation. This work will provoke emotions that may or may not be the object of rational analysis, which in turn may differ from the artist's vision or intention.

Let us exemplify the above with the help of what is considered the first element of plastic expression – the point.

Considered the simplest visual element, the point becomes somewhat abstract when studied in isolation due to its characteristics that can be defined as both immaterial and versatile. It has the particularity of being an element that can represent the beginning or the end, enhancing the imagination and the association of ideas, abstract or not, and being an expression of sensations and emotions. In geometry, the point is considered to have no dimension, a mere mental construction, the place where two lines intersect. However, considering it as a visual element, the point is material (it has intensity, dimension, ...) and can be applied, analyzed, and interpreted under various aspects such as magnitude, visual appearance, possible relation to other points, among many other aspects.

Before proceeding, it is incumbent upon us to mention that it is not our objective here to deepen the theoretical and practical concepts of a point. For this matter, we refer to the plastic artist Wassily Kandinsky (1926), who approached it brilliantly in his work, both literary and plastic.

Returning to the representation of the point. Product of rational human action, in an act of expression of an artist's sensations, feelings and emotions, the point can, in turn, generate various interpretations when observed by others. For some, the point will be a fixed and immobile element. For others, it can be a latent element that, suggesting movement or not, can be associated with new sensations, new feelings and provoke new emotions. In fact, the expression given in the registration of the point can contain, transmit and provoke various tensions, impressions, and impulses. However, the interpretation of this drawing depends on internal factors such as the observer's state of mind, their experiences, their influences and experiences, their motivation; as well as external effects: the environment in which the spot is observed, the noise, the temperature, the presence or absence of other people. Thus, we can say that the simple point can reflect and transmit the most varied expressions of emotion: creativity, fear, anger, joy, strength, fragility, harmony, confusion, simplicity... In other words, even the most elementary element of plastic expression is born from the artist's will, reason, and emotion and may, to those who observe it, transmit sensations and provoke emotions.

2 CONCLUSION

In this understanding, we conclude that a positive correlation between emotional intelligence and

problem solving, emotional intelligence and creativity, and a significant relationship between creativity and problem-solving exists in all human creation, be it scientific, artistic, or humanistic.

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Innovation and tradition in human spaceflight architecture

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ABSTRACT: In most societies today, people balance their lives between tradition and modernity. Modernity often relates closely to innovation, or at least to a positive view of it. Similarly, tradition and innovation engage in a dialectical process in which the new transforms the old. This essay presents a view of these dynamics from the perspective of a career as an architect in the (NASA) Human Spaceflight program and its unique genesis of Space Architecture as a discipline.

Keywords: Space Architecture, Airlock, Colqhoun, Suitport, ISS, Space Station, Modernity, Vitruvius, Palladio, Spacecraft, Space habitat, Misuses, Maimonides, Rambam

NOMENCLATURE

AIAA: American Institute of Aeronautics and Astronautics

AX-5: (NASA) Ames experimental space suit 5

BDA: Big dumb airlock

EMU: Extravehicular Mobility Unit, the Space Shuttle era spacesuit, still used by NASA on the ISS

ESA: European Space Station

EVA: Extravehicular Activity, to egress to the vacuum of space in a spacesuit

FoM: Figure of Merit, from System Engineering

HSF: Human Spaceflight

ISS: International Space Station

LEV: Lunar Electric Vehicle

MBA: Space Station Multiple Berthing Adapter (cylindrical tunnel)

MDA: Skylab Multiple Docking Adapter

NASA: National Aeronautics and Space Administration

NewSpace: Commercial, entrepreneurial, and private space launch and exploration companies and activities

PLoC: Probability of Loss of Crew

PLoM: Probability of Loss of Mission

PLSS: Portable Life Support System for a space suit
Rambam; Rabbi Moses ben Maimonides

SSF: Space Station Freedom

TRL: Technology Readiness Level

a keynote address on the theme of Innovation and tradition, I was intrigued, but I warned her that speaking on this topic might risk exposing the audience to how strange my mind is. She said that would be OK, but I wonder if she knew to what she was agreeing.

I hope this essay will add up to more than a simplistic mashup of art, design, engineering, and philosophy. It is difficult to approach this topic as a detached academic polemic. I can make sense of this topic only from personal experiences and insights seasoned by unsystematic reading and analysis in multiple disciplines. For this reason—the personal angle—it is not practicable to provide reference citations for some of my key assertions. However, I try at least to frame this narrative within the “traditional” benchmarks for rational discourse and philosophy¹ Here I present examples mainly from my earlier work because it is better for discerning the salient aspects of innovation, tradition, and modernity.

To start, the perspective that I bring to the discourse on tradition versus innovation derives from my career spent in Aerospace and Architecture, specifically in the US human spaceflight (HSF) program. This HSF endeavor identifies most closely with NASA, where I worked for over a quarter-century. However, in the nascent era of NewSpace, consisting of commercial, entrepreneurial, and

1 INTRODUCTION

When Prof. Maria Joao Durão (University of Lisbon Faculty of Architecture) invited me to give

1. This paper embodies a largely philosophical essay, which is somewhat rare for the architectural design literature. The advantage of a philosophical essay is that one can ask questions, but need not answer them.

private space ventures, it is becoming the province of many startup companies.

I come to innovation from the NASA *tradition* that the team takes priority over the individual contributor. I carried this approach—this attitude—into my post-NASA career for Northrop Grumman, my own (former) business Astrotecture®, and in my current participation in Space Cooperative. *It's not about me*. My contributions consist primarily of “getting out in front” of major programs to focus on identifying which innovations the human space program will need. Next comes formulating the concepts and proof of those concepts to demonstrate their feasibility and advantages.

1.1 Buckminster Fuller and his dymaxion principle

Buckminster Fuller was my earliest mentor. I attended many of his lectures from 1970 to 1982 and listened to the ones I could not attend. I have read nearly all his books. If I could encapsulate all that I learned from Bucky in one thought, it would be a recitation of his Dymaxion Principle. The Dymaxion Principle derives from methodological roots, which Fuller recounts in a conversation with Dr. Jonas Salk in the mid-1950s, soon after the global, life-changing success of his polio vaccine.

Dr. Salk said, “I’ve always felt that those dymaxion gadgets—cars, houses, maps, etc.—were only incidental to what you really are interested in. Could you tell me what your work is?”

I said, “Yes, I’ve been thinking about that definition for a long time. I’ve been engaged in what I call comprehensive anticipatory design science.”

And Dr. Salk said, “That’s very interesting, because that’s a description of my work too” (Original emphasis. Fuller, 1965, p. 63).

In terms of practical application, Michael Hays, Prof. of Architecture at Harvard, said,

We didn’t talk about sustainability in Fuller’s day. [...] But he was trying to develop ways of living that would benefit the largest number of people with the fewest possible resources. (McKeogh, 2008).

This overarching objective of Operating Spaceship Earth (Fuller, 1969), to make a fair and sufficient allocation of resources for all people was a constant theme in Fuller’s work. So, Fuller’s approach to the *Dymaxion Principle* stands on these three dynamics:

Comprehensiveness—seeing the big picture, the integrated system within all its entails,

Anticipation—foreseeing what the building, the house, the invention, the operation, the system will need in its full development, and

Design as Science—the idea that not only should there be a rational and empirical basis for design decisions, but that it should derive from a testable, empirical, and “provable” basis.

This last point is especially relevant to Space Architecture today. The act and the art of designing are fun. Yet, unless there is an empirical, evidence-based foundation for a design in Space Architecture, it is no better than any ego-driven artistic design or any unself-conscious engineering scheme that fails to consider its human impact and consequences.

1.2 Design science?

Fuller’s notion of Design Science stands on the argument that a design solution should be *testable* and *provable*. However, Fuller does not go as far as his 20th-century contemporary philosophers of science did.

These contemporaries (e.g., Feyerabend, 2010, pp. 16, 146; Kuhn, 1975; Popper, 2002, pp. 18-20) addressed this argument and principle in the scientific method. To sustain a scientific theory or hypothesis, it must be *falsifiable*. It would not suffice, not solely that the hypothesis, theory, or—in this case—design should be *provable*. Provability depends largely on observation and analysis. *Proof* and *falsification* do not necessarily cancel each other out, but they must remain separate and distinct. For falsification, the test is always: Can you reject the *old paradigm* (Kuhn, 1975, p. 95) or reject the *alternate hypothesis*? Does the *null hypothesis/old paradigm* prevail?

It may seem strange to couch a design problem and its solution in this language of science, but how can it constitute a true Design Science while eschewing the true language of science? In my view, falsifiability pertains first to the design problem definition, to verifying the elements that comprise the problem. Are the requirements the correct ones? Second, falsifiability applies to validation of the design solution. Does the solution address all the elements of the design problem definition? Does it meet the requirements? Does it “solve” the design problem?

1.3 Robert E. Machol and system engineering

Another mentor I met when I started working at the NASA Space Station Concept Development Group in Washington, DC (1983-84) is Robert Machol, the founder of *System Engineering*. Subsequently, Machol engaged in several consulting contracts at NASA Ames Research Center, where we held frequent discussions. Machol was a Fuller contemporary who surpassed Fuller in the Comprehensiveness dimension of the Dymaxion Principle. Robert Machol and Harry Goode’s seminal book *System Engineering* (1956) presents innovative, systematic, and quantitative approaches to analyze and solve

complex design problems. This first version of what became his *System Engineering Handbook* presents a revelatory and revolutionary way to approach and analyze technical problems. Like Fuller, Machol emphasizes looking at the total context, the big picture, the comprehensive design problem space. From Machol, I learned to ask always: What are they not seeing? What are they not considering? Not taking into account? What happens if you calculate that? ...

1.4 In the space community

What I found early in my NASA career—and throughout my work in HSF—was that when dealing with architects, engineers, or scientists, there were always many things that they did not consider in the problem definition and design of an HSF project. Those blind spots would afford the basis of a dissertation, but essentially here are the patterns of omission that I found:

- Architects look at the big picture, but their grand concept as a design solution tends toward the egotistical and overlooks key practical issues in design of an HSF habitat.
- Engineers wish to believe that everything is reducible to a quantitative problem for which there must somehow exist a quantitative optimization, if not a deterministic solution.
- Scientists want the best possible accommodation for their experiment, instrument, or payload but tend to be reluctant to see or to embrace the larger design problem and solution.

Of course, there are important exceptions to these observations which would afford another dissertation, so let us leave it there.

2 THE GUIDE FOR THE PERPLEXED

This section addresses the conditions and circumstances that promote and stimulate the deep insights that lead to genuine creativity in design. The framework for this discussion is knowledge of *absolute* or *necessary* truth versus the knowledge of good and evil.

2.1 Maimonides

One model for design problem conceptualization that I found and have used for more than 40 years to think about this conundrum comes from Rabbi Moses ben Maimon (רבי משה בן מימון) or Maimonides, also Rambam (רמב"ם). His *Guide for the Perplexed*, written in the 12th century, presents a model that postulates the concept of truth and falsehood as separate and opposed or unconnected to the concept of good and evil.

Although there are enormous numbers of commentaries on this work and interpretations of it, I found my own interpretation of a key part of it. Discussing *Bereshis*, the Book of Genesis, Rambam explicates the incident of Adam and Eve disobeying God's first command and eating from the fruit of the tree of *knowledge of good and evil* (Maimonides, 1190, pp. 96-97). To set the stage:

God tells Adam (Genesis 2:16-17):

2:16

לָכֵן רָמָא לְאֵל מְדַאֲהֵלְלַע מִיְהִלְלָא הַהוּוּ וְצִיָּו
לְכָאֵת לִכְנָא וְגַהֲרִיָּע:

2:17

יָכֻוּנְמָא לְכָאֵת אֵל עֲרָו בּוּטְ תַעֲרָה זִעְמָו
וּמָתָ תּוּמְ וּנְמָמָא כִּלְכָא מוּיָב:

2:16: “And the LORD God commanded the man, saying, “Of every tree of the garden you are free to eat;

2:17: but as for the tree of knowledge of good and evil, you must not eat of it; for as soon as you eat of it, you shall die.”² (translation, Sefira, 2011).

Here is how Rambam explains the story.

“... the intellect which was granted to man as the highest endowment, was bestowed on him before his disobedience. With reference to this gift the Bible states that “man was created in the form and likeness of God.” On account of this gift of intellect man was addressed by God, and received His commandments, as it is said:

וְצִוָּו יְהוָה אֱלֹהִים עַל־הָאָדָם.

‘And the Lord God commanded Adam’ (Gen. ii. 16)—for no commandments are given to the brute creation or to those who are devoid of understanding.

Through the intellect, man distinguishes between the true and the false. This faculty Adam [and Eve] possessed perfectly and completely. The right and the wrong are terms employed in the science of apparent truths (morals), not in that of necessary truths, as, e.g., it is not correct to say, in reference to the proposition “the heavens are spherical,” it is “good” or to declare the assertion that “the earth is flat” to be “bad”: but we say of the one it is true, of the other it is false. Similarly, our language expresses the idea of true and false by the terms אמת [emet, truth] and שקר

2. The Talmud states in Sanhedrin 56 that these two verses do double duty in conveying to Adam asymbolic or metaphorical mnemonic for the seven Noachic laws.

[sheker, falsehood], of the morally right and the morally wrong, by טוב [tov or tov, good] and רע [ra', bad or evil]. Thus, it is the function of the intellect to discriminate between the true and the false—a distinction which is applicable to all objects of intellectual perception.

Before they violated Her command and broke what was *de facto* the first covenant between humans and the God of the Torah, presumably Adam and Eve lived in a kind of perfect state of bliss. In this state, they enjoyed a direct knowledge of their *Creator* and her Creation. In this knowledge, they could know absolute truth and recognize its opposite—falsehood—in all its degrees from absolute to commonplace.

Note that Rambam calls this insight *necessary truth*. Imagine necessary truth existing on an axis of data that is orthogonal to the axis of knowledge of good and evil. That is the knowledge of the profane, the everyday, workaday knowledge of getting by, of just surviving. Like cartesian coordinates, these axes intersect only at *0,0 knowledge*.

So, when Adam and Eve ate of the fruit of the tree of knowledge of good and evil, God's **punishment** for them *was to give them that knowledge of good and evil*. Although Adam and Eve retained their intellectual faculties, the experience of acquiring the knowledge of good and evil effectively wiped out their ability to know truth, to know *necessary truth*. By inference, they lost most or all of their ability to distinguish between truth and falsehood. Being thus afflicted with the knowledge of good and evil, Adam and Eve were constantly asking, "Is this thing better than that thing?" Or, to keep to the horticultural metaphor of *Paradise Lost*³, the vanished Garden of Eden, "Is this berry better to eat than that berry? Is this flower better to sniff than that flower?"

So how does this half-baked theologizing relate to tradition and innovation? The way I conceive it, tradition is rooted invariably in the knowledge of good and evil. We have always done x this way, therefore it is right. Those people over there do x differently, so that is wrong. What is more, sometimes, they do y instead of x, which is even worse. Tradition has little to do with necessary truth.

Still, tradition is not automatically synonymous with tribalism, ethnonationalism, doctrine, or adherence to any particular stylistic mindset. However, there are overlaps. None of these observations imply that tradition itself, *per se*, is evil or good. Most traditions simply are, simply exist, carried on by the family, the clan, the tribe, the state, the nation—indeed—the people—who inherited.

2.2 The analytical framework of necessary truth

Following Rambam's set up (or my interpretation of it), if tradition sits on the axis of the knowledge of good and evil, the way to innovate (insofar as I experience it) is to learn the necessary truth about the design problem space. In that moment of *knowing*, the flash of insight occurs—that blazing photon of truth—that tells the architect, the artist, the designer, the engineer, or the inventor that another way is possible. To apply Rambam's terminology, does the status quo way reflect a *necessary truth*? Why not do it another way that could be different? Not good, not better—just POSSIBLE! The claim that a different way is *better* or *worse* on the axis of good and evil can come only after a great deal of hard work, testing, and usually many failures by the creator (the small "c" creator).

That is the flash of insight I have been very fortunate to experience a few times. Sometimes it proves successful, more often not. But the point is that this glimmer of necessary truth is the font of profound insight that leads to true originality.

Life in much of engineering—especially System Engineering—as practiced today operates within the multitudinous gray scales of good and evil. Is widget A a little better than widget B? Does item c give a measurably better performance than item d? Is that small difference statistically significant? Having lived their entire professional careers in the fog of shades and tints of gray, some people may become so neurologically or neurotically inhibited from seeing truth and falsehood that they oppose innovation, period.

Money affords the ultimate gray scale. Does X cost less? Does Y return more profit? More return on investment? Thinking this way would be anathema to all forms of creative innovation in art, design, and engineering. Yet it comprises the calculus that drives so much of human activity.

2.3 Necessary truth and the suitport

My patent that best reflects the analytical framework of the axis of necessary truth versus the axis of good and evil is the Suitport Extravehicular Activity (EVA) Access Facility. The model of these axes represents an analytical approach of inquiry to anticipate and comprehend the design problem space and hopefully find a transformational solution. It is not a prescriptive design solution-seeking method.

The Suitport constitutes a kind of "airlock-less" airlock for spacesuits, or to put it into NASAspeak, for an EMU⁴. which is an early case of an acronym within an acronym: an EVA

3. Apologies to John Milton.

4. EMU is an early instance of a NASA acronym within and acronym, standing for EVA Mobility Unit.

Mobility Unit. Before the International Space Station (ISS) Program, the paradigm of an EVA airlock was simple. It consisted basically of a big hermetically sealable container that the crew could depressurize when they wanted to “go EVA,” that is egress the spacecraft. After ingressing back into the airlock, the crew would seal the outer hatch, repressurize the airlock, and be able to doff their EMUs and breathe the air.

The problem with this traditional method of using the big dumb airlock (or BDA, even detractors can make up acronyms) was that it required sacrificing the volume of air in the airlock. For a future airlock of 6 to 8 m³ (212 to 283 ft³), that amounts to a significant and painful loss. Even if one wanted to save (most) of the air in the airlock, it takes crew time while transiting the BDA, electrical power, and pump cooling to pump down the air into a separate storage container under higher pressure. Also, in the conventional schemes such as the Voshkhod inflatable airlock, the Skylab airlock, and the airlock on the Salyut stations (and later on Mir), the only place to stow the suits when not in use was in the BDA. For the ISS, which anticipated many frequent and “routine” EVAs, this scheme could not succeed.

Also, I was very concerned about the Skylab precedent of the airlock segment situated between the Orbital Workshop where the crew lived and the Multiple Docking Adapter (MDA) where the Apollo CSM docked. When a buddy pair went out EVA, leaving the airlock depressurized, the third crew member was required to retreat to the MDA lest he be cut off from escape in an emergency. Placing the entrance to the Space Station between modules that it must isolate and separate when the entrance was in use seemed self-defeating at best. There was also the issue of the several hours required for the crew to prepare the suits for the EVA and the additional hour required to conserve the atmosphere in the airlock by pumping about 90 percent of it down into a tank.

I was thinking that the Space Station would need a kind of formal—not just functional or, rather partially dysfunctional—entrance. I was thinking about the *Propylaea*, the ceremonial entrance to the Acropolis in Athens, wondering, “Does the Space Station need a *Propylaea*?” I was in one of the Ames EVA Branch spacesuit labs looking at the AX-5 rear-entry hard suit mounted on an unpressurized donning fixture shown in Figure 1. A whisper chanted in the back of my mind, orbiting in ellipses:

- Anticipatory, comprehensive, *falsifiable*?
- What are they *not considering*?
- What is the *necessary truth*?

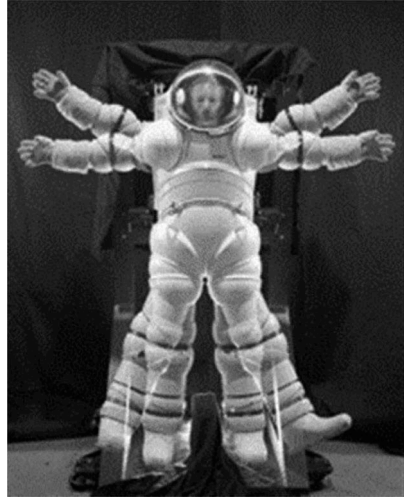


Figure 1. AX-5 “Hard” Spacesuit, mounted on the unpressurized donning fixture. The astronaut is evoking Da Vinci’s *Vitruvian Man* with his arms and legs. Designed by Hubert C. “Vic” Vykukal, Ames Research Center. NASA Photo.

The flash of ***absolute truth*** that hit me was: *Why pump down at all?* Is pumping down the airlock a necessary truth? *Why not just seal the rear-entry port to the pressure bulkhead?* Sacrifice only the small interstitial volume of air between the suit hatch and the station hatch. Figure 2 shows the Suitport assembly. Note where the Portable Life Support System (PLSS) backpack seals against the pressure bulkhead, leaving the interstitial volume No. 92 as the only volume that needs to be sacrificed to vacuum. Save the mass of the pumpdown compressor and tank. Figure 3 presents a longitudinal section through an EVA Access Module, with the Suitport installed in the internal bulkhead.

Some colleagues to whom I have told this story brush it off, “You just had a *prepared mind*.” Certainly, possessing a “prepared mind” may help, but it does not explain the sharp departure from status quo.

With this design solution, the Suitport offers order of magnitude savings in atmosphere conservation, power, pump cooling, and crew time. It also has attracted support from the space community for its potential to control and mitigate Lunar or Martian dust from entering the space habitat living environment. The astronaut Michael Gernhardt built a full-scale, pressurizable working prototype of two Suitports into the NASA Lunar Electric Vehicle (LEV). He drove it as the NASA “float” in President Obama’s first inaugural parade in 2009. Figure 4 shows the LEV.

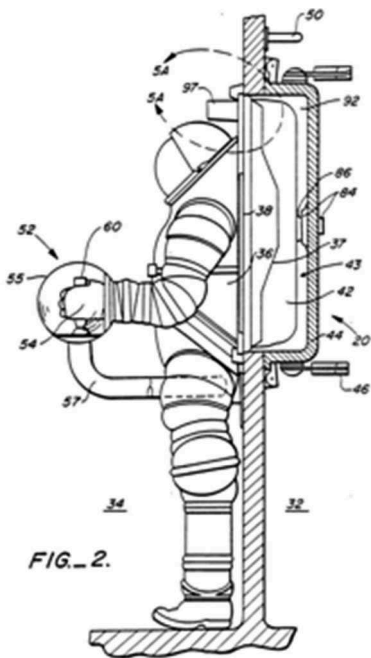


Figure 2. Cross-section of an AX-5 hard space suit attached and sealed to a Suitport. (Cohen, 1989).

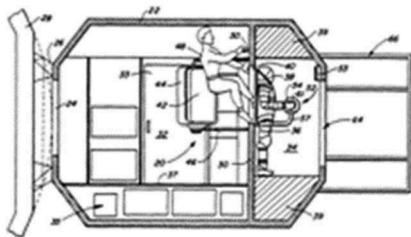


Figure 3. Longitudinal cross-section of a Suitport installed in a cylindrical EVA Access Module. The crewmember is donning an AX-5 space suit. (Cohen, 1989).



Figure 4. Lunar Electric Rover on Parade. Courtesy of NASA.

3 MODERNITY AND TRADITION

When I first considered this theme, *Innovation and Tradition*, my mind went quickly to the dialectic of Tradition and Modernity, which describes the balancing act that is part of my life. For some people choosing tradition or choosing modernity is an easy decision, not even really an actual choice in many cases. I always feel that I am balancing between traditional aspects of life and more modern aspects. I think of all the balancing I do about the multiple axes: tradition and modernity, the unity of knowledge and the fragmentation of knowledge, the continuity of Einsteinian time, and the discontinuity of how I experience it.

3.1 Classicism and Modernism

Within terrestrial architectural circles, there has been a robust dialogue for decades about the potential connections of Modern Architecture to its predecessor, Classical Architecture, and its integration with engineering. Modern Architecture was in its essence, a reaction against the over-decorated and stylized 19th-century forms of Gothic revival, Romanesque imitation, and other romantic departures. Multiple authors and architectural historians have written on this theme for or against, but mainly in favor of the connection. Among these historians, Alan Colquhoun, a British architect and professor at Princeton, stands out as a leading proponent (Colquhoun, 1991). Colquhoun directs his attention particularly to the Swiss modernist Le Corbusier. Colquhoun writes about what he calls Le Corbusier’s paradox of reason—actually, there is a multitude of paradoxes (Colquhoun, 1989, pp. 98-99):

Le Corbusier was evidently still acutely aware of the conflict between an aesthetic idealism leaning toward the classical and an avant-gardism that wished to embrace the most modern tendencies.

By committing himself to the general principles of modern engineering, the architect will rediscover the sources of his own discipline. To demonstrate this, Le Corbusier must first distinguish between engineering and architecture. The aim of the engineer is to provide what is useful. The aim of the architect is to arouse emotion. [...] In this theory, the difference between the architect and the engineer seems to lie in the degree of intentionality. Engineers make architecture, as it were, unintentionally. They make us feel harmony, but it is in the intentional manipulation of his feeling of harmony that the work of the architect lies. Thus, if in one sense, the engineer and the architect start from the same foundation, in another sense

architecture has its own basis, which lies in its ability to strike our senses by means of clear, simple forms. The engineer, proceeding by the route of knowledge, merely shows us the path of truth, whereas the architect makes this truth palpable.

Colqhoun is attempting to balance or rebalance the 19th-century schism between architecture and engineering in his interpretation of Le Corbusier. Because the engineer calculates the design according to the laws of physics, engineering follows a set of “universal laws.” The architect designs for the formal experience of the environment and all it can evoke emotionally, thereby following another—and presumably different—set of “universal laws.” Colqhoun thus attempts to reconcile the classicist claim to an architecture rooted in nature (and natural law) and the modernist vision of an architecture based on engineering and technology.

The place Colqhoun’s effort breaks down is where he ascribes “the path of truth” to physics- and math-based engineering. That relegates the architect to “making this truth palpable,” by which he seems to mean to give it form, volume, and a visual perception. This notion of truth in design is far more pedestrian than Maimonides’s necessary truth. Ultimately it does not reunify architecture and engineering but rather merely asserts their division of labor.

3.2 *The unity of knowledge (or the lack thereof)*

Colqhoun demonstrates the ongoing struggles in architectural design, history, ideology, practice, and theory. Taken together, they make quite an academic rabbit hole. However, the conflict lies primarily in the time-honored art of making fine distinctions.

For me, the reason for these struggles may be that I always see connections much more strongly than I see separations. When I first started junior high school (middle school) going to classes in different subjects with different teachers somehow *did not make sense*. In a fundamental way, I could not see the subjects as isolated and distinct from one another. Without physics, mathematics had no purpose. Social Studies (history) and literature had no separate existence. Without the chemistry of paint, clay, and glaze, art could not happen.

3.3 *Dis-continuum of time?*

Often, I feel a similar way about time, that the connections across the years, centuries, and millennia are stronger than the passage. According to Steven Hawking, time is not a social construct (1988). Rather, it exists independently of human perception and psychology. How we perceive time may evoke a cultural, psychological, or social response. In this respect, I feel like I am on a sort of temporal slide

that allows me to slide forward and back through temporal space, or as Einstein would have it, the space-time continuum. After all, *what good does this time continuum do us if we are always stuck in the present?*

3.4 *Dis-unity of architecture and engineering*

A parallel phenomenon overtook the entwined development of architecture and engineering. Until the late Renaissance, there was no breakdown between architecture and engineering. Gradually civil and structural engineering began to emerge as their own disciplines. By the early 19th century, when J. N. P. Durand founded the École Polytechnique in Paris, the split became complete. Since that time, engineering and the sciences have split many times into a vast multiplicity of different specialties. The practice of Architecture too began to fragment along the lines of specialized building types. In the 1980s, clients in the USA began to complain that increasingly architecture firms were no longer “full service.” Instead of doing the complete design themselves, architecture firms began contracting-out for civil, electrical, mechanical (plumbing, heating, ventilating, and air conditioning), and structural engineering.

Meanwhile, I have not ceased to see the unity of Architecture, Art, Engineering, and Science through the connections among them. In this respect, I plead guilty to being a traditionalist—perhaps a paleo-traditionalist, just like I am a paleo-modernist. Insofar as the modern world demands the fragmentation of knowledge and creative design effort, it encourages the stovepipes between small groups of hyper-focused professionals who may be barely educated about anything else. This is a situation that I have encountered many times in the aerospace design field. When I was working on the integration of the “System of Systems” for the Northrop Grumman/Boeing proposal for the Orion Crew Exploration Vehicle, I discovered that there were 16 separate engineering stovepipes. None of them talked to the others. But for my work, I needed to talk to all of them. Often it was difficult just to introduce myself because some of them could not imagine why they should want to talk to me or anyone outside their stovepipe on this project. When I introduced concepts about how the crew would operate the Orion for a vast array of tasks, one of the Boeing operations managers contradicted me, “If you’re not burning propellant, it’s not an ‘operation.’”

But it’s the CREW exploration vehicle,” I retorted. “When the crew does anything for the mission inside or outside the spacecraft, it is an operation.”

This manager could not accept my statement. Is this what modernity has bought us — this ever-fracturing of design and design knowledge? The steady proliferation of narrowly-focused journals,

each one wanting its own “manual of style” and peculiar system of reference citation?

3.5 Using historical methods

The way I see these long-deceased theorists and their buildings is that they speak to me. The same experience and meaning that the architect intended for her client is what I experience or at least want to experience. It does not concern me that this work may have influenced others or benefited from someone else’s influence.

The methodological and theoretical books communicate to me even more strongly. When I read Vitruvius, Alberti, Palladio, Serlio, or Gropius, I do not hear them as speaking only to their contemporaries (much less only to Art Historians). I experience them as speaking directly to me across the centuries and millennia.

In contrast, most architecture students are taught a very watered-down Marcus Vitruvius Pollio, 1st Century BCE. through these two mantras:

1. *Firmitas, Commoditas, Venusitas* (Firmness, Commodity, and Delight; or Strength, Usefulness, and Beauty) and,
2. The column is the principal ornament of architecture.

So, what is the principal ornament of *Space Architecture*? I would argue from what little we have to go on so far, it is the handrail, both interior and exterior. THAT would be a different essay.

3.6 Vitruvius and privacy

For a counter-example to these recitations that offer something timeless—and transcends gravity regimes—I look to Vitruvius. In his *Ten Books on Architecture*, Vitruvius gave the first known definition of privacy in architecture and contrasts it to public spaces (Vitruvius, 1st Century BCE, Section 6.5.1):

The private rooms are those into which nobody has the right to enter without an invitation, such as bedrooms, dining rooms, bath-rooms, and all others used for the like purposes. The common are those which any of the people have a perfect right to enter, even without an invitation: that is, entrance courts, *cavaedia*, peristyles, and all intended for the like purpose.

However, the ancient Romans threw a twist into what we today would consider private or a private function. In modern times, the bedroom and the bathroom or water closet are the most private rooms. But for the Romans, the dining room was the most private while the toilet room was more public, a place of invited conversation among friends or family sitting

side by side. A bedroom was possibly less private than the dining room since the bedroom “guests” did not need to be of the same economic or social class. However, to break bread with someone from a lower class was more of a taboo, hence the ultimate private nature of the dining room. ‘

There are only limited examples of “private spaces” in space habitats. The Skylab Crew Quarters Deck included the first private sleep compartments. Figure 5 shows a sketch of the three sleep compartments. Raymond Loewy, the industrial designer, laid out the plan so that the floor area of each would be a different shape to give each one a separate identity. The mission patch for the Skylab II mission (the second crew rotation) displays Leonardo Da Vinci’s drawing of Vitruvian Man, a most appropriate emblem, shown in Figure 6.

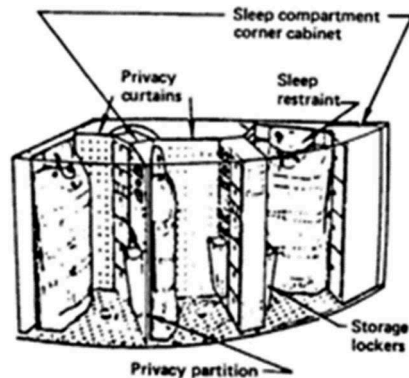


Figure 5. Skylab Crew Quarters sleep compartments (total floor area 6.5m² (70 ft²). NASA Man-System Integration Standard, NASA STD-3000.



Figure 6. Skylab II mission patch, displaying Leonardo’s Vitruvian Man.

3.7 Palladio and space station

Andrea Palladio was possibly the most influential architect ever in the Western world. Architects have copied his style and borrowed his elements all over Europe, North and South America. In *The Four Books on Architecture* (1570, p. 28). Palladio offers three formulae to calculate the proper ceiling height of a room based upon its proportions and size. When I was designing the space habitat module for the Space Station Proximity Operations Simulator, it was necessary to determine this ceiling height for a module “room” with a longitudinal vaulted ceiling.



Figure 7. Oblique view of the Space Station Proximity Operations Simulator. NASA photo.

In practice, this exercise meant determining the physical floor height within the horizontal cylinder. This floor height would then indirectly define the ceiling height. I tried all three of Palladio’s formulae, all of which are based on his proportional method of *the sesquialteral*. None of these methods worked perfectly, but once I understood their deep structure, I was able to adjust them to solve the problem. That exercise set the floor height at 0.73 m (2.4 ft) above the bottom of the horizontal module cylinder. So, the floor to ceiling height came out at 3.55 m (11.6 ft). Figure 7 shows the width and height of the simulator window bulkhead with its controls and displays.

More recently, I referred to Palladio’s method of connecting rooms and assigning functions to them in a paper on the configuration of lunar lander habitable modules. I made specific reference to Palladio’s drawings of the *Villa Emo* to apply his method of connecting rooms by function within a mathematically derived grid (Cohen, 2010, p. 6).

So, here I am, working on the human spaceflight program for NASA, and later Northrop Grumman,

and then for my own former company, Astrotecture®, but making use of these long-past *traditional* architectural precepts and design methods. This apparent difference in direction often causes cognitive dissonance for people who hope to understand Space Architecture and how I do it. The idea that there is no expiration date on a good idea runs contrary to our “modern” throwaway society disposable-everything consumer culture. In the wonderful film, *Hidden Figures*, Katherine G. Johnson (Taraji P. Henson) says they can use Euler’s method to calculate John Glenn’s reentry trajectory and landing point.

A young engineer complains, “But that’s so old!”
“But it works” replies Katherine Johnson calmly.

3.8 Academia

Academia is not immune to such trends and fads. In many universities today, most professors give at least lip service to being “interdisciplinary.” What that means in practice is that once a year, an engineering professor has lunch with a literature professor, and they talk about their children. I have run into this situation myself at about a dozen universities. In one way or another, they all make the same objection, “You do so many different things; you work in Architecture, life support, EVA airlocks, habitability, human factors, and structures, etc. How can you work in so many different disciplines? We would not know in what department to put you! You would not fit anywhere!” And all the while, I think I’m doing just one thing: Architecture.

Here is the rub. Academia can tolerate people from different fields working together in a multidisciplinary way. Unfortunately, Academia cannot seem to handle people who work in multiple fields simultaneously or make connections between them. To paraphrase *Ghostbusters*, “Important safety tip: Don’t cross the beams.”

4 MODERNITY AND INNOVATION

Innovation is often considered synonymous with modernity, but it is not. Granted, the only constant in our lives is the ever-increasing pace of change⁵ that tends to define modernity. But are these changes all innovative? If they truly are innovative, will they be welcomed? If it is truly innovative, is it necessarily fast-paced?

4.1 The triangular-tetrahedral space station

In *Continuum of Space Architecture* (2012), I trace the evolution of understanding of the Platonic Solids from Earth to orbit. In The Dialogue of Timaeus,

5. Prof. Richard Duke at the College of Architecture and Urban Planning at the University of Michigan—Ann Arbor coined this expression.

Plato describes the five solids that have a single polygonal face, and he ordered them according to the number of faces: Tetrahedron, cube (or hexahedron), octahedron, dodecahedron, and icosahedron.

Leonardo da Vinci drew the Solids with an emphasis upon the edges or struts. From a modern computer-aided design perspective, he drew them as wireframe models that dissolve the faces.

Buckminster Fuller took the Solids to a higher level entirely in *Ideas and Integrities* (1963). He placed the emphasis on the vertices and reordered them by the number of vertices: tetrahedron, octahedron, cube, icosahedron, dodecahedron. I took Fuller’s stress upon the importance of the vertices or nodes and applied it to a configuration for a space station (Cohen, 1988).

The previous NASA and contractor concepts presented Space Station configurations composed entirely of cylindrical modules and cylindrical tunnels called multiple berthing adapters (MBA) connected together in an awkward and largely unworkable rectangle. Making these right-angle connections to form rectangles of modules would impose potentially large bending moment forces that the structure must resist across the width of the docking port.

Adding spherical nodes would provide the additional and hopefully sufficient berthing ports for other pressurized modules or cargo carriers and docking ports for spacecraft such as the Soyuz or Space Shuttle Orbiter. Therefore, it would be advantageous to maximize the number of nodes relative to the modules. The polyhedron that gives the highest ratio of nodes to struts — in this embodiment as pressurized cylindrical modules — is the tetrahedron with four nodes to six modules.

This year, the shortage of docking ports on the ISS proved the Triangular-Tetrahedral geometry prophetic. On at least two occasions, the lack of an open docking port, compelled either a delay of a launch (Howell, 2021) or the relocation of a spacecraft already docked to the ISS (Matthewson, 2021).

The triangular/tetrahedral geometry imparts a structural advantage as well. The predecessor rectangular configurations (plus the cube and dodecahedron) are not self-rigidizing. They achieve structural stability only through the stiffness of their joints. Where that joint involves a berthing hatch connection, the attached pressurized module can impart a large bending moment that exerts a force on the berthing hatch frame. The frame must resist this force with a resisting moment arm across the diameter of the berthing hatch.

A triangular-faced polyhedron does not present this structural shortcoming. Because the triangles act like the pin-jointed truss members, there is no bending moment to resist at the joints. Their berthing port need not provide a moment-resisting arm across its diameter.

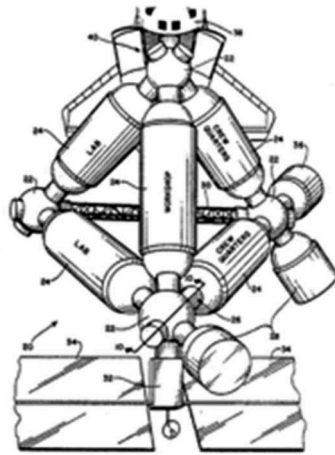


Figure 8. Triangular/Tetrahedral Space Station, US Patent 4,728,060. 1988.

4.2 Space station nodes

In this patent, the baseline configuration is the tetrahedron with spherical nodes at the vertices. This patent introduced the spherical nodes into the NASA *Space Station Freedom* in the October 1985 Requirements Update Review 2. Subsequently, NASA “rationalized” the nodes to short cylinders to make the hardware consistent with the “common module,” particularly the frusta-conical end domes. The nodes persisted in the ISS.

4.3 Space station cupola

The 1988 Space Station Architecture patent incorporated the cupola as a domed window assembly attached to a radial berthing port. The idea for the cupola and the radial ports in combination stemmed in part from Filippo Brunelleschi’s *Duomo* in Florence. Shown in Figure 9, the *Duomo*’s cupola on top looks out in all directions. The rondel windows around the base of the dome form a radial band of openings (that allow for thermal expansion).

Figure 10 shows how the Cupola mounts on a hemispherical segment derived from a structural node. This arrangement introduced the cupola concept that now flies on the ISS, attached to an Earth-pointing radial docking port on a node.

Figure 11 shows the spherical nodes and cupola as introduced into the SSF configuration in lieu of connecting tunnels and MBAs.

Figure 12 illustrates the Cupola that the European Space Agency (ESA) built to NASA specifications, mounted on a radial part of the *Tranquility* Node 3.

Figure 13 shows a closeup exterior view of the ISS Cupola, with a Progress freighter spacecraft docked to the Russian segment in the background and a Soyuz spacecraft to the left.

Figure 14 shows an astronaut at the robotic control workstation inside the ISS cupola, with the blue Earth below.



Figure 9. Brunelleschi's Duomo of the cathedral in Florence, with the horizontal band of radial rondel windows and the cupola.

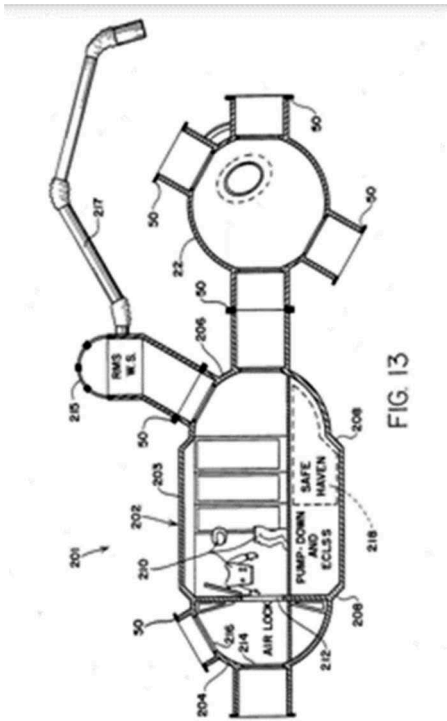


Figure 10. Longitudinal Section through a spherical node, space station module, and cupola (No. 215) attached to a berthing port. US Patent 4,728,060. 1988.

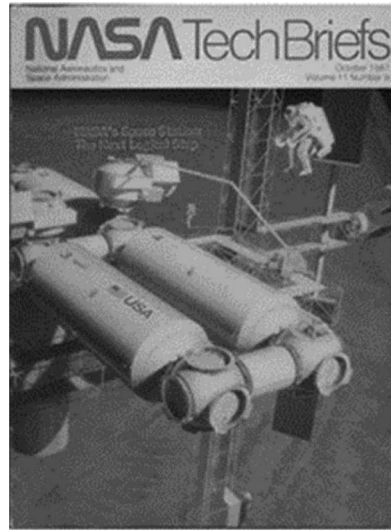


Figure 11. Space Station Freedom configuration with spherical nodes and the Cupola mounted to a berthing port on the spherical node on the right. October 1985.

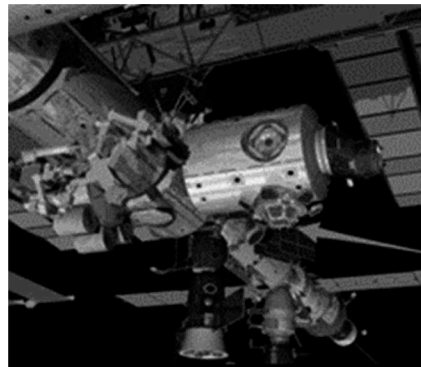


Figure 12. ISS Cupola mounted on a radial berthing port of Node 3, Tranquility. Artist Credit: Jessica Orwig/NASA.



Figure 13. Closeup exterior view of the Cupola, looking towards the Russian segment. NASA photo.

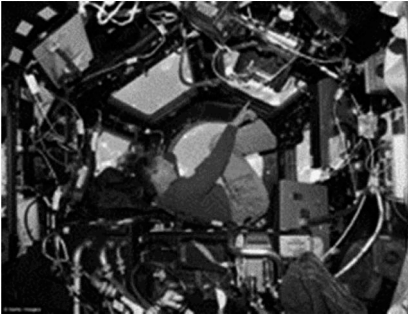


Figure 14. Interior view of the ISS Cupola, with astronaut Karen Nyberg. NASA photo.

5 INNOVATION AND TRADITION

Here we come full cycle back to the starting theme: *Innovation and Tradition*. At this point, it becomes felicitous to inquire further into innovation, or more precisely, into modes, styles, or types of innovation.

Many people balance their lives to some extent between tradition and modernity. But that is quite different from the dialectic between tradition and innovation.

Sometimes my path teeters across a landscape of unraveling tradition in the sense of extended family that my children don't know and may never care to know. I may be the last one to know that immigrant generation, who heard first-hand their stories of struggle and travail to leave the old country and come to the new. Modernity often means a universe of new opportunities. Some of these opportunities inherently involve innovation of various kinds with concomitant letting go of traditions. Most commonly, modernity and its innovations give the opportunity to improve the standard of living far above what the family in the old country could even begin to imagine.

5.1 *The consumerist fallacy*

One way the dialectic between *Innovation and Tradition* manifests itself is that many people believe that what they consume – what they buy – defines who they are. These patterns of consumption mediate between tradition and modernity for these citizens in some fundamental, meaningful way. In this narrative/scenario, the clothes you wear, the car you drive, the style of furniture you select, and the media to which you addict yourself all shape your identity, cultural inheritance, and social status.

In modern society, far too many people define themselves primarily by what they consume. This consumption stems from the myriad flood of promotions and imagery that deluge—what's the word? —*consumers*. Even though some of the “influencers”

of consumption may acquire wealth in the \$billions, the belief system, indeed *the tradition*, they promulgate conveys the same fallacy.

In my jaundiced view, this overwhelming emphasis on conspicuous consumption is an indelible outgrowth of *the tradition of industrialized society*. But what is more important, this tradition of consumption as the existential expression of one's identity demonstrates entrapment on the axis of the knowledge of good and evil. The more one believes that if she could buy only the next model Jimmy Choo shoes or if he could buy the next upgrade to the iPhone XXX, that all will be well with the world.

On the contrary, this compulsive consumerism is part of what poses an existential threat to the survival of the human species and indeed to most life on our planet. Think of all the plastic waste pollution, much of which comes from packaging unnecessary consumer goods. The energy to produce all these superfluous products converts ultimately to heat and carbon dioxide that drives climate change. These traditions of consumption may add up to a slow-motion suicide for our species, *homo consumians*.

5.2 *Glass box methods versus blackbox methods*

We move from the consumption side to the production side when we begin to talk about designing. This section offers a much-simplified excursion into design methodology. These methods under discussion are: Glass Box, Black Box, Persuasion, and Participatory Design.

Glass box methods are systems of rationality that seek to establish progressive gateways to check for errors and safety hazards before allowing a design or project to pass through to the next step. System Engineering is the preeminent glass box method. Robert Machol almost single-handedly founded System Engineering in the 1950s and developed his Handbook as what Kuhn calls a standard text (Kuhn, 1970). NASA adopted, accelerated, and developed System Engineering further as the major enabling discipline for the Apollo Program and subsequent programs (e.g., Shuttle, Space Station, Orion, Artemis, etc.). The methodology of System Engineering is to make every aspect of a project explicit, knowable, and measurable, checkable and checked, testable and tested, so the people engaging in it can ensure a successful outcome.

Black-box methods largely comprise the processes inside the individual brain, when the creative juices flow, mixing with intuition, informed guesses, leaps of faith, and risk-taking. There is a whole academic sub-discipline devoted to studying and trying to understand black-box methods. They publish in journals such as *Design Studies*. These studies can be very valuable for understanding how a particular designer or population of designers worked on

a design problem and found a solution. While these investigations may be informative in the neuro-cognitive realm, they do not appear to offer much in the way of prescriptive tools for the designer. In sum, they tend not to be generalizable from one designer to another, much less the whole community of architects or Space Architects. The way I understand Black Box Methods is that they are largely unknowable. As for myself, I do not have a start button to begin working creatively.

What happens for me is that I encounter a traditional way of perceiving or conceptualizing something, but I read the data or the evidence differently. Arthur Conan Doyle describes exactly this phenomenon in “The Noble Bachelor” (Doyle, 1892, p. 127). After the bride disappears from the wedding breakfast, a clue is found. It is a piece of paper torn from a hotel bill with a note written on the back.

Inspector Lestrade hands it to Sherlock Holmes, who turns it over and reads the bill.

“This is indeed important,” said he. . . .

Lestrade rose in his triumph and bent his head to look. “Why,” he shrieked, “you’re looking at the wrong side!”

“On the contrary, this is the right side.”

“The right side? You’re mad! Here is the note written in pencil over here.”

“And over here is what appears to be the fragment of a hotel bill, which interests me deeply.”

Then, by tracing the prices of the items on the bill to the hotel whence it came, Holmes finds the runaway bride and her original husband, whom she believed had died years earlier.

That experience of seeing the facts on the opposite side from what everyone else sees is a recurring and critical facet of my innovative process. I can’t help it. In part, it relates to Robert Machol’s “What are they not considering?” What is more important is that people tend to develop assumptions and unsubstantiated expectations for many things. Then they find what they expect to see. At the risk of being often surprised or nonplussed, I try to avoid unsupported assumptions and instead endeavor to be open to new ideas, options, and possibilities.

5.3 Participatory methods

Beyond Glass Box and Black Box methods arise the so-called “second-generation” methods, which are mainly participatory design methods. A “third-generation” perhaps is emerging in cyberspace with new collaborative tools. Despite the power of the internet and the slew of collaborative tools, agile and nimble scrums that accelerate the design process,

a true generational change in design methods has yet to appear in a truly dispositive way.

As the name suggests, participatory design methods apply to bringing a diverse group of people together—often including stakeholders with conflicting interests—to work together on creating or finding a mutually tolerable design solution. Note that I do not say “mutually satisfactory.”

At their foundation of participatory methods are rooted in the *Symmetry of Ignorance*. Each participant brings her or his expertise and local knowledge to the table. However, what each participant does not know about all the others’ personal experience and insights renders everyone equally ignorant of those others’ reality. Appreciating the *Symmetry of Ignorance* is a first step to equality in the participatory design process.

In participatory design projects, a winning solution may be simply one that does not anger any of the stakeholders who go through the process—or does not anger them *too much*. In the larger context of participatory design, the key step—perhaps more than in other processes—is to agree upon a design problem definition. Whereas a traditional engineering design problem definition may anchor in the bedrock of quantitative performance requirements, the design problem definition in a participatory design process depends upon a far more subjective set of determinants. A participatory design problem definition exists only insofar as there is cultural, economic, political, and social agreement among the stakeholders and, by extension, among the design professionals who may facilitate the design process for these clients.

Participatory design has become *de rigueur* among many community development, urban design, and urban planning initiatives. This transition from top-down planning à la Baron Haussmann in the 1850s and 60s in Paris or the urban renewal (aka removal) projects a century later in the United States represents an important innovation at a societal scale. However, that does not mean that every person whom the project will affect casts an equal “vote” or can exercise equal influence in the process.

5.4 Systems of persuasion

Such flashes of insight as reading the “evidence on the opposite side” may enable starting an innovation, but it is far from enough. The designer, the architect, the Space Architect must formulate the concept, document it, and find ways to persuade other people to “buy-into” it.

Take the example of a recent trend (not rising to the level of a ‘movement’) of “Deconstruction.” The Deconstructivist mantra is Jacques Derrida’s insight that *at basis, all systems of rationality are systems of persuasion*. And that is true, well, and good.

However, Derrida failed to grasp that *Persuasion is extremely difficult*, especially with architects’ clients. Persuading people to accept an innovation is often much harder than creating the innovation itself. Advancing a space project through all the gates and checkpoints against error requires excellent powers of persuasion. In the case of many aerospace innovations, an inventor or principal investigator can fight her entire life to put just one exploration mission, one space science experiment, one technology development across the goal line.

5.5 *Technology Readiness Levels (TRLs)*

The two notions I employed earlier, concept formulation and proof of concept, are NASA speak for stages in the innovation development process. Each has a NASA code word for Technology Readiness Level (TRL). Concept formulation and proof of concept are TRL-2 and TRL-3, respectively. That’s right, NASA and other US government agencies have developed a scale to quantify the progress of conceiving, developing, and testing new innovations. In this culture, this tradition, nothing can really exist or truly stand on its own unless there is some way to measure its progress.

5.6 *Preventative methods*

However, thinking about innovation as just another rationalizable process that institutions can quantify tells us nothing about the innovation inspiration or process itself. Comprehending the underlying creativity and creative process demands an entirely different conversation. This conversation revolves around design methodology. All methodologies are to some degree preventative — to prevent error — and so are “prophylactic in their essence.” It is in this vein we see the specific manifestation of System Engineering, insofar as it has evolved today.

5.7 *Figures of Merit (FoM)*

In current practice, System Engineering analyses stand on foundation stones known as Figures of Merit (FoM). A project may write its FoMs in two different but parallel ways. The colloquial way is to express the purpose. The technical and even legalistic way is to express the performance metric associated with the FoM. Table 1 shows the FoMs that the Northrop Grumman Team pursued for NASA’s Constellation Program Altair Lander (2006-2010).

5.8 *Disruption*

Disruption is a popular theme in the world in Silicon Valley, where I live while writing this essay. There, disruption is considered a *good thing*. The idea is that by introducing a technology, it is possible and desirable to upset the status quo, drive economic, cultural, and social change, and even put the old-line companies out of business. And, of course, the successful entrepreneur is supposed to rake in \$billions for her disruption.

What is missing from this conceit is that these new technologies are not just disrupters, they may also become powerful enablers of new forms and activities not hitherto possible or even imagined.

To take one example, the telephone. Alexander Graham Bell first demonstrated the telephone publicly in 1876 at the Centennial Exposition in Philadelphia. The reception it received was positive, favorable, and impressed, but the potential of it, of placing it in every office, then every home, and much later in every pocket, was far from anyone’s consciousness.

What made the telephone economically and commercially viable was the development of the skyscraper. All of a sudden, there were hundreds, even thousands of people working for large business concerns, all within one building. Talking to other people meant traveling vertically in the building. Certainly, there were elevators, but they were slow and often temperamental. The Skyscraper office building constituted the first ready-made market for instantaneous telephonic communication.

Table 1. Figures of Merit for the Constellation Altair Lunar Lander.

Colloquial FoM	Technical FoM	FoM Metric for Reliability
Safety	Probability of Loss of Crew (PLoC)	1/1000 = 0.999
Mission Success	Probability of Loss of Mission (PLoM)	1/500 = 0.995
Affordability	Cost per Mission	\$ USD determined by model
Mass	Landed Payload Enabled	Kg of payload on lunar surface from the tyranny of the Rocket Equation
Crew Productivity	Crew Productivity (CP)	(Cohen, Houk, 2010)

Thomas Edison developed the electrical power generating plant, which he considered his most important invention because it enabled so many hundreds of other electrical devices.⁶ The Edison-type power plant made it possible to operate electric lighting, electric motors, and telephones without the weak, unreliable batteries that powered the precursor telegraph systems.

Communication technologies probably demonstrate the most consistent disruptive effect and the most dramatic impact over the longest period of time of any “disruptive technology.” Consider the societal changes and improvements that arose from each of these innovations in accuracy, audience size, fidelity, and speed:

- National postal system, including post roads and stamps (circa 1789 in the USA),
- Telegraph (1848),
- Telephone (1876),
- Radio (~1900)
- Television (1936)
- Internet (1968)
- Macintosh Computer (1984)
- Cellular phones (~1990)
- Smart phones (~2005)

The greatest scientific controversy about Thomas Edison’s work concerned his claim to “divide electricity” by inventing the parallel circuit. His contemporaries simply could not believe that it was possible for the parallel circuit to operate as Edison claimed. Today, the parallel circuit is the cardiovascular system of nearly every artifact that uses electricity.

6 DISCUSSION

To conclude, we look at the pros and cons, advantages and disadvantages of tradition and innovation. None of these assessments are dispositive or final. They fall more along the lines of “the preponderance of evidence.” Here are some quick examples.

6.1 *The misuses and uses of tradition*

It is too easy to be glib about Tradition in this context. The misuses can be anything any of us have wanted to get away from. The uses connect to all kinds of nostalgic and sentimental memories and the feelings associated with them.

Misuses

The quintessential misuses of tradition are:

- To oppose an innovation because of old habits without regard to performance improvements.
- “That will never work because we’ve always done it *this way*.”
- Because of reasons unrelated to the innovation itself:
- The cardinals supposedly telling Galileo they would not look through his telescope at the moons of Jupiter because if what he claimed was true, they would be “committing blasphemy.”
- Antisemitism, burning witches, racism, atavistic nationalism, and other abhorrent ideologies and practices.

Uses of Tradition

- Ethics and rule of law in regulating space transportation—commercial, governmental, or private.
- The historic architectural theorists speak directly to us now. (e.g. Vitruvius, Palladio, etc.)
- Understanding the cultural, economic, environmental, political, social context of a building site and setting.

Benefits of Tradition

- Maintain one’s comfort zone.
- Afford certainty (whether deserved or not) about the nature of reality.
- Transmit cultural, ethical, and social values to the next generation.
- Sustain and operate within well-understood engineering analysis, design methods, means of production, and standards for reliability and safety.

6.2 *The misuses and uses of innovation*

Our generation (i.e., mine), the “Baby Boom” generation, is the first to have its existence—or at least birth cohort—bounded by two major technological events: the atomic bomb at Hiroshima and Nagasaki and the Apollo landings on the Moon. These events constitute the nadir and the apex of human innovation and accomplishment.

Misuses of Innovation

- Twitter: Can one prove that anyone who posts to Twitter is not a total idiot?
- Nuclear weapons: We are still living with an existential threat for our species and ecosystem that is far more immediate than the threat of climate change.
- Climate Change caused by human action.

Uses of Innovation

- Almost everything we take for granted today—or at almost any moment in our too-busy lives.
- Medicine: the control of infection.

6. You can see a complete Edison power plant intact at the Henry Ford Museum/Greenfield Village in Dearborn, Michigan.

- Computerization: A smartphone has more computational power than existed in the entire world when I was born and probably than when I graduated from college.
- Instantaneous communications

6.3 The costs and risks of innovating

Everything new comes at a cost. Even if something does not go horribly wrong (e.g., Bhopal, Challenger, Chernobyl, thalidomide), there are costs and risks.

- Risk of Failure and its cost both financially and to mental health.
- Risk of liability for unanticipated consequences.
- Risk of putting people out of work who cannot then find jobs with their existing skills.

6.4 Benefits of innovation

- Make the world a better place, etc.
- Acquire wealth and power.
- Protect public health & safety – Definition of a Licensed Architect or Professional Engineer
- Reduce wasteful consumption
- Protect the environment
- Improve efficiency in many areas of process
- Enhance communication
- Resolve disputes without violence or war.

7 CONCLUSION

This essay presents one architect’s understanding of how innovation and tradition interact in Space Architecture. From an ontological perspective, unless one knows and comprehends the design precedents and the traditions they embody, one cannot *anticipate* or *comprehend* what constitutes a *true innovation* or if such is needed. I say ontological instead of epistemological or phenomenological perspective because architecture, design, and engineering consist of so much more than *knowledge, per se*. Space Architecture goes to the study of being—and surviving—in space. It is the study, theory, and practice of design for space living and working environments. These environments can and will support crews, bases, settlements, towns, and cities in orbital microgravity and in partial gravity on the Moon, Mars, and beyond.

There is an unfortunate but perhaps natural tendency among people who contemplate the practice of Space Architecture to assume that because they are entering a “new” field that whatever they do must — as if by default — be “innovative.” If one falls into this fallacy, one could not be further from knowing the *necessary truth*. Unless one knows

thoroughly the precedents and *tradition*, one cannot know what *innovation* is or what it needs to become.

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Waking up the trees: Reason, emotion and recovery in *The Lord of the Rings*

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ABSTRACT: Tolkien's experiences in the Great War not only enhanced his disgust with an ultra-technological modernity and reinforced his apparently reactionary nostalgia for pre-industrial bliss; it also paved the way for an angry and eloquent literary revolt against the machines. In *The Lord of the Rings*, the trees awake and strike back against political oppression and industrial blight in the shape of vengeful Ents, who combine reason and emotion in spite of their radical separation from humankind. However, Tolkien's portrayal of trees and forests in this work is not one of misty-eyed nostalgia, nor is it escapist; just like Men and Elves, trees are capable of both good and evil. At the same time, the anthropocentric world-view is subverted, and the very notion of good and evil is complicated by the fact that Ents and trees have their own agenda, based on both reason and emotion, in which the needs of other species are peripheral at best. In this paper, I look at Tolkien's portrayal of this process in *The Lord of the Rings*: from dormancy to an awakening, which triggers a response that in turn achieves a recovery of a more balanced and non-anthropocentric relationship with the natural world.

Keywords: Fantasy literature, J.R.R. Tolkien, *The Lord of the Rings*, Trees in literature, Ents

1 INTRODUCTION

Tolkien's literary use of trees and forests spans fifty years of writing, from the first tales set in Middle-earth, in *The Book of Lost Tales* (begun in 1916-17), to his last published work, *Smith of Wootton Major* (1967). They are one of the most salient leitmotifs in the *legendarium*, connecting people, tales, and ages, from the myths and tales set in Valinor, Beleriand, and Númenor in the First and Second Ages, on to Middle-earth in the Third. According to Doris McGonagill, this persistent prominence is related to the fact that "Tolkien's sylvan landscapes emanate an aura of memory and loss," based on "a triadic model that posits an original wholeness, followed by loss, leading up to the hope of eventual restoration" (150). In the five distinctive periods of Tolkien's *legendarium* — the Years of the Lamps, the Years of the Trees, and the Three Ages — we can perceive a recurrence of this "triadic model," consistently linked to arboreal concerns. In this way, forests and trees come through as one of the most important elements of Tolkien's oeuvre, and in spite of a constant diminution from Valinor and "downwards" through the ages, they reach their high point as a species at the end of the Third Age. At this point, the dormant trees awake and strike back in the shape of vengeful Ents; beings who combine reason

and emotion in spite of their radical separation from humankind to articulate a forceful response to the modern threats of political oppression and industrial blight.

By doing so, the trees reflect the idea that in Tolkien's world, enlightenment stems not from human reason only, but also from the Two Trees, from which the divine light of the godhead Eru Ilúvatar used to emanate, and whose influence extends across many tales and Ages. However, Tolkien's portrayal of trees and forests is not one of misty-eyed nostalgia, nor is it escapist: just like Men and Elves, trees are capable of both good and evil. At the same time, given that Tolkien subverts the anthropocentric world-view, the very notion of good and evil is complicated by the fact that trees have their own agency, reason, and agenda, in which the needs of other species are peripheral at best.

While Tolkien's experiences in the Great War enhanced his disgust with an ultra-technological modernity and reinforced his apparently reactionary nostalgia for pre-industrial bliss, it also paved the way for an angry and eloquent literary revolt against the machines, which appealed to the counter-cultural movement of the 1960s. An important reason for the success of *The Lord of the Rings* among American college students in that decade is that the book expressed an "ecological augury" (Campbell, 2011) long before such terms

became fashionable. Hippies were enchanted by the rural hobbits, with their simple and peaceful lifestyle in communion with nature; and the actions of the Ents, who put an end to Saruman's industrial blight in and around Isengard, became a forerunner to radical ecological campaigns in the real world. Tolkien himself seemed to favor such a hard-hitting response to the destructive effects of industry. As he says in one of his letters to his son Christopher, "there is only one bright spot, and that is the growing habit of disgruntled men of dynamiting factories and power-stations; I hope that, encouraged now as 'patriotism', may remain a habit!" (Tolkien, 2000, p. 64).

In the mid-twentieth century, books denouncing industrial and agricultural pollution, such as Aldo Leopold's *A Sand County Almanac* or Rachel Carson's *Silent Spring*, problematized the effects of the post-war industrial boom. In this context, the idea of nature striking back must have seemed both scary and attractive — Romantically sublime, as it were¹ — and Middle-earth, mediated through *The Lord of the Rings*, was for many readers in the 1960s equated with the triumph of nature over industry and pollution. In Carpenter's words, the "implied emphasis on the protection of natural scenery against the ravages of an industrial society harmonized with the growing ecological movement, and it was easy to see *The Lord of the Rings* as a tract for the times" (232).²

In Middle-earth, within the larger world of nature, trees become the natural and most eloquent catalyst of this type of reaction, mainly because Tolkien endows them with human-like reason and emotions. Here, both woods and individual trees are depicted as autonomous sentient beings to an extent that goes far beyond previous literary renderings of this species,³ taking on a much more prominent and active role than the traditional status assigned to them in literature and myth. By and large, in the Third Age, it is not Men or Elves that wake up and respond to this lethargy, but trees. As such, they become catalysts of 'Recovery',⁴ a concept which Tolkien explained in his essay 'On Fairy-Stories,' written as he embarked on what he thought would be the sequel to *The Hobbit*, but which instead developed into *The Lord of the Rings* (or, as he himself

famously called it in the Preface to the second edition of *The Lord of the Rings*, a tale that "grew in the telling" (2007a, p. xxiii)). One of the cornerstones of Tolkien's notion of "Recovery" is related to the capacity of fairy-stories to make us see "things as apart from ourselves" and perceive the world with fresh eyes (Tolkien, 2008, p. 67). Once it occurs, the trees' reaction is emotional, violent, and spectacular and shows them as powerful agents of recovery who perform a successful counterattack on the forces that threaten to obliterate both the trees themselves and the memory of older traditions.

The movement from lethargy to an awakening, followed by a forceful response which in turn leads to 'recovery,' takes place in many different arboreal locations. At the outset of the narrative, these are, in a sense, bubbles, separated and isolated from the rest of the world. However, as the story develops, the arboreal enclaves are disturbed by incursions that unsettle the sleepy atmosphere and prompts a reaction.

2 SLEEP AND OBLIVION

Following the general process of diminution outlined in the introduction, in *The Lord of the Rings*, trees are diminished in size and power compared to their predecessors in Valinor and Númenor. The same thing applies to people: at this moment in the history of Middle-earth, the connections with a more glorious past have grown increasingly tenuous. The Elves of Middle-earth are even further removed from Valinor than Beleriand had been, and now most of them dwell hidden in the wilds. As for the descendants of Númenor, they are but a shadow of their former selves, forgetting their roots and former nobility. In general terms, it could be said that instead of taking action, the most frequent response to the growing threat of Sauron on behalf of the Free Peoples is a drowsy kind of complacency. Rohan is becoming as dormant as their King, and Lothlórien is but a static reproduction of its Valinorean precedent. The White Tree of Gondor is dead and Denethor, the Steward, who lacks a new one to replace it, expresses no particular wish to find one.

The Shire, where *The Lord of the Rings* begins, is likewise marked by a parochial oblivion of what is going on in the greater world beyond its borders. The Shire is but a remote corner of the world where the Hobbits lead quiet lives in their rustic retreats as if things would never change. The Gaffer's response to his son Sam's dreams of seeing the world is telling: "Elves and Dragons! I says to him. Cabbages and potatoes are better for me and you. Don't go getting mixed up in the business of your betters, or you'll land in trouble too big for you" (Tolkien, 2007a, p. 31). On another occasion, Sam mentions his cousin Hal's sighting of an actual walking tree, big as an elm, not far

1. As Veldman writes: "Decades ahead of the Greens, [Tolkien] denounced the exaltation of mechanization and the narrow definition of economic progress that resulted in the degradation of the natural environment, and he did so in romantic terms" (1994, pp. 89-90).

2. See also Dickerson and Evans (2006, p. 92).

3. One notable exception that may have served as an inspiration for Tolkien is Algernon Blackwood, who also portrays trees as active agents of change in stories such as "The Willows" (1907) — which we know that Tolkien read (Cilli, 2019, p. 21) — and "The Man Whom the Trees Loved" (1912).

4. I will argue that the awakening of the trees becomes a powerful literary enactment of this concept.

away from the Shire, “and there ain’t no elm tree on the North Moors.” Local miller Ted Sandyman’s laconic response cuts his speculations short: “Then Hal can’t have seen one” (Tolkien, 2007a, pp. 58-59).

The Shire is dotted with trees, but Frodo and Sam seem to be the only two hobbits who really appreciate them for what they are. Even Bilbo has grown too complacent to see their inherent value, and at his Birthday Party, the Party Tree is used merely as scaffolding for lamps (Tolkien, 2007a, p. 34).⁵ With this, Tolkien hints at the fact that the Shire needs to be purged of its provincial complacency. In effect, the hobbits have to face the devastating consequences of modern industry in order to fully perceive not only the ugly reality of factories but also to regain a clear vision of the inherent beauty, value, and agency of nature — and above all trees.⁶ At the same time, it is also hobbits who set off the reaction that will eventually lead to recovery. As Frodo, Sam, Merry, and Pippin travel through the world, they wake up different kinds of arboreal agencies in different wooded “enclaves,” which have been out of touch with the issues of Men in the surrounding world for a very long time — bringing about a reaction that ends up invigorating old traditions in a radically new way.

3 AWAKENING

In the Old Forest, the trees remember. In Merry’s words,

‘They do say the trees do actually move, and can surround strangers and hem them in. In fact, long ago they attacked the Hedge: they came and planted themselves right by it, and leaned over it. But the hobbits came and cut down hundreds of trees, and made a great bonfire in the Forest, and burned all the ground in a long strip east of the Hedge. After that the trees gave up the attack, but they became very unfriendly’ (Tolkien, 2007a, p. 145).

This is an example of the autonomy and sentient qualities that Tolkien lends to trees as a species, conscious of themselves and their rights in the world. Here, the trees don’t care much if the harm is inflicted by Hobbits or Orcs; any two-legged creature is a potential enemy. For this reason, the trees

are stirred by the presence of the hobbits and subtly move in order to force them towards the river. Merry is baffled: “‘Well, well!’ he said. ‘These trees do shift. There is the Bonfire Glade in front of us (or I hope so), but the path to it seems to have moved away!’” (Tolkien 2007a, p. 146).

Later experiences in the forest corroborate his ominous words, emphasizing the autonomy, sentience, and ‘evil’ intentions of the trees: “Now stronger than ever they felt again the ill will of the wood pressing on them [...] Just behind them a large branch fell from an old overhanging tree with a crash into the path. The trees seemed to close in before them” (147-148). In the end, the hobbits are taken against their will towards the river, in the opposite direction of their intended course: “They were being headed off, and were simply following a course chosen for them” (Tolkien 2007a, p. 150).

While some scholars have argued that the intentions and ‘movements’ of the trees in this initial part of the journey through the Old Forest could be ascribed to a ‘natural’ behavior of trees (Cohen 2009) and to the hobbits’ minds playing tricks on them (Flieger 2018), Old Man Willow, who is standing by the river at the heart of the forest, doubtlessly has an agency of his own. The negative emotions of this “character” are expressed through a behavior based on calculated actions. First, he lures the hobbits towards him, then he casts a spell of drowsiness on them; and once they are asleep, he ostensibly moves his roots to drown, trap and swallow them. The hobbits are rescued by Tom Bombadil, who asserts that the large willow tree has a calculating mind of his own, and has cast a spell over the entire forest:

The countless years had filled them with pride and rooted wisdom, and with malice. But none were more dangerous than the Great Willow: his heart was rotten, but his strength was green; and he was cunning, and a master of winds, and his song and thought ran through the woods on both sides of the river. His grey, thirsty spirit drew power out of the earth, and spread like fine root-threads in the ground, and invisible twig-fingers in the air, till it had under its dominion nearly all the trees of the Forest from the Hedge to the Downs. (Tolkien 2007a, p. 170)

The poignancy of the episode in the Old Forest rests upon the eye-opening consequences of losing one’s way, stumbling into a different kind of reality, and inadvertently stirring up a violent reaction on behalf of something ancient and incomprehensible, quite beyond a Shire-dominated reckoning. As such, it echoes various disturbing passages in tales set in the First Age, in which heroes get lost among tangled trees that prevent them from seeing clearly and make them lose their minds, fall prey to evil and resort to various forms of

5. This, in itself, is a distant echo of the excessive emphasis on the utilitarian value of trees which in the end caused the downfall of Númenor (see Simonson 2018).

6. After the “Scouring of the Shire,” in an emotionally charged and symbolic act, Sam plants the mallorn nut given to him by Galadriel, in the Party Field where the Party Tree had stood. A new Mallorn tree grows to become the new Party Tree, which later turns into a site of pilgrimage, a symbol of past traditions and of beauty and wonder — of Recovery, in effect.

uncivilized behavior (Simonson 2017b). It thus connects the hobbits' frivolous shortcut with a much older reality, in which the world itself was untamed and free, and serves as a warning that there are other non-anthropomorphic entities in the world with a will of their own, that need to be taken seriously.

Shippey persuasively argues (2002, p. 202) that thick forests are seen as evil in Tolkien's works because they prevent the heroes from seeing the open sky and distract them from the possibility of transcendence. It is true that Tolkien frequently portrays dense forests, untouched by civilization, as negative: previous examples include the forests of Beleriand and those of Middle-earth when the Númenóreans first arrived there.⁷ Such a stance, however, is conceived of as negative, mainly for Elves and Men. Ents, Huorns, and plain trees are different species whose concerns differ from those of Men, Elves, or Hobbits, whose needs become secondary at best. This view is articulated already in the distant, primordial age of Middle-earth. In a conversation between Yavanna and Aulë, when the former complains that Aulë's Dwarves will not respect the trees but fell them indiscriminately for their own needs, Aulë replies that Ilúvatar has meant them to "use all that they find in Arda" (Tolkien, 1977, p. 52). Yavanna then secures a promise that with the coming of the Children, the Ents will also awake and protect the trees, and tells Aulë that the Dwarves should be careful, for "there shall walk a power in the forests whose wrath they will arouse at their peril" (Tolkien, 1977, p. 53).

In Fangorn Forest, the echoes of the intra-historical past include previous destructions of woodland: Saruman's war on the trees of Fangorn, cutting them down to feed his furnaces, can be compared to Sauron's successive ruining of Dorthonion in the First Age, the clear-cutting of trees on Númenor in the Second Age, and the darkening of Greenwood the Great earlier in the Third Age, albeit on a lesser scale.

In the First Age, the Ents assist Beren in retrieving the Nauglamír with the incrustated Silmaril that the Dwarves have stolen after slaying Thingol, but in the Third Age, their actions hinge much more on the rights of trees than on the needs of Elves and Men. As in the Old Forest, it is the arrival of hobbits to Fangorn that wake up the trees; however, this time, they awake to a new consciousness of themselves, and the actions of both Ents and Huorns are mainly intended to neutralize enemies in order to improve the lives of trees, redeem past injuries and recover

7. When the Númenóreans begin to colonize Middle-earth, they deliver the native human inhabitants from the darkness, literal and symbolic, of untended forests: "the Men of Middle-earth were comforted, and here and there upon the western shores the houseless woods drew back, and Men shook off the yoke of the offspring of Morgoth, and unlearned their terror of the dark" (Tolkien, 1977, p. 316).

the old Entish *raison d'être* before it is too late. "I don't know about sides. I go my own way," says Treebeard (Tolkien, 2007b, p. 607), and later explains that "I am not altogether on anybody's side, because nobody is altogether on my side, if you understand me" (Tolkien, 2007b, p. 615).⁸

4 REACTION

Once the trees are awakened, the arboreal reaction takes place in different ways. On one level, it is brought about by trees or tree-like creatures themselves, as in the Old Forest and Fangorn. On another level, Men and trees (or tree-like creatures) join against a common enemy, for instance, the moving forest that arrives with Gandalf and Erkenbrand to help defeat the Orcs in the aftermath of the Battle of Helm's Deep.

In the Old Forest, the response of the trees is to obliterate any external threat to their species, without bringing back any specific tradition from the past other than a more actively enforced survival instinct (vindicated by Yavanna in the mythical past of Arda, as we have mentioned). We see here the 'uncultivated,' 'barbaric,' and 'evil' side of trees. However, such qualifications stem from an anthropocentric point of view, while from the perspective of trees, the response is aimed at saving and sustaining their own community (based on the general premise of 'the less two-legged creatures, the more trees').

In Fangorn, on the other hand, while the response of Treebeard and the Ents is emotional and intuitive insofar as it is premised on a survival instinct, Treebeard also summons the Ents to an Ent-moot, where they debate the intended measures rationally.

Treebeard explains their resolve to take action in the following terms:

We Ents do not like being roused; and we never are roused unless it is clear to us that our trees and our lives are in great danger [...] it is the orc-work, the wanton hewing [...] without even the bad excuse of feeding the fires, that has so angered us: and the treachery of a neighbour, who should have helped us. Wizards ought to know better: they do know better. (Tolkien 2007b, p. 633)

Treebeard speaks of anger, motivated by a physical threat of extinction, but the resentment is also brought

8. In one of his letters, Tolkien expressed his personal concern for trees in similar terms when complaining about his neighbor's attitude to a nearby poplar, which "had been savagely mutilated some years before, but had gallantly grown new limbs [...] and now a foolish neighbour was agitating to have it felled. Every tree has its enemy, few have an advocate. (Too often the hate is irrational, a fear of anything large and alive, and not easily tamed or destroyed...)" (2000, p. 321).

by a rational analysis of the situation: the gratuitous felling of trees without any utilitarian justification, and the lack of rationality and understanding on behalf of their neighbor Saruman, who “ought to know better.” He does get carried away by his emotions at times, for instance, when he imagines how the Ents will “split Isengard into splinters and crack its walls into rubble” (Tolkien 2007b, p. 633), but the hobbits’ subsequent warning concerning Saruman’s probable counter-measures has a sobering effect, and Treebeard’s reply again underscores the rational dimension of the Ents:

‘Hm, ah, yes, that is so. I have not forgotten it. Indeed I have thought long about it. But, you see, many of the Ents are younger than I am, by many lives of trees. They are all roused now, and their mind is all on one thing: breaking Isengard. But they will start thinking again before long; they will cool down a little, when we take our evening drink.’ (Tolkien 2007b, p. 633-634)

Unlike the trees of the Old Forest, the actions of the Ents also serve to establish a place for trees in the new Kingdom by overthrowing Saruman and drowning his machines and workshops, which paves the way for the growth of new plants as well as a rational agreement of conviviality with other species. Treebeard accepts his role as custodian of Saruman in Orthanc — though he eventually lets him out since he hates to cage any living thing — and gives the tower back to Gondor, its rightful owner. In return, thanks to the outcome of the War of the Ring, the Ents are free to roam eastward (Tolkien 2007c, p. 1284). Treebeard declines the offer, saying that there are now too many Men in those parts, and offers a safe passage through Fangorn for those who wish to make use of that shortcut. In other words, he engages in a diplomatic exchange with those Men, Elves, and Hobbits (and a Wizard) who have proven reasonable.

5 RECOVERY

At the end of the Third Age, trees are used by Men as tokens or symbols of past traditions that enrich the present and sustain the future. The White Tree, which is withered and needs to be replaced with a new one, is an obvious symbol of the intimate connection between the traditional symbolism of trees and the Númenórean/Gondorian civilization (which itself originated through a marriage between Elves and Men). With the help of Gandalf, Aragorn finds a new sapling on the slopes of Mount Mindolluin, just behind the city of Minas Tirith. Miraculously, it turns out to be

a sapling of the line of Nimloth the fair; and that was a seedling of Galathilion, and that a fruit of Telperion of many names, Eldest of Trees ... It is said that, though the fruit of the Tree comes seldom to ripeness, yet the life within may then lie sleeping through many long years, and none can foretell the time in which it will awake. (Tolkien, 2007c, p. 1273).

Once the sapling is planted in the court, Aragorn and Arwen are married, and the Kingdom is renewed. The emotional value of this symbolic tree is based on the connection with one of the holy Two Trees, but a more earthly correspondence, where reason and practical concerns are added to the emotional side of the recovery, is found in the Shire, where Sam plants the seed of the mallorn he was given by Galadriel, to make up for the industrial blight inflicted by Saruman and his henchmen. Sam is unsure what to do with Galadriel’s gift and asks his friends for advice. Characteristically, the happy-go-lucky Pippin tells him to throw the dust (in which the seed is embedded) into the air and let the wind do its work. Merry, more rational, advises him to put the dust into one particular spot in the nursery under more controlled circumstances. Frodo, for his part, appeals to both reason and emotion when he says: “‘Use all the wits and knowledge you have on your own [...] and then use the gift to help your work and better it. And use it sparingly. There’s not much here, and I expect every grain has a value’” (Tolkien 2007c, p. 1338).

In this way, by combining reason with the emotional trust put into the workings of the gift itself, Sam goes about the country, planting saplings and adding a grain of the dust into the carefully prepared soil at their roots. As a result, the Shire flourishes at break-neck speed already in the next spring:

His trees began to sprout and grow, as if time was in a hurry and wished to make one year do for twenty. In the Party Field a beautiful young sapling leaped up: it had silver bark and long leaves and burst into golden flowers in April. It was indeed a mallorn, and it was the wonder of the neighbourhood. (Tolkien 2007c, p. 1339)

The Hobbits thus base their stewardship of trees on both reason and emotion, and one of the results is that the new Party Tree is admired for its intrinsic arboreal qualities and its beauty; not merely due to its future value as scaffolding for party decorations.

Even so, Tolkien’s vision is sober, taking an ample view of things that go beyond the habitual short-term perspective by which modern people tend to view the world. The Shire will not go on forever, and someday even this seemingly sustainable civilization is doomed to disappear. At an early moment in their journey, Frodo and his three companions

meet Gildor Inglorion, who provides Frodo with a perspective on the Shire that only a very old being, who has lived in the world for thousands of years, can possibly sustain. Gildor tells Frodo that the Shire, in effect, does not belong to him: “Others dwelt here before hobbits were; and others dwell here again when hobbits are no more,” he says (Tolkien 2007a, p. 109).

In this respect, Tolkien’s vision also goes beyond the anthropocentric: Gildor’s ambiguous choice of words (“others”) implies that it is not at all clear that future dwellers of this part of the world will even be humanoid beings. By the time Frodo and the hobbits return after their adventure, many pages later, it is clear to them that other sentient beings, such as trees, have been part of the world for longer than hobbits and Elves, that they will probably still be around when both hobbits and Elves have departed, and that their emotional and rational agency is at least as valuable as those of Hobbits, Men or Elves.

6 FINAL COMMENTS

While Tolkien’s trees originally embody ideas of stewardship based on a combination of art and science, imagination and reason (Simonson 2017a), after the Fall of Númenor, new layers of meaning are progressively added to the symbolism of trees, as the protagonists explore their relationship with other races and with the natural world — moving from the spheres of ideal utilitarianism on Númenor (Simonson 2018) to the more radical ecocentrism in Middle-earth. The trees now take on more ostensibly anthropocentric qualities, but without yielding completely to an anthropocentric world-view.

The difficulties of such a stance are not unambiguously solved by Tolkien, who refuses to provide any facile solutions. The Ents, at the end of *The Lord of the Rings*, still have a problem that is indirectly related to conflicting visions of stewardship: the Entwives have disappeared and with them the future of the species. The song of the Ent and the Entwife, sung by Treebeard, implies that the Entwives are more interested in farming the land than letting it slip into a state of wildness (which is what the male Ents have advocated for). For this reason, Flieger concludes that the “promise [...] of a land in the West” where both the feraculture of the Ents and the agriculture of the Entwives can coexist happily, “may be impossible to fulfill in Middle-earth” (2000, p. 158).

However, such a reconciliation might not be Tolkien’s aim. Gandalf, the messenger of the Valar in Middle-earth (Tolkien, 2000, p. 202), hints at just that: “it is not our part to master all the tides of the world,” he says, “but to do what is in us for the succor of those years wherein we are set, uprooting the evil in the fields that we know, so that those who

live after may have clean earth to till. What weather they shall have is not ours to rule” (Tolkien, 2007c, p. 1150).

Tolkien’s literary exploration of trees thus problematizes the issue of stewardship, as he refrains from siding completely with traditional, anthropocentric, and agricultural notions or with modern ecocentric, feracultural views in which human beings are sometimes construed as an evil and harmful species. In *The Lord of the Rings* older traditions are refreshed and invigorated by means of a largely arboreal reaction, made possible since Tolkien endows his trees — and those who act as stewards of trees — with reason and emotions as well as power and agency. However, such a renewal is no guarantee for perpetual bliss.⁹ We can never let the guard down, Tolkien implies, and, like the trees, we should remain watchful once we have woken up to a consciousness of ourselves and our place in the world.

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9. In later works, notably *Smith of Wootton Major*, trees and forests remained a paradox and came to represent the possibility of transcendence by means of art and gratitude in a mortal world. Trees are larger than ourselves, Tolkien implies, both literally and metaphorically, and we should do well to take into account the many different physical or spiritual forms they may adopt, individually and collectively.

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The Justification of slavery in modern natural law¹

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ABSTRACT: Since the classical conceptions, slavery always had a strong juridical support that granted it legitimation and critical considerations. As such, we should pay attention to the systematizing efforts of many jurists attempting to explain and justify the institution's existence and its functioning rules, connecting positive law with the principles of natural law and *jus gentium*. Through it, they strived at an ethical and legal validation of the theories and action of enslaving. We analyze the interconnection of the *jus naturale* theories with the legitimation of slavery throughout the modern age by studying the ideas of several Iberian theologians from the sixteenth century's school of natural law and of philosophers and jurists from the seventeenth and eighteenth century. Without the pretension of covering such a vast and complex topic, we focus on the arguments legitimizing the justifications of slavery.

Keywords: Slavery, Freedom, *Jus naturale*, Modern expansionism, Modern natural law, *Jus gentium*, Civil society

1

To have a historical perspective of the Modern Age (fifteenth to eighteenth centuries) requires a broad and serious reflection about the many aspects of slavery. This form of human exploitation was decisively marked by modern expansionism and the creation of huge overseas domains. Slavery acquired new features under the guise of the Atlantic slave trade while also maintaining those from earlier epochs, and because it centered predominately on the Africans and their descendants, it began to be designated as "African slave trade." The slave was the backbone of the colonial empires, the resource that enabled the exploitation of wide territorial extensions and the extraction of the products that promoted the expansion of the European markets. This led to the toughening of this practice and the intensification of this human trade in the eighteenth century when it reached unimaginable figures. The American colonization can even be seen as the turning point in the history of western slavery.

A system of exploitation essentially based on slave labor and the African slave trade commerce structure, which were for many centuries the driving force of the European countries' economic activities and political projection, impregnated the modern world's thinking and action. This was particularly so when they stimulated the conflict between concepts and opinions,

questioned the information and circumstances, and fostered the regulation of such practices according to ethical and legal principles. Given this, the study of slavery exposes a social condition and the features of the society that adopted it by way of how it theorized and practiced it. In a slave society, we should analyze not only the slave but also those that are free. It was a wide cultural issue taking shape across time and discovering and adapting to the most convenient and convincing new arguments and justifications.

Consequently, the study of the enslaved and their commercialization cannot be seen as a detail of the economic reality, the creation of large colonial empires, the mobilization of the workforce, and the exploitation of new productive sources. Besides its implications on the social realities of the various territories and its impact in the organization of the states, the powers, and the national and international political strategies, an analysis of the thoughts, trends, and movements constituted around the systematization of ideas and values, through which the justifying or condemning attitudes acquired their meaning, is equality required. Such analysis is also relevant as an inquiry into the mentalities and behaviors, where the interplay of mental states, psychological environments, and sensibilities within the reciprocal attitudes of free and enslaved manifested. Taken in its totality, it is a notable reflection on the human condition and its evolution across the global historical process.

In the Modern Age, given the particularities surrounding this period and the transformations

1. The text was translated into English by Eduardo Marques da Costa

occurring since the end of the Middle Ages, the traditional reasoning that ruled the demarcation between freedom and serfdom were necessarily reconsidered. Nonetheless, the institution of slavery, which came from ancient times and was made of both heritage and adaptation, carrying with it the imprint of customs, the recognition of religions, and the force of legal provisions, was never questioned. It was, in fact, the condition's legitimacy and the security of propriety law that, across history, enabled the absolute use of human beings as slaves, temporary or permanent, and their trade in national and international markets. Because of this, the legitimation of slavery became one of the most pressing and encompassing issues in western thought. Not only due to its persistence in time and the changes and adaptation circumstances demanded, but also due to the variety of arguments and, especially, the discursive depths generated by the integration of the ideas being summoned. Similarly, the existence of slavery could not be considered without the law, either in its relation with natural laws, civil laws, or even the divine laws and theological precepts.

In this study, the issue of the legitimacy of slavery is integrated into the explanatory dimension of the modern natural law theories, whose doctrines provided the subject not only with the strength of the "righteous" but also with moral and humanitarian guidelines. To that end, we focus on some thinkers of the Iberian school of natural law and on a nucleus of *jus naturale* authors from the seventeenth and eighteenth centuries, which considered these issues on their socio-political theories.

2

Roman law, which influenced the subsequent western juridical production, is a good example of how, framed in the *jus gentium* and the *jus civile*, the legality of slavery, the features of manumission, and the legal condition of the slaves were established under the influence of philosophical theory, *just naturale* principles and Christian precepts (cf. Souza, 1910, 35-62; Justo, 2013).

Even though they began by conceding to the owner all the prerogatives, to the point of being permitted to destroy his propriety, the roman jurisconsults gradually restricted such practice. They acknowledged that the slave was not, in reality, an object but a human, even a person, although he never ceased to be an objectified human (Klein, 2002, 4-5). By valuing nature and invoking human dignity, both stoics and Christians influenced the legislative practice towards limiting the excesses over the slaves without nonetheless changing their legal condition. By accepting the rules of roman society, the Christian church did not formally oppose slavery and so legitimized it. It combined religious

precepts with traditions, philosophical principles, and juridical norms in an articulation of the religious and secular spheres. In the realm of mental concepts, the interpretations of the fathers and doctors of the church were added to the apostles' word, particularly St. Paul, and the influence of the epoch's philosophical thinking, namely the stoics. For instance, St. Thomas Aquinas, who denies the existence of slavery in the primal natural state, admits it as an institution of secondary natural law. From a human concept rooted in *jus gentium*, he attempted to conciliate the Aristotelian theory of slavery, as natural condition, with the argument of the punishment of sin, conveyed by the holy fathers, especially St. Augustine, and with the titles of propriety inscribed in roman civil law (cf. Pimentel, 2019, 405-407). He united nature and divinity in the same construction to which man has access through his rationality and whose justice civil law should reflect. From the accord of different dispositions, sprout the compilation of varied and complex considerations, which became consistent support for the allegation of future authors. When trying to moralize the justification of slavery, these authors frequently invoked the authority of this eminent figure, whose theories marked Western European civilization.

Legalized by the Roman jurisconsults and justified by the church theoreticians, the legitimation of slavery was further consolidated, during the thirteenth century, with its inclusion in the *Decretais* of Gregory IX. Promulgated by the pontiff with the bull *Rex Pacificus* of 5 September 1234, which integrated the *Corpus Iuris Canonici*, the first large compilation of canonical laws². Like the *Corpus Iuris Civilis Romanii*, the *Corpus Iuris Canonici* presents the four juridical titles that conferred legality to slavery: the capture of the defeated in armed conflict, punishment for crimes, sale of oneself or his children, and slavery as a hereditary condition (Gregory IX, 1584, *Liber Extra, liber I, titulus XVIII; Liber Extra, liber II, titulus IX; Liber Extra, liber III, titulus XXXIX*).

In Western Europe, slavery was present in the most diverse legal regulations, from customary norms to roman laws, from papal to regal determinations (cf. Souza, 1910, 63-75; Verlinden, 1949, 17; Amaral, 1796, vol. VI, 258 e vol. VII, 213-215; Barros, 1947, 75, 113-116; Carvalho, 1877, 16). The code named *Las Siete Partidas* (Seven-Part Code), of Alfonso X, king of Castile and León (1252-1284), with noteworthy impact in the Iberian Peninsula, included within slavery's scope the children of slave women and individuals that, for manifold reasons ranging from extreme necessity to debts, gave themselves as slaves or sold their own children (*Las Siete Partidas*, 1555, Partida II, título 29; Partida IV, título

2. After being revised, this legislative compilation was approved by Gregory XIII in 1580, having been in effect until 1917.

21). Similarly, in Portugal, in the middle of the fifteenth century, the *Ordenações Afonsinas* (Alphon sine Ordinances), which were the first Portuguese compendium of laws and whose dispositions were based on roman and canonical law and used as framework for future compilations, regulated the existence of slavery, the conditions of subjection and the rules applying to the commercialization of slaves.

During the fifteenth and sixteenth centuries, the Iberian world experienced the discoveries, the economic and political dominion of overseas territories, the apostolic mission, the dauntless feats for the glory of God and king. Simultaneously, the Atlantic slave trade began to develop to bypass the trade outposts of the Muslim and the Italian republics. It moved slave trade's main route from the Mediterranean to the Atlantic, enabling the establishment of regular commerce of slaves between the African, European, and, later, American continents. Africa was soon to become Modern Age's great reservoir of slave workforce.

Considering slavery as a long duration process, we can sustain that it was in the context of a centuries-old process rooted in the ethical-juridical theories that modern expansionism found its most solid pillars to enslave and trade the non-Christian people encountered along with the maritime voyages. Within this movement overseas, the acts of conquest, Christianise, enslave and colonize were intrinsically related. The Roman Church granted unconditional support to these practices, recognizing the armed conflicts as "just wars" and validating the possession of territories and peoples³. Among the many pontifical authorities that did this was Pope Nicholas V. In the papal brief *Dum Diversus* of 18 June 1452, he granted the king of Portugal the right to conquer, attack, and subjugate all the territories in the hands of the Saracens, pagans, and other "enemies in the name of Christ," as well as, the possibility to enslave all the inhabitants of these kingdoms. That same pope, on 8 January 1455, through the Romanus Pontifex bull, insisted once again in this political and ideological orientation, authorizing the incursions into the lands of the unfaithful, recognizing their absolute subjection to Portugal and legitimizing the peoples' slavery and trade, even those who had not received any Muslim religion's influence (cf. Godinho, 1968, 153-158).

3. In the Medieval theocratic conceptions, the church, led by the pope, exerted temporal and spiritual powers over all the people in the universe. It rested on the pope the right to authorize armed conflict, in case of disobedience, and to delegate or confirm such authority to other entities (cf. Thomaz, 1991, 147-148). He judged on the war's justifying case and determined the condition in which the peoples could be punished with suppression of the territories that, justly or unjustly, they possessed. The Portuguese kings would not begin to fight the Moors without papal authorization to, in this way, ensure their claim to the conquered lands.

The legitimacy of war, whose purpose was the reconquest of former church territories or the defense of the spread of the gospel, reflected the spirit of crusade so characteristic of medieval Christian thought. In canon law, it constituted the foundation for the appropriation of territories and the enslavement of the unfaithful⁴. The war took the form of a trial, a judgment from God on Christ's enemies. It legitimized the domination over the conquered, and the commuting of the death penalty, to which they should be subjected by *jus gentium*, into slavery was due to humanitarian principles. It was the justification for the appropriation of "bestial people" that did not know the principles of faith, nor the moral precepts and the benefits of civilization. Furthermore, by declaring the war "just," all Christians that died in armed conflict were absolved of guilt and punishment. The apology of force was justified by the ends to be reached and was perfectly framed within the ideals of the Church and the mentality of the epoch. The war accomplishments against a dangerous and non-Christian adversary enabled attaining honor and heroism while providing wealth in the earthly life and good fortune in the afterlife.

Nonetheless, since the thirteenth century, a debate within Christian thought was underway concerning the applicability of the notion of crusade, following an explicative hypothesis derived from scholastic naturalism. Saint Thomas Aquinas was crucial in this movement. He had an extraordinary influence in the later theories' formulation by defending that the people did not lose, by reason of being unfaithful, the domain nor the political power over their territories. All men enjoyed the natural rights that were intrinsic and recognized by reason itself, regardless of them being believers or pagans, heretical or unfaithful, rude or learned, sinners or atheists (cf. Antunes, 1992, 47-52; Pimentel, 2007, 299-318).

The realities the expansionist movement brought to the Europeans' awareness conjoined with the notorious tendency of renaissance thinking to the development of assumptions regarding the naturalistic order, the valorization of human nature, human dignity, and, inherently, a change in values. As such, the revelation of "new" socio-anthropological worlds functioned as a critical trigger. It made evident the maladjustment of the European juridical notions in

4. Besides the already mentioned diplomas of Nicholas V, other papal diplomas can be inscribed in the same theoretical and juridical presuppositions: the bulls *Etsi Cuncti* of 1456, from Pope Callixtus III, *Aeterni regis* of 1481, from Pope Sixtus IV, and *Inter Coetera* of 1493, from Pope Alexander VI. Pope Alexander VI that, after Colombo's discoveries, made the division of the "discovered and to be discovered territories" between Portugal and Castile, whose Portuguese challenge led to the signature of the Treaty of Tordesillas (1494). Then, the church's hegemony was already much questioned.

relation to the overseas realities while facilitating the development of the *jus naturale* currents underway in the realm of scholastic philosophy. If it was possible to declare “Just War” against some peoples under the theory of the crusade, assuming these had rebelled against Christ’s law and papal authority, the same was not feasible regarding the peoples without prior knowledge of the Gospel, or which were not followers of the heralds of the divine word⁵. The fragility of the theoretical foundations inability to contemplate such diverse situations became evident. In these cases, where radicated the legitimacy of European domination and the peoples’ enslavement?

The legal and political questions raised by the discovery of the New World, centered in the problematic of the legitimacy or injustice of the Spanish colonization, were asserting themselves. It is in this context that is published the bull *Sublimis Deus* of 29 June 1537, in which Pope Paul III, recognizing the righteousness of the arguments, takes the initiative of forbidding the enslavement of individuals living outside of the realm of Christian religion. Similarly, we had the publication of the “New Laws” (1542-1543) of Charles V, which try to delineate the right of dominion over men and territories⁶. In an environment of strong ideological contention, the 1500s controversy opposing Bartolomé de las Casas, defender of the American Indians humanity, to Juan de Quevedo and Juan Ginés de Sepúlveda, which saw them as brute animals, became famous. Its highlight was the public debates taking place at Valladolid in 1550 and 1551 (Pérez Fernández, 1996, 37-38). It was the start of a long confrontation process between traditional culture and the new anthropological and ethical-juridical conceptions. The issue was, primordially, the dominion over the peoples outside of the *orbis christianus*, as was the case of the American indigenous. Concerning the Africans, on the other hand, they could continue to be used as slaves, and their condition derived from the general supposition that they were prisoners of a “Just War” arriving already as enslaved at the American continent. The denunciation of the injustices of their captivity only begun in the second half of the sixteenth century.

Faced with the recent evidence and in light of the new conceptual perspectives, a revision of the titles

legitimizing war, the expropriation of territories, and the enslavement of peoples were inevitable. It was essential to adapt the system to new convincing theoretical formulations applicable to all peoples, regardless of the religious, social, and political circumstances in which they lived. In this process, the jurists and theologians of the Iberian school of natural law were involved, echoing ideas expressed by Saint Thomas Aquinas, rethinking the reasoning for conquest, dominion, and evangelization, as well as the rights of local peoples and the principles for the coexistence of nations. Merging theology and rationality, they challenged the ideal of the crusades and inflected towards what was to become the modern juridical thought. The foundations of “Just War” were revised, and the theory on peaceful evangelization, through preaching, as inscribed in the law of nations as a prerogative of the peoples, replaced the ideology of the crusade (Dias, 1982, 204). Such change did not imply any modification to religious practices nor to the legitimacy of the colonial presence. It did signify, however, a change of attitude and, mostly, an ideological adjustment⁷. In this process Francisco de Vitoria (1483-1546), Domingos de Soto (1494- 1560), Martín de Azpilcueta Navarro (1492-1586), Luis de Molina (1535-1600), Francisco Suárez (1548-1617), among other theologians and jurists from the School of Salamanca became famous. A few Portuguese followed their steps, as were the cases of Fernão Rebelo (1547-1608), Baptista Fragoso (1559-1639) e Estêvão Fagundes (1577-1645). They questioned the righteousness of the many captivities regarding the law of nations, civil law, and ecclesiastic law, contributing to a reconsideration of the notions of dominion, evangelization, ethics of colonialization, legitimate and adequate treatment, and the classification of the peoples (cf. Maurício, 1977, 165-195).

By rejecting all the titles that had been granted until that point by the right of war and conquest, based on the papal authority and the imperial powers, these thinkers of the second scholasticism denied the supremacy of ecclesiastic law over natural law, as was intended by the legitimacy of warrior action, as well as the titles of dominion founded on the mental incapability, the unfaithfulness, the barbarianism, the anthropophagy or other “sins”

5. The recognition of the unity of the human race and the lack of spread of the Gospel to all men profoundly shook traditional convictions that justified and legitimized the use of force and the enslavement of the unfaithful resisting preaching. Regarding some peoples, such justifications could not be valid, nor could they be included in the definition of unfaithful (cf. Dias, 1982, 71 e 149-161).

6. In 1512, the assembly of Burgos convened by Ferdinand, the Catholic, had determined the first measures in favor of the Indians, recognizing them as free men (cf. Barbier, 1966, XII-XV). The “Laws of Burgos”, however, were not applied until 1537, when Pope Paul III decided to intervene with the *Sublimis Deus* bull.

7. The cases of licit war begun to be determined by the governmental authorities through an evaluation of the political and economic conditions, which left room for plenty of doubts and interpretations. In parallel, in Renaissance Europe the pacifist thesis of the Christian humanist current spread. To it were aligned figures like Erasmus of Rotterdam and the peninsular Juan Luis Vives. Pacifism presented itself as a convenient political solution to Christianity’s internal question, yet it was completely maladjusted to situations where the interests and values of European civilization were called into question by the power of unfaithful peoples.

contrary to nature⁸. They took root on the presupposition that all men are original free, existing no slaves by nature, and accepted the natural law precepts that gave each people legitimate possession of their territories and population. For Francisco Vitoria, following Saint Thomas Aquinas' ideas, the Indians were the legitimate possessors of the territories in which they lived, exerting their sovereignty prior to the Spanish arrival. Such right of civil dominion, granted by natural law to everyone, was not annulled by the absence of faith or by unfaithfulness. There was no righteous foundation for the occupation of their lands either for other sovereignties or for the imposition of faith, which should come from free choice (Vitoria, 1966, 13-33). The thinking of Luís de Molina expressed the same theory that neither pope, nor emperor or any other prince, besides his own, had any jurisdiction over the peoples that were beyond the church's area of influence, and the same can be said of Azpilcueta Navarro or Martinho de Ledesma (cf. Dias, 1982, 192-199 e 202).

They also admitted as natural the principles of sociability and fraternity that were part of the law of nations. These, when correctly observed, could legitimize the use of arms and the appropriation of territories and peoples. From the principle of sociability derived, as Nature's precepts, the right to communication and commerce between all nations, as well as the right to religious preaching. The principle of fraternity placed the less developed nations under the tutelage of the more developed. Luís de Molina argued that war and domination would only be justifiable if any of these prerogatives granted to all humanity by the law of nations had been denied⁹. In the regions beyond Christianity, he recognized as justified repressive wars or the protection of victims of certain cruel rituals if the peoples consented to their presence. Outside of these situations, Molina did not approve the licitness of war – repressive or conquest – grounded on lack of civilization, mental minority, idolatry, or customs believed contrary to Nature (cf. Dias, 1982, 196-203).

The jurists and theologians, however, conceded that in certain circumstances, legitimate enslavement was possible. Besides recognizing the enslavement of the prisoners of a "just war," they also accepted such a condition to the condemned from a felony

worthy of such penalty, if it was a hereditary condition and, in times of great scarcity, if the individual sold himself or one of his children. The foundations of slavery were now radicated either in *jus gentium* or in circumstances regulated by positive law. As it were, the dominion the owner held over the slave had to be limited, not being permitted to kill or mutilate, nor to demand services not aligned with his strength (Maurício, 1977, 166 e 171). Molina presented this demarcation unequivocally when stating that slavery was against nature, "if we attend only to the primitive constitution of things," and that, "with the advent of other circumstances, the law of nations introduced it, however, licit and justly, against what nature postulated" (*apud* Dias, 1982, 202; cf. Maurício, 1977, 166, 171; Coxito, 1999, 119-112; Höffner, 1977, 344-347).

To these figures, it was also equitable and pious to relieve someone from death for a certain price, as long as the motives were in accordance with the legal precepts. Nonetheless, Molina, even if stating that "no one was obliged to expose himself graciously to dangers, applying his work and industriousness," warns to the consequences of war, especially the repressive, and to the disorder, it sprouts: "is it not licit to the military authority to usurp the adversary's propriety in a larger extent than the reparation of military expenses and of injury and damages (if the fight produced them), and the just reward for their efforts." He ends his speech cautioning to the hypothesis of it being more convenient "to these innocents and their State that the attackers assume total dominion of these regions, which will happen many times" (*apud* Dias, 1982, 199-200, nt 214). As can be inferred, in practice, it was not easy to manage the interests at hand. The arguments could be applied to the most varied circumstances and legitimize different attitudes of domination.

In the case of the Africans, Luís de Molina recognized it was "an act of charity to buy the freedom of the black, to make them Christians," but he believed it preferable to send missionaries instead of merchants to those regions. While this was not the case, slavery would be an accepted process, yet limited to individuals legitimately enslaved that, through the "price of perpetual slavery," would receive "faith's good" and would be removed from a "barbarous and ungodly life, living and dying among Christians" (*apud* Dias, 1982, 200-201). In his thinking, the main doubt was not regarding the institution but the lack of interest of the merchants for the reasons that had led the blacks to lose their freedom. The knowledge of various abuses did not prevent them from trading, with a clear conscience, individuals abusively enslaved.

In the Iberian jurists and theologians' theories, an effort was notorious towards coordinating maxims from natural law with norms of positive law, i.e.,

8. In the theological-juridical perspective, unfaithfulness was only a sin if there was knowledge and posterior renouncement of the gospel, which was not applicable to the American Indians (cf. Dias, 1982, 173).

9. Nonetheless, Molina did not admit that the right to navigate, to trade, to resist, to extract wealth, to settle cities and to other forms of sociability and communication deduced from the law of nations, were sufficient motive for a "just war". A people could "licitly forbid" such foreign intervention, except in cases of "serious and extreme necessity", without this being sufficient injury to justify war (Dias, 1982, 202). In practice, the exceptions enabled a variety of interpretations.

between the law of nations and the laws of the States, within the limits of their application. They challenged the theocratic power. Promoted civil power, established barriers to colonial practices, and shook the foundations of slavery. However, their criticism, which warned of the failings committed against justice, morality, and humanity, usually implied a challenge that did not mean a condemnation of the practice of slavery. Instead, it aimed at its restriction to certain circumstances that made it a righteous and legitimate institution, aligned with the precepts of the Iberian school of natural law. Their arguments regarding “just war” ended up drafting the conceptual basis that sustained the formation of colonial areas under European domination and, consequently, the onset of great contingents of slave workforce.

The many formulations of thought of the Iberian jurist theologians had great repercussion. In Portugal, Fernando Oliveira (1507-1581) and António Vieira (1608-1697) are only two figures that followed the same cultural and colonial point of view. Fernando Oliveira, one of the most distinguished Portuguese of the sixteenth century, expressed, following such principles, a strong rebuke of the practices of enslavement and the slave trade, becoming the Portuguese pioneer voice in the criticism of slave traders. He recriminated the practice of slavery and rejected slave trade, justified by supposedly just wars and the pretext of redeeming souls. Still, he did not assume a condemnation of slavery as an institution (cf. Pimentel, 2015, 269-290). The Jesuit preacher António Vieira was part of the same matrix of thought. Such orientation is evident when he defends the liberty and sovereignty of the Brazilian Indians, the human condition of all peoples, and when he comments on the existence of slavery and slave trade. He often appeals to the Holy Scripture to sustain his legal formulations; still, the analogies he makes between concrete realities, the examples extracted from the holy texts, and the natural law principles are a constant to which he connects life lessons. To Vieira, the enslavement of the black and the Indian deserve different comments. Yet, in either case, the subjection should be regulated by juridical principles and mitigated by humanizing the treatment. Concerning the Indians, he evokes the principle of freedom and accepts the restrictions in the law interdicting their enslavement as legitimate. As for the blacks, he follows the general principles of the legitimacy of their captivity and, since the Africans arrived at Brazil already as merchandize, he places the focus not so much on their captivity but instead on the violent conditions they were subjected to. He protested against the illegalities, the excesses, and the dehumanization but, besides all these considerations, it was out of the question to renounce to the African slave labor, and he justified the situation they faced with the will of God (cf. Pimentel, 2011, 457-474).

3

In Europe, the Iberian jurists and theologians’ conceptions conjoined and contributed to the critical rethinking of the world, societies, institutions, and powers. This had been accumulating, and the great political-religious conflict and social turmoil were its expression. The *jus naturale* conceptions were projected in reform and social change movements that characterized the following centuries. By promoting the autonomy of civil power, radicated in the members of society and emanating, through reason, from a natural law valid for all times and places, regardless of each peoples’ particular circumstances, these sixteenth-century thinkers prepared the ground for a restructure of the concepts of society and State and cleared the path towards the constitutions of the future international law. Silva Dias denotes such relevance when stating that modern natural law, “long before being deepened and developed by seventeenth-century protestant jurists, had already had a fundamental historical moment of research and application in the Hispanic theoreticians” (Dias, 1982, 172). Yet, their doctrines did not aim at suppressing slavery, nor were they able to halt the growth of the slave trade. In the eighteenth century, with the development of the great colonial empires and the expansion of the enormous contingents of slave workforce that sustained it, the highest numbers of human trafficking were registered. Nonetheless, this century also saw the birth of the abolitionist movements that refuted the legitimacy of slavery¹⁰.

This challenge had begun in England inside the Quakers religious sect. However, it rapidly went beyond the strictly religious arena to take on a humanitarian and political facet. Slavery was far from being only a moral problem; it was a social issue with economic and political implications, both internal and external to the States, which could hardly be avoided by the cultural discourses. The existence of slavery had to be reconsidered in a world where the theocentric view had given place to the anthropocentric ideals, a new law had been established without any relation to the divine law, and a new morality independent from any theology had appeared. These promoted recognition of the juridical equality of men and nations, where the respect for the innate prerogatives of the individual and human dignity were invoked, and the principle of freedom granted by nature became a fundamental right. Other juridical and philosophical constructions in opposition with the reality of slavery existed now, which, following the theories of the Neo-Scholastics of the school of

10. It should be mentioned that, at this time, the institution of slavery included not only predominantly Africans and their descendants, but also other peoples, inclusively Europeans in special circumstances, as will be mention in this work.

Salamanca, integrated the rationalist thought of the seventeenth and eighteenth centuries and disseminated an image of individuals and their rights.

Were the slaves understood within the epochs' intellectual currents and social problems? To which point could they be free? Was slavery in conformity with human nature? Was it a legitimate or an unjust condition? In societies of masters and slaves, what is the applicability scope for the concepts of freedom, equality, propriety, security, common good, happiness, or civilizational progress? How to understand the thesis on liberty and the universality of the rights of man simultaneously with the practice of slavery? These were complex and too controversial questions regarding the enunciation of its conceptions and at the level of the social, economic, and political practices. The harmonization effort emanated the conflicts, the game of permanencies and transformations, and the ambiguities and contradictions between the theoretical and practical discourses.

At this time, the topic of slavery and slave trade was connected to the wider issue of colonization, in which the slave continued to possess a high economic value. Neither the soil nor the colonial industries produced without his efforts. He was a capitalizable product through transactions, taxes, and levies to which he was subjected to by testamentary or donation acts, by the rental of his services, or by the modality of *escravo de ganho* (slaves of gain). The slave work was deeply related to the exploitation of colonial wealth, and these were so relevant to the State's prosperity that it was feared a sudden cease of slave workforce usage would lead to the collapse of the whole economic structure sustaining the colonial powers. Such fears led to a split in attitudes, to doubts and resistances, even among abolitionist authors when putting into practice the abolitionist proposals.

Conversely, the challenges of slavery were integrated into the turmoil of the theorizations about the formation of civil society, political state, and sovereign power¹¹. Natural law, the law of nations, individual prerogatives, and social pacts all entered the discourses and constituted the basis of political-philosophical treaties. The *jus naturale* doctrines, regardless of being integrated into the absolutist or the liberal ideas, directed these social creations and, as such, in a more or less developed fashion, including the existing forms of dependency. Once again, natural law, being the recurring support to justify the socio-political

institutions, could not avoid influencing the ideological nucleus generated around slavery. To make the arguments righteous and morally grounded the human rights were recalculated.

Liberty became the focal point of the great juridical-philosophical constructions. Given that it was related to the debates over the prerogatives arising to man in nature and civil society, it is not surprising that the arguments, either of authors criticizing slavery or those justifying its existence, were centered on this fundamental concept. Accompanying it was the right of propriety as entitlement to possession, use, and enjoyment of the goods, starting by the body itself and the exercise of freedom. On the other hand, the equality that united all men in primitive and hypothetical natural conditions sprung social inequality due to the diversity among men and in accordance with the exercise of freedom itself, as the philosopher Jean-Jacques Rousseau proclaimed¹². A reality that, associated with the notion of the superiority of the Europeans, the law of the strongest, most capable, or most gifted, not to mention religious determinisms or the vagaries of nature, ended up implying strong distinctions and to become another argument towards slavery¹³.

The idea of beings born solely to be slaves had already lost all credibility, yet slavery continued to be defended, with its origin in the social situation, as a volitional or contractual act, springing from actual natural rights, which legitimized it and created the basis for its legality. Freedom held as humanity's natural and universal right was also at the origin of

12. Rousseau, applying an effort of abstraction and merely from agreeing with the *jus naturale* thinkers, accepted that men enjoyed equality in the natural state. He departs from this theory in the sense that it was nature itself granting men with such diverse characteristics. In his perspective, human differences were of two kinds: physical or natural inequality, established by nature when giving different characteristics to individuals, and moral or political inequality, related with different privileges individuals might enjoy within societies. However, if for the philosopher the differences established inequalities, the state of liberty gave equality to all men at birth (Rousseau, 1971a, 60 e 67).

13. Voltaire was one of the enlightenment philosophers that clearly defended the inequality or inferiority of many peoples in relation with the Europeans and even among the later. He claimed that "only the blind" could not see that whites, blacks, albinos, Hottentots, Lapps, Chinese, and Americans were entirely different races, and that the blacks, whichever the climate, always produced "animals of their kind" and the mulattos were nothing more than a "bastard race" (Voltaire, 1829, 19-20). In the case of European societies, Voltaire alleged that a social division of men in two groups was convenient: the rich that ruled and the poor that served. He concludes that evil does not reside in inequality, but in dependency (Voltaire, 1878, t. XVIII, 475).

11. According to the entry "État de Nature" (Natural State) of the Encyclopédie (Encyclopaedia), signed by M. le Chevalier de Jaucourt, "civil society" meant the political body formed by the voluntary union of a group of people that agree a form of government among themselves, aiming at surpassing the inconveniences of the natural state and attain stability and common good (Encyclopédie, 1756, vol. VI, 18).

the societies and the political power that guided it, aiming, in accordance with circumstances, to legislate over the common good. Then, considering this presupposition, the institution's permanence was justified.

In Portugal, the catholic bishop José Joaquim da Cunha Azeredo Coutinho (1742-1821), one of the strongest defenders of African slavery, published in 1798 the work *Analyse sobre a justiça do commercio do resgate dos escravos da costa de Africa* (Analysis about the justice of the trade of the redeem of slaves from the African coast). His goal was to demonstrate, in opposition to the opinion of some "philosophers in vogue," that slavery and slave trade were neither contrary to natural law nor social conventions¹⁴. Starting from the principle that man is sociable by nature, he immediately excluded the primary or absolute natural law since all men were born free and independent. Their existence would only be observed in the secondary natural law, relative to existence in society, which imposed on man to choose between two evils, the lesser or least damaging to his living.

Azeredo questions why was slavery not recognized as righteous or even mandatory if the good of society so demands it? Who could argue it unjust from being contrary to natural law? So much so since its institutionalization was verified since time immemorial, by the particular law of societies, in accordance with the secondary natural law (Coutinho, 1808, 38-39). In his argumentation, slavery appears as an imperative of existence, "supreme law of nations," being the "justice of human laws" in relation to the circumstances of each social body (Coutinho, 1808, XII). The author challenges the absolute facet of natural law, stating the relativity of justice, and justifies the existence of slavery from natural law, and deducts its principles from the requirements of existence (Coutinho, 1808, 13-14).

The argumentation presented by Azeredo Coutinho diverged from the principles defended by the "New Philosophers." Condorcet, for instance, which was among the most stringent anti-slavery Frenchmen, said all men were born free, and liberty was an inalienable and unending propriety. To reduce a man to slavery meant removing all that nature had given him to maintain life and fulfill his needs (Condorcet,

2014, 23). He invoked its perverse feature and the evident contradiction with the spirit of the times, which aimed at being the great century of reason and humanity, but that, while, on the one hand, proclaimed liberty, on the other imported African blacks to whom all possibility of making use of it was removed (Condorcet, 1968. t I, 344-348).

The philosopher blamed societies for allowing such a retrograde practice, which distorted its original finality and advised the French nation voters to proceed to the liberation of all slaves. Such practices could not exist within a nation that aimed at being free, equal, and sovereign. By entering society, individuals acquired the right to be protected by the public force against violence. It was a social duty to promote the happiness of all members and, consequently, the lawmaker should conform to the laws of natural morality. An unjust law, contrary to the rights of men, nationals, or foreigners, was a crime committed by the legislator and all who consented to it. It was equally criminal to tolerate it when it could be destroyed. To allow such abuses was the same as to justify all kinds of tyranny and outrages towards humanity's rights (Condorcet, 2014, 31).

To Condorcet, no law, purchase, punishment, or contract permitted the enslavement of a free man. In no circumstance could slavery be considered legitimate. Even if it was the result of voluntary action, it contradicted natural law. No one had the right to sell or enslave himself. He could, actually, renounce his rights and become a slave, but he should himself consider his decision invalid, a victim of madness, a passion or a need of the moment, and by consequence by no contract could he renounce his rights and, maintaining them, he could not be a slave. Faced with the justification of the enslavement of the African peoples as an act of "humanity," he questioned if the simple fact of saving their lives gave the European the right to enslave or sell them. In such cases, the right over his propriety and even over his work, increased by the necessary portion for his subsistence, could be acquired, but he could never be righteously reduced to slavery (Condorcet, 2014, 24-30).

However, in some situations, the philosopher accepted that an individual might not fully enjoy his rights. For instance, being proven that he did not have the capacity to use them correctly without becoming a danger to other members of society. In this group were included children and fools, which could be righteously deprived of certain natural rights, just like the free slaves that, corrupted by the vices of their condition, were incapable of properly exercising the functions of a free man all of a sudden. Such individuals could not be abandoned by society, falling into the legislator the responsibility of conciliating their needs with their rights. In these circumstances, to deny them the full exercise of their rights was not a violation of the prerogatives conceded by Nature nor a continued protection of

14. "Those of the new philosophical sect that call themselves strict followers of natural law; and that the law that is against natural law and humanity is unjust; and that consequently should not be obeyed, do not, nonetheless, provide us with a clear and distinct definition of this Humanity of theirs, nor of this natural law of theirs, nor do they tell us how it should be applied in the state of society, nor whom should be the person or persons that in the state of society are or are not authorized to say if the law is or is not in accordance with natural law and Humanity. Their natural law is arbitrary and their Humanity is it merely in name" (Coutinho, 1808, VIII).

their violators. It is the use of required prudence so that they could attain happiness (Condorcet, 2014, 32-34)¹⁵.

The allegations of legitimacy frequently appear reinforced by philanthropic and civilizational reasons. The authors defending slavery usually tried to demonstrate that slavery's suppression was an anti-humanitarian procedure of devastating consequences, both for the slave-owners and the slaves. There were even those attempting to show that slavery enabled the slaves to have a higher quality of life than the European serfs. For the latter, freedom and work force were clearly insufficient to guarantee their subsistence; consequently, they defended that slavery should be extended to the European metropolises¹⁶. Azeredo Coutinho distinguished these two situations, opposing the "slaves of force" to the "slaves of hunger" (Coutinho, 1808, 27-29)¹⁷. Concerning the Africans, the slave trade was considered

the best means by which the Europeans could remove them from the "barbarous customs" of societies in which they lived distant from all civilization. Trade and slavery appeared, then, to European eyes, once filtered by the slavery defenders point of view, as the best way to remove them from a cruel life and to guide them towards the privileges of Christianity and the benefits of civilization, something to which they would otherwise be deprived (Malouet, 1788, 33-42; Coutinho, 1808, 27-29).

The juridical foundation of these arguments continued to be developed on four titles already defined in Roman law, canonical law, and the theories constructed by the Iberian school of natural law: slavery by necessity, by sentence, by filiation, and by right of war.

A – The argument of necessity, as legitimizing source of slavery, is clearly expressed in the juridical rationalism and the philosophical theories of the seventeenth and eighteenth centuries. This form of subjection was admitted as a defensive resource when faced with an arduous circumstance derived from war, misery, or debt. On such occasions, slavery could either be the consequence of a voluntary choice, if the individual gave up his own freedom to another, or involuntary, if imposed, which happened when the parents sold their children in moments of great difficulties. Submission presented itself as an alternative to misery or death and could relate to a necessity of the dominated or a warranty of the dominator. It was, then, a safeguard for both. This was the interpretation of the German jurist Samuel Pufendorf (1632-1694), one of the main figures of modern juridical rationalism, seeing it as a resource to, through natural liberty, allow men mutual security (Pufendorf, 1740, t. III, 70-73).

This *jus naturale* thinker did not look for the origins of slavery, and the authority of the slave-owners, in the state of nature, but instead in society. Nature did not grant any authority to the slave-owners nor to the subjection of the slaves. These, just like the serfs, were elements of a family unit that, for whatever reason, found themselves in a situation of strong dependency towards the head of the family. According to Pufendorf, once the human race began to multiply, humans became continuously more disconnected from the simplicity of the first centuries, leading to a search, by all means, of additional comfort and a constant increase in wealth. In this way, the wealthier began to dominate the poor, with the only aim of subjecting them to work. The situation became convenient to those in need who searched for refuge with the more affluent families,

15. Diderot and Rousseau also took frontal positions against slavery. Diderot not only protested against slavery, but also against the type of colonization that was implicit to it. To conquer or plunder with violence was, to him, the same thing and no one had the right to use the law of the strongest to attack the independence of another. It was from Nature that sprung man's right to defend himself, however it did not grant anyone the right to attack (Diderot, 1973, t. XV, 496, 500-503 e 507). For Rousseau, slavery, which was nothing more than a continuous struggle, had no reason to exist. He stressed that slavery and law were contradictory terms that were mutually exclusive. Being a contractualist he humorously questions whether it would be possible to establish such an unwise agreement that placed the individual in total decency of another: "Je fais avec toi une convention toute à ta charge et toute à mon profit, que j'observerai tant qu'il me plaira, et que tu observeras tant qu'il me plaira" (I'll make a covenant with you all at your expense and all at my profit, which I'll comply as much as it pleases me and you'll comply as much as it pleases me) (Rousseau, 1971b, 64).

16. Slavery was a reality whose maintenance in the colonies was useful, but was becoming misaligned with the metropolises' economic and social lives. As such, slave trade began to decline in some European countries, while in others it was oriented towards the colonial world. In France, the first regulatory determinations concerning the maintenance of slaves appeared in the late seventeenth century, aiming at ceasing the great influx into the French metropolis. In the middle of the eighteenth century, England legislated in favour of returning all the slaves that escaped to the metropolis to their slave-owners. In 1772, in the famous trial of the Somerset slave, Granville Sharp obtained, supported by the study of the English constitutional texts, a verdict granting freedom to any slave disembarking in England. Some years earlier, in Portugal, the royal determination of 19 September 1761, moved the slave trade from the continent to Brazil by proclaiming as free all blacks and mulattos that disembarked in the Portuguese metropolis arriving from the ports of America. Africa and Asia (cf. Pimentel, 1995, 316-320).

17. For Azeredo Coutinho the argument of humanity reverted also to the European. From his perspective, the

use of the African as slave constituted a benefit and the anti-slavery attitude was nothing more than a lack of humanity towards the civilized whites, whose condition, instead of improving, was becoming equal to that of the slaves (Coutinho, 1808, 26, 29 nt 1, 37-38).

conditioned that these would provide them with the goods required for their lives in exchange for their labor. Slavery was then ratiocated in voluntary consent between two persons who entered into a contract and not in war, as many authors argued (Pufendorf, 1740, t. III, 70-73).

Similarly, to the German philosopher Christian Wolff (1679-1754), an influent author in the juridical landscape, it was not war that determined the appearance of slaves; it was merely required a situation of absolute necessity. Its existence was exclusively dependent on the will of men or on an accidental event that would make them establish an agreement in which the duties and rights of both parties were established (Wolff, 1772, t. V, 265-267). In his work *Institutiones juris naturae et gentium* (Institutions of the law of nature and of nations), Wolff exposes a theory where subjection is presented in two ways: perfect, if lifelong and the type of work non-specified, or imperfect, if temporary and aiming at the completion of a specific task (Wolff, 1772, t. V, 263-265). The latter brought the slave closer to the serf.

Wolff accepted liberty and the equality of all men, yet only in the state of nature, putting aside any situation in which they might be and all differences that might have existed between them at birth. This is why he speaks of the equality of men “in a moral sense” (Wolff, 1772, t. I, 141-147). The inequalities were nothing more than human deeds, which had been considered the humanitarian duties a man had towards his fellow men (Wolff, 1772, t. I, 145). Meaning that the free and equal men of the original natural state became unequal and obliged to the fulfillment of certain rules when entering the stage that the terms “adventitious or accessory natural state,” determined “by the contractual obligations, and the rights acquired in virtue of the single natural law” (Wolff, 1772, t. I, 193-194). Finally, civil society would be essential for good regulation of both natural and human rights. By moderating the common good, which is its purpose, the sovereign power should regulate the types of dependency, since man, to execute its obligations, had at times to reach to the assistance of others. In this case, according to Wolff, nature granted the individual the power to make another execute certain tasks and acquire the full rights over his proprieties (Wolff, 1772, t. I, 183; t. II, 25-27; t. V, 37-39). Here lies one of the specificities of Wolff’s theory regarding the legitimacy of slavery¹⁸.

18. In Wolff’s theory, a person has two types of rights: the innate rights, to which he is born and which are derived from the obligation imposed by nature, and the acquired rights, which are established contractually between men. Equality, liberty, security, and protection, the right to punish, to all things without which man cannot fulfil his

The encyclopaedist Fortunato Bartolomeu De Felice (1723-1789), one of the most prolific natural law authors concerning slavery, in the article “Esclavage” (Slavery), which he signs in the *Code de l’Humanité* (Code of Humanity), exposes the true nature of this alienation by mentioning that its introduction into society came from a free choice, yet men are always forced to it due to a vital necessity (De Felice, 1778, 1)¹⁹. His entire argument is based on the concept of human freedom that was the necessary condition for the preservation of the human being as a person and not as a thing.

Depending on the state in which he is, man possesses two types of freedom. If he exists in the natural state, he possesses a natural freedom; if, on the other hand, he is freely integrated into a civil state, then his freedom is what the author designates as civil freedom. The first resides in not recognizing any sovereignty in the land and following only the natural laws, without any form of dependency regarding others. The second consists in not obeying any other authority besides that to which he is subjected to, nor other laws not emanated from such government, in accordance with the power received from society (De Felice, 1778, 5; De Felice, 1820, t. II, 302-303). Depending on his natural and civil liberty, man could not, even by contract, consent to his complete enslavement, i.e., subject himself to the absolute and arbitrary power of another individual.

The author is contrary to slavery as a state in accordance with human nature, considering it more as an institution with a justified place within society (De Felice, 1820, t. II, 411). However, he recognizes that, since it sprung by force and violence, only by these means could it be maintained. Neither the right of war, acquisition, nor birth, could be rational reasons to explain its existence: “in a word, no one in the world can make slavery legitimate” (De Felice, 1778, 7, 12). His thinking might appear contradictory if one does not take into account that De Felice reacts against the oppressive features of true slavery, imposed by force, not against the slavery springing from each person’s free choice. The latter, having the possibility of being useful in certain circumstances to a person, was believe perverted due to how it was practiced. He considers the punishments to which the slaves were submitted for the

natural obligations, and to make others do certain tasks, all these are part of the innate rights. There is, then, a group of rights that belong to all men indistinctly and another that belongs only to an individual or a group of individuals (Wolff, 1772, t. I, 157, 193-194).

19. Besides the article “Esclavage” (Slavery), De Felice presents his theory on slavery in *Leçons de droit de la nature et des gens* (Lessons in Natural and Politic Law) and the commentaries to the book *Principes du droit de la nature et des gens* (The Principles of Natural and Politic Law), of Jean-Jacques Burlamaqui.

smallest oversights revolting, turning an institution “allowed for a good outcome” to become abusive (De Felice, 1820, t. III, 458, 462). It was the excessive domination over the slaves that gave slavery this malefic feature. The contradiction disappears, and slavery acquires, in his perspective, a justified place, as long as established voluntarily and under a dominion of limited power. The custom of having slaves, comments De Felice in his lessons, appeared in good time, as soon as the multiplication of the human race begun and the comfort of passing to others the chores that demanded more effort was recognized (De Felice, 1776, t. I, 198).

Still, the encyclopaedist stresses the typical eighteenth-century humanitarianism and points out that the right of propriety to which the slaves were subjected was not the same applied to inanimate objects. In this later case, it was possible to have absolute domination and use it according to one’s momentary whims. Yet, the right of propriety the slave-owner had over the slave, he believed, merely gave the power to govern and prescribe laws while also placing duties on him. It is the State’s obligation to regulate, through civil law, and monitor the rights and duties of slave-owners and slaves, to ensure a certain limit to folly and personal rages, any time the slave-owners intended to dispense their own justice. Only in this way could slavery be maintained without this inhuman character exerted over the slaves, which led them frequently to desire death, to resist and disobey their owner. The cruel punishments, which could reach death, were proof of such cruelty (De Felice, 1778, 6; De Felice, 1820, t. II, 411).

B - Progeny was another reason invoked to legitimize slavery. Roman law recognized that among slaves, as a rule, there was no marriage, only *contubernium*, i.e., natural or de facto union. As such, and since nothing prevented free or occasional unions, it determined that *partus sequitur ventrem*, which made slavery a hereditary condition, in which the children always kept the mother’s status. The exception was children conceived from unions between free women and slaves, in which case the father’s condition was inherited. When there was a legal union, the children kept the father’s situation. This juridical scheme was maintained, and in the eighteenth century, Montesquieu still interpreted it as a precept dictated by reason itself (Montesquieu, 1849, 347).

In the juridical theories of Samuel Pufendorf, Jean-Jacques Burlamaqui (1694-1748), Jean Barbeyrac (1674-1744), and Christian Wolff, filiation also appears as one of the juridical titles legitimizing slavery. For Pufendorf, the children of slaves were a good as any other that, rightly, belonged to the mother’s owner. To those conceived and born from a slave mother, the same fate was attributed because everything that was required to raise them belonged

to the master. Those conceived in a state of freedom or born after the mother’s emancipation were considered free or slaves, according to the owner’s will or what was determined by each State’s law. The same happened with the children that the slave woman conceived from the masters. The owner’s will, believed Pufendorf, was decisive, little mattering that the laws of humanity favored their freedom. Following the precepts of Roman law, the jurist applied the maxim that if the tree fructified for the owner, so did the children of slaves belong to the mother’s owner.

Since the slave woman had no possessions, the owner had to provide what was required for the subsistence of her children until they reached working age and could compensate him for the expenses. In the first years of work, this retribution would not go much beyond the costs spent for the basic needs, so the slave was only able to attain freedom through the owner’s consent and after having compensated him for all that had been required in his breeding and the mother’s sustenance, while she was unable to work. In the case of children of war prisoners, the consent was linked with the debt related to subsistence and the fact that the owner, not being obliged to feed them, was only acting in this fashion under the presupposition they would remain slaves. A condition to which was supposed they tacitly consented, so much so since they would not be alive had the slave-owner decided to use the right war granted him of sentencing their mother to death. Pufendorf, however, recognized that slaves whose condition came from filiation should be treated with less harshness because they were in such circumstances by no fault of their own, but only due to a misfortune of birth (Pufendorf, 1740, t. III, 78-79).

Jean-Jacques Burlamaqui (1694-1748), a disciple for Pufendorf, equally accepted this source of slavery (Burlamaqui, 1820, t. V, 139-140). Similarly, his translator to French, Jean Barbeyrac (1674-1744), following a *pufendorfian* logic, established a correlation between the condition of the children of a citizen born subordinated to State laws and the children of slaves born subjected to the laws of slavery (Barbeyrac, 1740, nts 5-8, 78-79). Considering men free by nature did not prevent that, at birth, they could become slaves due to a human act. To this natural law author, it was perfectly righteous that, in a society in which parents could sell their children in case of need, slaves could subject their children to the same condition since they possessed nothing. Regarding the philosopher Christian de Wolff, he accepted the hereditary condition, stressing, however, that it should be temporary. It should be the case only until the owner could be compensated for the resources spent with the child and the mother while incapable of working (Wolff, 1772, t. V, 277).

Nonetheless, not all thinkers followed the same principles. Rousseau, for instance, strongly

condemned the enslavement of the children of slaves. Notwithstanding the mothers' condition of subjection, the children were born free, and only they had the right to dispose of their own freedom (Rousseau, 1971, 60-61). Diderot followed the same rule and challenged the fact that a man could be the propriety of a sovereign, a child propriety of the father, a woman propriety of the husband, a servant propriety of the lord, or a black slave propriety of a colonist. Only a free individual, master of his own body and spirit, could select his destiny (Diderot, 1973, 501). Condorcet added to this right of option that the care the owner had towards the children of slaves did not give him any power over them, since, by removing the parents' freedom, he had usurped their possibility of caring for their children (Condorcet, 2014, 27 e 29).

In Portugal, the philosophy professor José Veríssimo dos Santos, in the dissertation *A liberdade dos filhos dos escravos demonstrada pelas leis da natureza* (The freedom of the children of slaves proven by the laws of nature) of 1772, and forbidden by the Royal Board of Censorship, challenged the arguments used by Pufendorf and Barbeirac and defended the freedom of the children of slaves. Not denying the existence of slavery, the author admitted it only in cases that did not contradict the precepts of natural law. He considered it an "unfortunate situation," perfectly legitimate in certain cases but disagreed with the justification that it came from a state of nature and its legalization by common law. For Veríssimo dos Santos, the state of nature was a state of equality where all men enjoyed the same faculties, and no one could say that his soul was of a different nature or his body of a different build. No one could invoke the right to take possession of another's freedom or of subjecting him to his will. From this, he deduced that slavery was a circumstance in which man places himself by his own initiative (Santos, 1772, 3v-4).

According to the author, the main origin of slavery radicated in war, by which men called into question their duties of sociability, peace, and kindness towards their fellow man. The same happened with civil societies that did not mutually respect each other (Santos, 1772, 5-6v). From this status of mutual destruction, completely opposed to the purpose for which man was created, sprung the right to enslave related to the suffered offenses, as the heaviest penalty applied by the winners on the defeated. Veríssimo dos Santos deduced that those not in such circumstances should not be given such a stern punishment. Why should the children of slaves remain in such state of misery in which their parents lived? Had they committed any crime or did God provided them with different purposes? In civil societies, we could constantly see parents committing crimes without their children facing punishment for those very crimes.

His readings of the Roman jurists and *jus naturale* theorists did not convince him. Quite the opposite, he revealed himself very critical of the invoked arguments. He did not understand, for instance, why, to Pufendorf, the slave remained dependent on his owner's consent to be emancipated, even after his labor exceeded the costs incurred during his childhood and the owner had been compensated. If, in Barbeyrac's opinion, the parents could subject the children to slavery, how would these be capable in adulthood of searching for their means to emancipate? How could they do so in countries where the law determined the heredity of this condition? Besides, how could a comparison be made between subjection to the laws of a society, whose end was the citizens' happiness, with subjection to slavery that placed them in the most degrading and miserable condition? The laws of society, which aim at the wellbeing of men, are the same as those of nature, while the laws of slavery contradict their principles (Santos, 1772, 14v-17v). How could Pufendorf defend the enslavement of the children of slave women, invoking the master's benevolence that, instead of killing them by right of war, granted him life in exchange for slavery?

Answering this last question, Veríssimo dos Santos, making use of Burlamaqui's ideas, tried to demonstrate that sociability meant mutual obligation between men and, if a person was allowed to treat as enemy those that committed an offense, the truth was that such right did not enable the destruction of this principle. If only necessity authorized the use of force, this principle should constitute the rule and measure for what could be done. Essential for the principle of sociability was the distinction between rightful defense and vengeance. The former did not allow more than a momentary, and as needed, suspension of benevolence, preventing rightful defense from being opposed to sociability. The same did not happen with vengeance that, by destroying the principle of benevolence, placed "in its place a vicious passion of hatred," contrary to the common good and condemned by natural law. Besides, once surpassed the state of war and the captives having expressed regret, all right to kill ceased, and they should be treated within the norms advised by sociability (Santos, 1772, 12v-13v). Consequently, the justification for the child to follow the mother's condition, due to the slave-owner's benevolence, was opposed to the principles adopted by the authors.

Veríssimo dos Santos concluded that slavery, being one of the hardest punishments a man could suffer, could only be applied to those that had committed grave felonies. 5rAs such, he considered the enslavement of the children of slaves an injustice since they should not participate in the parent's guilt. The filiation argument was unjustifiable, more so because "being rational creatures, in the early period

entering this life, capable of deserving or nor deserving, it follows quite clearly that the natural laws would pronounce them incapable of deserving without guilt such a grave punishment as slavery” (Santos, 1772, 18).

The condition’s heredity was also associated with another matter of extreme relevance to seventeenth-century theorists: the right of propriety. If it was considered righteous, it should include the possibility of transmitting the condition, whichever it might be – opulence or misery – as any other good. In the acceptance or rejection of this right as legitimate resided the justice or injustice of the heredity of slavery. However, for the French polemicist Simon Nicolas Henri Linguet (1736-1794), it was not the law that determined the transmission of this condition, which he qualified as inhumane, but society itself “that is founded on such strange degradation of the natural principles” (Linguet, 1774, 67-71). The actual problem raised by Linguet was not about the condition itself but the justice or injustice of propriety and its transmission. The recognition of the right of propriety implied the continuation of slavery through the children. The heredity principle, legally approved, whether it befell on the accumulation of wealth or on a condition, consolidated the legitimacy of slavery by birth. In Linguet’s conception, slavery was not a total spoliation but the acquisition of an asset of negative character, not escaping the law that regulated the right of propriety.

Linguet assured that inherited transmission of the condition was the only way for the children of slaves to subsist. Freedom was of no good if, without anything else of their own, they also lacked the owner’s protection. It would be the same as condemning them from birth to death. Additionally, if the child belonged to the parent and this to the owner, then the child belonged equally to the owner. Because freedom and slavery were both a consequence of the law, which, on the one hand, decided the slave belonged to the owner and that he had right over him without exception, and, on the other hand, placed the child in total dependency on the parent. The freedom of the children of slaves contradicted these two determinations and, as such, any disobedience went against both law and society, which had in parental authority one of the central principles of social coexistence. The child could not belong to the parent without belonging to the owner, and any legislation that subtracted the child to the yoke of one to obey natural law violated the civil law that subjected him to the power of the other. Either the parents had no power over the children, which led to society’s destruction, or this power, if kept, had to be subordinated to the established norms and, in this situation, paternal authority would be the rightful, unassailable, origin of inherited slavery. He adds that paternal authority also worked as an indispensable factor for the child to learn to respect the law, which,

according to Linguet, was in itself sufficient reason to legitimize the heredity of slavery (Linguet, 1774, 72-80).

This issue did not go unnoticed by one of the main representatives of liberal natural law philosophy, to whom propriety was a key concept. To John Locke, propriety, which included life, liberty, and goods, was one of the natural rights the State should protect and ensure to individuals. He does not deny the existence of slavery, which he defines as a continuous state of war between a legitimate conqueror and his captive. He considers the slaves as prisoners of a “just war,” subjected to the absolute domination and arbitrary will of the winners, in accordance with natural law. Consequently, they were incapable of possessing any type of propriety and could never be considered as integrating civil society. Under the despotic power of their owners, and until there was a contract annulling the state of war and ceasing slavery, the slaves, parents, and children, constituted private propriety, subjected to the authority of the State (Locke, 2007, §24, 52; §85, 104-105; §73, 93-94; § 123, 142; §172. 189-190).

C – Condemnation by court to the condition of slave took on a character of punishment to which any person could be subjected to if he did not respect the socially established rules. As in societies, in the state of nature, the punishment was licit by natural laws. Since long ago, penal and canonical laws adopted slavery as a punishment for grave crimes, breach of contract, or insolvency²⁰. It should be recalled the cases of Christians condemned to slavery for assisting the moors in the wars against the Christians, and the insolvent debtors, which were delivered to the creditors until their debt had been paid with their work.

The jurists and theologians of the sixteenth century accepted this justification as one of the legitimate reasons for slavery and slave trade. Fernão Pérez and Luís de Molina present it, rooting it in civil, canonical, and common positive penal law, even among the “savage peoples” (cf. Maurício, 1977, 166, 174-175; cf. Hoffner, 1977, 344-347). With some differences, these would also be the opinions of the *jus naturale* authors. Under their theories, the creditors could licitly reduce the debtors to the condition of slaves until their debt was repaid with their work. In this context, the creditor could subject the insolvent to be enslaved by a master, which would pay a pre-established price for him (Wolff, t. V,

20. One of the most polemic explanation for slavery was the religious and moral justification that placed the root of subjection in a divine curse, and justified its existence to all Christianity as a way for rehabilitation. Slavery appears, in this context, connected to the idea of sin and punishment of the sinner and the offspring, which was rooted in Cain’s condemnation or Noah’s curse on Can’s generation (cf. Pimentel, 2019, 395-438).

269). He had the right to demand from him the work to which he was obliged, even being able to force him by use of punishments, if he denied to work, yet he was never allowed to be a tyrant over him. Nature gave him the right to punish those that caused losses, but not the right over life and death, because his power of owner was applied to determine the action of the slaves, in accordance with the natural laws, and not as possession over their bodies (Wolff, t. V, 273-275).

The Italian jurist and philosopher Gaetano Filangieri (1752-1788), in the book *La Scienza della Legislazione* (The science of legislation), included a small part related to the suspension of liberty, insisting in the penal character that slavery could take. The privation of freedom or, as Filangieri named it, the “privation punishment” was one of the many types of sanctions an individual could be subjected to if he broke some of the pacts established with society. It could take on several modalities: jail, condemnation to public labour, deportation – temporary or perpetual – and exile within the country. Of these modalities, it is interesting here to highlight the condemnation of public labor and deportation.

At first glance, one might think Filangieri was far removed from a slave context. However, it can be seen that the author established the limits for a condemnation that placed a person in the condition of slave. Besides, the European courts, directly or indirectly, sent into slavery countless individuals. The author recognizes it when approximating this condition with the condemnation to public labour and, mostly, to exile in the colonial world. As he defended, the sentence brought a double benefit to society: on the one hand, it punished, and on the other, it reverted to itself the occupations of the offenders. While their bodies exhibited the marks of the punishment, their labor, either in agriculture, commerce, or in the mines or construction, would slowly compensate the society their crimes had offended (Filangieri, 1788, t. IV, 82-83). He added that the countries with colonies, where the scarcity of population did not enable the development of agriculture and industry, could take advantage of these condemned individuals, of whom society could get rid of, as an example to the rest of its members. In the jurist’s perspective, rehabilitation and, inclusively, their contribution to the creation of excellent political societies was not excluded (Filangieri, 1788, t. IV, 88).

A sentence had in itself the possibility of application to crimes of different degrees, according to its duration and intensity. Then, according to Filangieri, a larger quantity of punishments could be established depending on the quality of the crime, and slavery, perpetual or temporary, more or less arduous in accordance with the service, was among these punishments, duly proportionate to the criminal offense. Nonetheless, the use of these punishments, which

suspended freedom, deported, and subjected the individual to forced labor, should be strictly regulated by law to prevent abuses (Filangieri, 1788, t. IV, 83).

Once more, opinions diverged regarding this legal allegation. Condorcet was, again, a dissonant voice and, following Filangiere’s caveat, stressed the sentences’ lack of regulation, which further exposed the illegitimate character of slavery as punishment. For a sentence to be just, the law needed to determine its duration and form. If an individual could be condemned to public labor because the law determined the duration of the work, nourishment, and punishments in case of laziness or revolt, the same did not happen regarding slavery, where the punishment is undetermined depended solely on the owner’s whims. As for the slaves bought in Africa, concluded Condorcet, it was absurd to think them all criminals (Condorcet, 2014, 27).

D – The right of war or of the winner, with the related law of the strongest, is the most considered justification. The previously mentioned subjection from condemnation could also be the result of the commuting of the death penalty and, in such a case, was related with the prerogatives a state of war granted to the winner over the defeated. Since classical antiquity, the captured enemies, condemned to capital punishment by *jus gentium*, saw their sentence converted into perpetual slavery for humanitarian reasons²¹. This was maintained throughout the Middle Age and, in the seventeenth century, the Portuguese jurist and theologian João Baptista Fragoso, teacher at the University of Évora, stressed the relationship between slavery and the sentiment of mercy since it was introduced into the law of nations “to mitigate the fury and harshness of war” (Maurício, 1977, 153). Originating in the times long past, by giving the winner the possibility of taking control over the defeated, the right of war took on a strong relevance in the legal profile of slavery. Arguments focused on humanitarianism, defense, necessity, and punishment intertwined in this juridical title. As already mentioned, the jurists and theologians of the sixteenth century accepted this form of subjection as legitimate, limiting it to cases of war in which it was deemed righteous. With differences, this would also be one of the main topics of modern *jus naturale* discourses. However, in the seventeenth and eighteenth centuries, the question of war acquires another dimension. It was a fight between nations and a conflict between individuals, to whom natural law provided the observance of individual prerogatives and their defense in case of spoliation. The tension generated among nations was actually a reflex of these conflicts. Slavery is presented, then, not as

21. An etymological explanation for the word serf derives the vocable of the verb *servare*, related to the tradition of the emperor maintaining the life of the prisoners of war, and commuting their deaths to serfdom.

a direct consequence of the right of war but as resulting from the winners' rights over the defeated.

To Pufendorf, war did not give origin to slavery; instead, it merely gave the winner the right to kill the enemy in a just war. Men took arms to defend themselves or keep their fundamental rights. If, by chance, the winner listened to the voice of humanity and reason – contrary to the killing of the unarmed and weakened enemy – and granted him life, and derive some profit from it, depended solely on his will (Pufendorf, 1740, t. III, 71).

Such determination, he comments, proceeded only from human rationality and not from any divine right, as other authors intended, even if God approved, which was in accordance with righteous reason (Pufendorf, 1740, t. III, 71). Through an agreement, the winner could keep the life of the defeated while he promised him his, as much as possible, absolute services and obedience. From this contract ensued not only the end of the war but also the definition of the positions of winner and defeated. The obligation of a prisoner as slave was not only based on the life granted by the winner granted or on the postponement of his possible death, but also in the enjoyment of all that would have been barred to him had he been behind prison bars. Even in this condition, the slave could enjoy what Pufendorf called “bodily freedom” (Pufendorf, 1740, t. III, 74).

However, Burlamaqui warned of the confusion that was made, in practice, between freedom and what he termed “license,” i.e., an unregulated freedom, contrary to the duties of man. Freedom was understood as a middle ground between “license,” which distorted its usage, and slavery, which annihilated it completely. To prevent the different interests from clashing, it was demanded that the use of freedom did not remain under each person's criteria. The natural laws were themselves a brake ensuring and regulating the use of liberty between people so as not to offend the other's interests and be advantageous to all (Burlamaqui, 1820, t. II, 301-302). Given this, and because all have by nature the same right to freedom and choice, natural law imposed a reciprocal obligation of not disturbing the others in the exercise of these rights (Burlamaqui, 1820, t. II, 297). He concludes that human society is a society of equality because all men have to obey the natural laws and enjoy the same freedom and independence. Consequently, it is not an equality of fact but of law (Burlamaqui, 1820, t. II, 407).

From the principle of freedom, Burlamaqui extracted two fundamental rules to human behavior. The first permitted that a person treats as enemy anyone who intended to usurp such capacity from him since freedom was his fundamental right and ensured his safety regarding other individuals. He was authorized to kill his enemy with legitimacy or, by agreement, to enslave him (Burlamaqui, 1820,

t. II, 302). The second rule forbids the absolute relinquishing of a person's own freedom. The individual did not become exempt from his duties, including the maintenance of his existence. Nonetheless, he could relinquish part of his freedom if this would place him in an advantageous position, which happened when men freely constituted civil societies (Burlamaqui, 1820, t. II, 305).

In summary, even though he considered natural freedom as the most precious gift that could not be traded, sold, or lost, Burlamaqui ends up concluding that its limitation could be positive. Slavery could exist as a free man's defense against another who intended to curtail his freedom and, as such, be understood as an aggressor (Burlamaqui, 1820, t. II, 297, 407). It would even be a defense in relation to the prisoners of war who were merely old surrendered enemies and, consequently, potential adversaries. Then, the defeated on the battlefield should be enslaved, and those in their lands, even if not participating in the conflict, inclusively their descendants (Burlamaqui, 1820, t. V, 139-140). From Burlamaqui's perspective, a double humanitarian and utilitarian facet marked the custom of enslaving the prisoners of war, which had been implemented in the distant past and was almost universally accepted since life was granted to the enemy in exchange for rigorous obedience in the service of the winner. He highlights that the church itself allowed this duplicity to transpire by allowing the subjugation of the blacks required for colonial labor (Burlamaqui, 1820, t. II, 297; t. V, 140).

De Felice, a commentator of Burlamaqui's work, also understood the concept of freedom as a natural prerogative authorizing human beings to push aside, by all means, the yoke another tried to impose (De Felice, 1778, 1-6). The violation of the right of freedom led him to enter a continuous state of war with anyone trying to establish violent domination against his will. Slavery itself, i.e., total enslavement of the individual, was for De Felice exactly that: the establishment of a right based on force, which subjected a man to another that became the absolute master of his life, propriety, and freedom. This absolute dominion could exist between members of a society – civil slavery – but could also at a political level in the despotic states (De Felice, 1778, 1). Inclusively, if in the state of nature, a man deserved death due to any crime or misconduct, the offended, in the quality of judge and defender of the laws, could take control of his existence and make the man serve him instead of killing him. In any case, without oppressing him, as he refers, because if the criminal felt his slavery as burdensome and painful, he would begin to desire death and resist and disobey his master. His life depended on free will (De Felice, 1778, 6; cf. De Felice, 1820, t. II, 303).

The author distinguishes two types of slavery when analyzing the conformity of slavery with the right of

nations: imperfect slavery and perfect slavery. The former, which he frequently connects with serfdom, was a temporary situation in which individuals could not be subjected to arbitrary and despotic power, not being allowed to be killed or suffer maltreatment²². All of those who voluntarily gave or sold themselves to be only serfs, not slaves, were in this situation. A situation that to De Felice should be temporary, but that in practice ended up being definitive, as he himself confirmed in *Leçons de droit de la nature et des gens* (Lessons in Natural and Politic Law), justifying it with the convenience it offered the less fortunate (De Felice, 1776, t. I, 198; De Felice, 1820, t. II, 304). Perfect slavery, however, was always a consequence of a warlike state from which the defeated exited belonging to the winner. It was total enslavement, exerted by force and by will. In his understanding, it was required to make use of Hobbes to understand that the conflicts between individuals had always existed because of vital necessities, which led to the appearance of slaves, even before man had left the simple life of the first ages. Then, the real condition of Slavery was radicated in the continuous state of war (De Felice, 1820, t. III, 457). Yet, if an agreement were established between a legitimate conqueror and his prisoner, in which law and obedience were limited, the state of war and slavery would cease, as stipulated. The conqueror would allow the conquered the right to life, making him submissive to the master's power under the condition of serving him. From this moment onwards, he ceased to hold over him the right to kill him or even sell or donate him.

De Felice agreed with the authors that derived slavery from the right to kill the defeated of war, attributing it to the traditionally invoked principle of humanity. Furthermore, the law of nations only recognized this capacity if the enemy resisted surrender or, afterward, they were guilty of a crime worthy of capital punishment. In these cases, slavery was seen as the only resort compatible with human nature. De Felice ironizes that “Instead of killing him fruitlessly, he killed him usefully” (De Felice, 1778, 9). Furthermore, the author comments that not all armed

conflicts lead the prisoners to the same end. It was required to distinguish the right the battle provided with the right granted by conquest. In the case of battle, the right was too barbarous. Only in conquest was it permissible to imprison the defeated as slaves, intending to preserve the winner's safety. In this way, the possibility of a return of the defeated to combat was pushed aside, and a dangerous inversion of events was prevented. The resulting slaves should be treated humanely and not be cruelly subjected, meaning the assigned tasks should be aligned with their strength and talent. The slaves had then to respond rigorously to the owner's demands. The rights of both should be regulated and controlled by civil laws (De Felice, 1820, t. III, 457-459; De Felice, 1820, t. V, 143). De Felice, then, defends that slavery is not in itself an evil, and if by chance it ceased to exist, it would be required to find resources for exceptional situations in which its existence was an “absolute necessity.” Such was the case, for instance, of the American colonies, where the land-owners needed slaves to cultivate the fields (De Felice, 1820, t. III, 458).

In an epoch in which armed conflicts broke out across all Europe and the constitution of legal norms was required to regulate the relations between citizens and sovereign states, the natural law author Emmerich de Vattel (1714-1767), studying the law of nations in *Le droit des gens, ou principes de la loi naturelle, appliqués à la conduite et aux affaires des nations et des souverains* (The Law of Nations, or, Principles of the Law of Nature, Applied to the Conduct and Affairs of Nations and Sovereigns), of the mid-eighteenth century, focussed his reflexions on the prisoners of war and the condition of domination to which they might be subjected. In light of the rights and obligations regulating the relations between nations, was it licit to enslave the prisoners of war?

Like the other authors we have analyzed, Vattel assumes that men are free and independent by nature, attributes that could only be lost through consent. Their union with society, to which they were naturally oriented, did not subtract them from respecting the laws aimed at allowing them to reach the most perfect happiness (Vattel, 1802, t. I, 5, nt*). However, when submitted to the civil state, the citizens do not enjoy full and absolute freedom, nor the independence nature gave them. In such circumstances, they delegate to an authority part of their rights to establish order in the community in an egalitarian fashion. Yet, “the body of the nation” or “state” will remain completely free and independent in relation to all other men of foreign nations unless they voluntarily submit (Vattel, 1802, t. I, 2-3). Is it then possible to enslave the prisoners of war?

Vattel agrees with such hypothesis, but solely in cases where there was a death penalty, and as long as the individuals were personally guilty of actions

22. At times, slavery, mostly the one termed “imperfect”, appears connected with serfdom, which might lead to the error of interpreting both as synonyms. De Felice, mentions that there are “two types of slavery or servitude”, and associates the slavery of the first ages to serfdom (De Felice, 1778, p. 2). On the other hand, Christian Wolff describes a form of imperfect slavery that he integrates in a “society of masters”, an intermediate state between freedom and slavery. It was voluntary and both parties' duties and rights were specified in a convention made between serf and master (Wolff, 1772, t.V, 279-281). This intermediate state is, generally, present in all authors. There are the free, the slaves and those that rented their labor in Exchange for Money or an insurance of life, but whose conditions of existence linked them directly with imperfect slavery. The differences were more useful in theory than in practice.

worthy of such punishment. This final remark makes it that, of all the prisoners of war, only those individuals that enacted criminal actions worthy of death, e.g., renewed insurrection against the winner, were enslaved. The laws of war did not grant any authority to kill or enslave prisoners, and the sovereign that determined it should be deemed an enemy of the human race²³. The individual's criminal action was what could lead to such fate. In this case, between death and slavery, the author preferred the later as the solution.

The remaining prisoners of war, since they could not be killed or enslaved, and were costly to be maintained imprisoned, should be returned to their country, by agreement or through a ransom, as compensation, with the promise of not raising arms for a certain period or until the end of the war. Otherwise, no one had the right to "innocently" take the life or enslave another individual, condemning him to a fate so contrary to human nature and that was merely the maintenance of the state of war (Vattel, 1802, t. III, 152-158, 165).

4

With rare exceptions, which we tried to present, for the *jus naturale* authors mentioned in this study, slavery was strongly rejected as a condition inherent to human nature. It was, however, a legitimate institution in civil society, resulting from a contract, made possible by the original freedom, which each man had the power to use as best fit his person and rights. This made the institution legitimate and generated the grounds for its legalization. Besides, if it was legitimate, it was consequently righteous. It might even contribute to human safety and happiness because, as shown, it was presented as a possible alternative to certain irrevocable situations in which an individual's life was at stake. It inclusively benefited all society through an accessible workforce "market" at a reduced cost. Furthermore, the wealth increase obtained from their work, particularly in the

23. According to J. J. Rousseau, Vattel's contemporary, the right to kill the defeated could result from a state of war, because such happened between States and not individuals. These were only enemies accidentally, not as men, nor as citizens, but as soldiers defending the country. Then, each State could only have as enemies other States and not men, since between things of diverse nature no relation could be generated. If the aim of war was the destruction of the State, the right to kill remained for as long as they were holding arms, i.e., fighting. However, once those were laid down, they became merely men and such right ceased to exist. These principles, stressed Rousseau, were not those of Grotius, Hobbes or Pufendorf, nor were they based on the authority of the old poets; they derived from the nature of things and had their grounding in reason (Rousseau, 1971b, 63).

colonial world, would impact the whole economic sector. It was also convenient to the States themselves, which had in this institution a tool to resolve social issues like mendicancy and insolvency.

Far from being considered an evil, the authors granted it with a utilitarian attribute that, in their optics, did not offend human dignity, as long as executed within the principles guided by righteous reason. In Pufendorf, slavery was a security both for slaves and masters. In Burlamaqui, it sprung from a bellicose state, from which the defeated always exited belonging to the winner. Filangieri stressed slavery's penal character, while for Wolff, slavery was something natural within civil society. De Felice believed it was the consequence of a free choice always pressured by a vital necessity, and Vattel sees in the institution a way of saving the prisoners condemned to the death penalty.

Either justifying it as a necessity or criticizing it as contrary to human nature, the natural law authors tried to define slavery and integrate it within a world where *a priori*, liberty, and equality were essential attributes of the human condition. With their eyes set on such attributes, they attempted to align it with the varied socio-political realities. The study of slavery reveals itself, then, significantly in the juridical arguments and the political-philosophical doctrines. The consideration of human nature, the rationalization of principles and the specifying of concepts as varied as freedom, equality, philanthropy, utility, or civilized and savage, authority and protection, besides the formulation of rules constituting the right to life, to dispose of one's own freedom or that of others, the right of war or of the winner, the right of propriety, and even the evaluation of the concept of *jus gentium*, all of them are examples of topics that filled the theoretical constructions created around slavery in a time when so many discourses were made about rights and duties, either natural or civil.

Slavery is not a natural phenomenon but a creation of the human will, which sustained and legitimized it with the most diverse arguments and legal constructions. It did so appealing to natural and positive law, to the public and the private sphere, to humanitarian principles and feelings, to religious and natural determinism, and even to social imperatives. Each epoch had its way of dealing with this reality and exposing its justifications, revealing that slavery was a very analyzed and discussed institution. Because of this, its justifications matched the social and mental transformations taking place across the centuries. With its many moments and movements, the Modern Age was one of such periods in which the issue of slavery appears integrated among the philosophical and juridical theories, i.e., the cultural points of view particular to this historical period.

The *jus naturale* thinking of the Iberian school of natural law suffered the impact of the

renaissance and the European expansion, favoring a progression of the medieval naturalist tendencies. As exposed in this study, the rise of classic thought, the promotion of secular values, the valorization of experience and critical thinking, the singularities of the overseas regions, and the expansionist interests were paths to reconsider the traditional legal formulations and to adjust them to new realities and conceptions. The critical reflexions of this first moment of modernity generated the ballast for the theories developed in the seventeenth and eighteenth centuries by the natural law theoreticians. In this second moment, the questions related to the colonial reality burst forth, while in Europe, civil societies, religious divisions, and sovereign powers were being consolidated in a climate of great social and political turmoil.

It was indispensable to define legitimacies and legalities. Unlike in the Middle Age, in which the *jus naturale* theories presented theological justifications, in the Modern Era, natural law evolved to conceptions related to the individual, his natural prerogatives, his rational capacities, and desires that enabled him to be, in the earthly world in which he lived, an active agent in his for his own person and society's preservation. The Iberian theologians' and jurists' thoughts broke with the theocentric view of the world and placed the legitimacy of domination in the sphere of the *jus gentium* principles and the human determination of positive law. For the *jus naturale* authors, slavery appeared justified in civil society, sustained by secular cultural presuppositions in which the principle of individual freedom, the social conventions, and the sovereign power took pivotal positions. It must be noted the decisive relevance given to individualism and contractarianism underlying the whole enslavement process, where the contract was directly made between individuals or an indirect consequence of a contractarian societal projection. Either way, natural law, connected to human nature and for this reason a-historical, and positive law, linked with the time that conforms, modifies, and destroys it, are two instances working unopposed and through which explanation and justifications were searched for concrete circumstances inherent to life in society.

The natural law authors here presented did not propose the total abolition of slavery. Nonetheless, their theories, while accepting it in certain circumstances, changed its features. It can easily be noticed the appeal to an existence where the justice and humanity of the more favored sympathized with the plight of those less fortunate. All appealed to a limitation of the powers of the slave-owners and granted rights and duties to the slaves. Both were men, which made it sufficient to provide to each the specific rights and duties, always based on the attributes of human beings. Yet, despite this humanizing wind, the old practice appeared justified with a new

theoretical construction, from which sprung some of the most discussed principles of modernity. The practice had come from antiquity, but it had a new theoretical dressing fit to the times.

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Manfredo Tafuri and autonomous architecture: A disciplinary discussion of the 1970s

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ABSTRACT: In the 1970s, architecture criticized the utopian legacy of modern avant-gardes and promoted a return to the world of art and hedonism, and aesthetic pleasure. This return, propagated by architectural phenomenology and postmodernism, was strongly criticized by the Italian historian and critic Manfredo Tafuri, heir to the Critical Theory tradition developed by the Frankfurt School, whose historiographical work most influenced the development of architectural theory in the last decades of the 20th century. This paper revisits this controversy that in the 1970s fueled disciplinary debates on architecture in Europe and the U.S.A., significantly contributing to the emergence of poststructuralist currents in the transition to the 21st century.

Keywords: Postmodernism, Phenomenology, Tafuri, Senses and sensations, Aesthetics

1.

In the 1970s, with the critique of utopias carried out by Postmodernism in Europe and the USA, architecture moved away from the progressive ideals of the Modern Movement and approached the conceptual model of artistic practices, nurturing the belief in a certain idea of “disciplinary autonomy.”

In Europe, this notion of “autonomous architecture,” freed from social and utilitarian constraints, spread with the *Tendenza*, the Italian neo-rationalist movement represented by Aldo Rossi, who took up the linguistic bases of rationalism to accentuate its artistic aspects, giving them a new supremacy in architectural production.

It also found support in the phenomenology of architecture, which since the mid-twentieth century had been consolidated as a method of analysis and understanding of architecture, the city, and the environment built by man.

Architectural phenomenology attracted architects disillusioned with modernism with the paradoxical promise of finding a kind of pre-modern architectural experience with which it would be possible to give expression to a new postmodern architecture (Otero-Pailos, 2012, p. 137).

Phenomenology recognizes the importance of senses and sensations and values the unmediated (i.e., pure) perceptual experience of space and architectural objects, seeking to explain how these give rise to or

influence a wide range of psychological states. In addition to pleasure in architectural beauty or other “positive” aesthetic properties, how we experience architectural objects also contributes to more neutral and even less positive mental states. Perceptive experience shapes the way we look at our environment broadly, and it can contribute to the way we understand and interact with these built structures.

The idea that architecture can be improved by understanding our perception of space emerged in the 18th century when British empiricism began to investigate the mechanisms of sensory experience that would support Aesthetics as a branch of philosophy dedicated to the study of judgments about our experience of sensations like pleasure and displeasure.

At the end of the 19th century, with neo-Kantian psychological theories, it takes its modern form with the theory of Empathy, by authors such as Robert Vischer, Heinrich Wölfflin, and August Schmarsow, consolidating itself in the empirical psychology and philosophy of the mid-20th century, based on the work of philosophers such as Edmund Husserl, Henri Bergson, and Maurice Merleau-Ponty. In the 1970s, the discussion of the perceptual experience of architecture took its most modern form, influencing the theoretical positions taken by writers as diverse as Christian Norberg-Schulz, Ernesto N. Rogers, Kenneth Frampton, and Charles Moore.

2.

In the U.S.A., Postmodernism gave rise to an aesthetic significantly different from that of the Modern Movement, from which it sought to distance itself. The failure of modern architecture's social transformation program motivated the retreat from social commitment to formalism and the return to a purely disciplinary dimension, emptied of any utopian or political impulse.

Colin Rohe was one of the first architects to take up postmodern positions in the early 1970s, claiming the right to pleasure and a hedonistic architecture, freed from the ideals of social reform, without giving up; however, the aesthetic achievements of the 1920s, especially Le Corbusier's work. In this way - as he claims in his book *Collage City* published in 1978 - we can enjoy the aesthetics of utopia without suffering the inconvenience of political utopia.

This tendency, which then became increasingly dominant in the United States, was developed mostly in IAUS, *Institute for Architecture and Urban Studies*, around the magazine *Oppositions* (1973-1984), by a group of collaborators committed to the ideological dismantling of modern architecture and the defense of disciplinary autonomy.

This cause was defended by two groups that led North American vanguard architecture: A strictly New York current, centered on the "Whites," also known as the New York Five¹, interested, above all, in formal self-referenced codes, defending, in line with Colin Rowe, the "hedonistic rejoicing in modernist forms," i.e., the return to a "pure architecture"; and the "Grays,"² with European affinities, namely the Italian *Tendenza*, and investigations centered on the linguistic and symbolic dimension of architecture, also following the popular line of Robert Venturi, whose book *Learning from Las Vegas*, co-authored with Denise Scott Brown and Steven Izenour, had been published in 1972.

In the first half of the 1970s, the idea of disciplinary autonomy defended by these two groups was vehemently rejected by the Italian historian Manfredo Tafuri, who attacked the North American

vanguard, criticizing it for its alienation from economic and social reality.

In his opinion, personalities such as Peter Eisenman or John Hejduk, committed to the exploration of individualistic approaches (private languages, as Tafuri points out), do nothing more than articulate a discourse totally alien to reality, reinforcing the residual character of an activity and a discipline that are now totally useless.

This criticism by the Italian historian, which appears already in *Teorie e Storia dell'Architettura* (1968) with negative comments to the Venturi's "light" use of History, is developed with great sharpness in the essays *A Theory of Criticism*, published in 1974 in the third issue of the magazine *Oppositions*, under the title *L'Architettura dans le boudoir: The language of criticism and the criticism of language*, and *Le Ceneri di Jefferson*, the last chapter of *La sfera e il labirinto*, published in 1980. In *L'Architettura dans le boudoir*, the Italian historian presents the work of the New York Five (but also that of European architects such as Aldo Rossi and James Stirling) as a paradigm of contemporary architects' escape from the "realm of the real" to the universe of language (universe of signs).

This fugue seeks to recover the dimension of the object and its *unicum* character, removing it from its economic and functional context, setting it as an exceptional moment –and therefore surreal, in Tafuri's understanding – placing it in parentheses in the flow of objects created by the production system" (Tafuri, 2000b, p. 161; 1984, p. 450).

For Tafuri, the hedonistic return to language, the conceptualization of "alienated space, eroticized by a self-isolated language" (Hays, 2000, p. 146), which is imposed above all by the regressive conditions of the "bored and sedative" consumer society, only reveals the architects' inability to draw the necessary conclusions from the fate of the modernist avant-garde. In his view, the "return to language is a proof of failure," and the result is "an architecture of excess and emptiness" (Tafuri, 2000b, p. 164).

In the essay *Le Ceneri di Jefferson*, Tafuri refers to the formalism that characterizes the production of the North American avant-garde of the 1970s as a futile effort of an architecture that had reached a dead-end, at the bottom of its dissolution, of its objective weakness, of its alienation from the collective reality, indulging in the "exaltation of its own isolation," in a "diffuse tendency to experiment with private languages, devoid of any function, paradoxically removed from the linguistic realm," ending a process of fracture between architectural production – increasingly developed as a private, solitary and subjective act – and the real world.

The "war is over," and with its end emerged the "fairy tale" of the "image manipulators" of postmodernism (Tafuri, 1984, p. 525, p. 535).

1. A group of five New York architects (Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk and Richard Meier), whose work was presented in 1967 at the Museum of Modern Art, in an exhibition curated by Arthur Drexler.

2. Romaldo Giurgola, Allan Greenberg, Charles Moore, Jaquelin T. Robertson, and Robert A M Stern. These five architects, known as the "Grays", attack the "Whites" on the grounds that their pursuit of pure modernist aesthetics resulted in impractical buildings that were indifferent to location and users, i.e. divorced from everyday life. They were aligned with the architect Robert Venturi with whom they shared an interest in American vernacular architecture and emerging postmodernism.

3.

In the early 1980s, and as theories of Postmodernity were consolidated, Tafuri's radical position began to be scrutinized by various authors, many of whom accused him of having a monolithic view of history and, above all, of ignoring the sensory and phenomenological dimension of architecture. In this context, in 1982, one of the most relevant readings of Tafuri's work was published – the essay *Architecture and the Critique of Ideology* by the theorist and literary critic Fredric Jameson (Jameson, 2000, pp. 440-461).

This author analyzes the work of the Italian historian from the Marxist context in which it was produced and from the historiographical dilemmas faced by authors committed to a dialectical view of history since the late 1960s.

Jameson relates the Italian historian's position to the "end of ideology" slogan promoted in the United States by right-wing political currents during the late 1950s and the emergence of a new social order that was called "Post-Industrial Society" and which, over time, acquired designations such as Consumer Society, Consumer Capitalism, Society of Spectacle. The emergence of Late Capitalism was accompanied by a wave of pessimism and disenchantment with a system that gave rise to "new forms of struggle and resistance" – such as the great revolts of the 1960s that unleashed new social forces associated with race, gender – but which came to be connoted with totalitarianism and in which revolt no longer meant the emergence of new forces of resistance and a radically different future, but only "a mere inversion" within the system itself, "a punctual change of this or that characteristic" of "a system that is no longer dialectical in its strength, but merely structural(ist)" (Jameson, 2000, p. 451). From the comparison of the book *Progetto e Utopia* (1973) with two other milestones in dialectical historiography, *Philosophie der neuen Musik* (Philosophy of Modern Music, 1949) by T. W. Adorno and *Le degré zéro de l'écriture* (Writing Degree Zero, 1953) by Roland Barthes, Jameson concludes that the negativity of Tafuri is a requirement of dialectical thinking.

In his view, the sense of the necessary failure, of closure, of irremediably insoluble contradictions, and of the impossibility of the future is a structural characteristic of the dialectical thought common to these three authors (idem, p. 446).

The "growing suffocation caused by capitalism" and the "liquidation of all aesthetics" ends up conveying a "paralyzing and suffocating" sense, which sees any type of architectural or urban innovation as mere "uselessness."

It is this "negative" sense that Tafuri shares with Adorno and Barthes; the three authors see history as "a closed process," increasingly closed by a "totalitarian" system in increasing expansion, confirming the thesis defended by Jameson that

dialectical history always represents, and in any circumstance, "the history of a failure."

This negative attitude wraps architecture in a tight ideological veil of intellectual, cultural, and economic forces, from which it is difficult to free itself. In this sense, dialectical, "analytic," and "rigorous" history is compared by Jameson to a "stoic renunciation of action"; to an "almost Hegelian renunciation of all possible futures."

Tafuri's statement about the impossibility of contemporary architecture to achieve something more than "sublime uselessness" (Tafuri, 1985, p. 10) must be read in this light. Instead of being a "carefully considered opinion," it constitutes a "formal necessity" of the dialectical historiography that has fed his work since the second half of the 1960s (Jameson, 2000, p. 450).

4.

In the transition to the 21st century and as the almost absolute hegemony of Marxist thought declines and the historicist phase of postmodernism recedes, post-structuralism ceased to be just an intellectual fad to be a working theory that was being consolidated with other theoretical impulses (e.g., post-critical interpretations of the Frankfurt School, psychoanalysis, feminism, gender, race, post-colonialism).

In these years, Tafuri's position continued to be evaluated, as in the essay by the architect and historian Ignasi de Solà-Morales, published in 2000, in which the author bases his criticism of the work of the Italian historian with a return to the emotional dimension of architecture, not in the hedonistic strand proposed by the North American vanguard of the 1970s, but in harmony with the European tradition of phenomenology.

Despite recognizing Tafuri's contribution to the historiography of modern architecture, the Spanish author nevertheless accuses him of being incapable of going beyond the extremely rigid schemes of the Critical Theory founded by the Frankfurt School philosophers.

Solà-Morales argues that the qualities that make Tafuri's work unique are the same ones that weaken it. Reiterating the critical analysis previously carried out by Frederic Jameson, he affirms that this weakness resides precisely in the dialectical character of Tafuri's work, in the way it crosses the architectural discourse with the discourse on economic and political reality.

For Solà-Morales, Tafuri errs precisely for valuing the "more real side of reality" and for attributing infinitely superior credibility to the social sciences, which, in his texts, enjoy a much more consistent epistemological status than aesthetic or poetic discourses (Solà-Morales, 2003, pp. 250-251).

The Spanish historian understands that Tafuri is incapable of incorporating all the perceptive and

affective values that have little or nothing to do with the historical needs of “critical history.” Any experience whose object is sensible pleasure is disqualified by its critical intellectualism, as if this purpose, which Solà-Morales understands proper to art of all times, were the “quintessence of a hedonism denounced as the most negative of faults.”

In *Le Ceneri di Jefferson*, Tafuri states that the pleasure one derives from reading the works of Hejduk, Eisenman, or Venturi is totally intellectual, without any “social” value, putting the hypothesis that in these cases the pleasure is even totally selfish and private, perpetuating a “betrayal” before the ideals of the Modern Movement (Tafuri, 1984, p. 536).

For Solà-Morales, the rejection of the “pleasure of the text” (according to Roland Barthes’s terminology) is part of the prejudices with which Tafuri approaches the experience of architecture, which prevents him from having any kind of phenomenological approach. The refusal to accept sensitive or affective values is so frequent that this prejudice eventually helps demonstrate its interpretive system; Tafuri, a priori, rejects any kind of architectural experience that cannot be reduced to grammar (Solà-Morales, 2003, p. 252).

Solà-Morales concludes that thirty years after the founding gesture of the essay *Per una critica dell’ideologia architettonica*, published in 1969, the re-reading of Manfredo Tafuri’s historiographical and critical work reveals “with a certain cruelty” its own historical dependencies as well as a clear ideological agenda easy to identify with dominant currents of thought in the turbulent years of the post-May 1968.

In this sense, he understands that Tafuri’s work is outdated from a historiographic point of view and that today it would make no sense to develop, in view of Tafuri’s production, a new radical critique based on a new discourse that unmasks all ideology. It is true that Tafuri’s radical position is due to the straightjacket of structuralism that has fueled his work since the 1960s and which, as Hilde Heynen has also pointed out, led him to a relatively monolithic interpretation of modernity, always seen as a “blind historical force” that does not allow to reach any conscious project of emancipation and liberation (Heynen, 1999, p. 145). However, as this author also states, the publication of *Architettura Contemporanea* in 1976 marks a substantial change in Tafuri’s thinking, who in the late 1970s was able to review his perspectives, moving closer to poststructuralist currents.

Postmodernism and, above all, poststructuralism breaks with the “modern” way of seeing the world, particularly with the Enlightenment project. They are characterized, in the first place, by the rejection of universal values, timeless essences, historical meta-narratives, the supremacy of scientific rationality, and the possibility of objective knowledge,

putting concepts such as reason, truth, and totality in crisis, as well as the notions of subject, progress, space and linear time.

For postmodern and poststructuralist authors, “there is no common denominator - nature or truth or God or the future - that guarantees that the world is One or the possibility of a natural or objective thought.”

Reality is a subjective construction that cannot be understood except through socially defined and, therefore, distorted categories. The world is thus unstable, its knowledge is constantly changing, and any meaning is always a discourse about something that is momentary, relative, contingent.

In *Architettura Contemporanea*, co-authored with Francesco Dal Co, the influence of poststructuralism is present in a pronounced way, as noted by Heynen. In this work, the emphasis is placed, from the beginning, on the multiple characters of the history of contemporary architecture. Modern life has such a plurality of strata; the truth is so diverse that it becomes impossible to portray it exhaustively, which leads Tafuri to assert that “obviously the intersection of all these varied stories will never end up in unity” (apud Heynen, 1999, p. 145).

This influence can also be read in *Il Progetto Storico*, the introductory chapter of *La Sfera and il Labirinto*, with Tafuri drawing attention to the plurality of languages that architecture and criticism necessarily have to deal with. The languages of the design, technologies, institutions, and history cannot be related through universal hermeneutics; they remain fundamentally distant, they are, in essence, untranslatable, and their plurality is irreducible.

This means that architectural criticism cannot establish a direct link with architectural practice. The two disciplines operate within different linguistic systems, and their goals are not reconcilable.

5.

Although the conceptions of Post-Modernism are dominant today, Tafuri’s theoretical and historiographical legacy continues to be reflected in the growing emergence of post-structural currents that do not stop thinking about architecture critically as a nexus of power and knowledge, of ideologies and spatial disciplines, industrial production, colonial management and normalization of subjects.

A theme that has become central to perspectives such as feminism and post-colonialism, fully in tune with the rejection of all-encompassing notions of truth, unity, and progress, is opposing elitism in culture and promoting recognition of the fragmented nature of communities and the variety of lived experiences.

In this context, dominated by relativism and the recognition of pluralism, discontinuity and heterogeneity, difference and otherness (Eagleton, 2003, pp. 24-27),

all forms of knowledge are understood from heterogeneous worlds of difference and the discourses associated with certain forms of essentialism are seen as a “danger.”

For this reason, poststructuralism theorists tend to avoid the word aesthetic when addressing topics such as the pleasure of architecture, desire as a spatial structure, and buildings as devices of seduction.

Modern aesthetics adopted an essentialist and normative discourse, articulated from the senses and direct influence of architecture on human psychology, with a view to the possibility of empirically verifying the aesthetic merits and demerits of buildings.

This led to rules and prescriptions for practice that dictated preference for certain forms over others and which, despite claims to scientific status, tended towards traditional techniques and forms of European and North American architectural culture (Macarthur; Stead, 2012, p. 126).

For this reason, the interest in beauty and pleasure came to be seen by poststructuralism as anti-intellectual and aesthetics as a reactionary attempt to normalize an uncritical description of architecture (2012, p. 127).

In this sense, as Frederic Jameson also mentioned, the arguments that support the criticism made of Tafuri by Solà-Morales cannot be sustained in the face of the developments in the precepts of the “post-critical” cultural scenario that was consolidated in the first years of the 21st century, and that, among other themes, requires a reassessment of traditional concepts of beauty.

By resuming the phenomenological dimension of architecture, Solà-Morales raises the issue of the subject’s “experience” with the architectural object or the city. As the “good” poststructuralist that he is, Jameson remembers, however, that any relationship of this kind is necessarily a socially constructed one.

Arguments based on conceptions of the human body, mainly in phenomenology, tend to be ahistorical and involve assumptions about a certain “human nature,” an eternal essence that supposedly is always hidden behind the data of apparently “verifiable” physiological analyzes and scientific. Given this argument, Jameson argues that the body is actually a social body and that there is no *a priori* human body (timeless, ahistorical, totalizing, and universalizing), but rather a whole historical set of social experiences of the body, all a variety of bodily norms projected by a series of different historical “modes of production” or social formations (Jameson, 2000, pp. 442–43). In this sense, the “return” to a natural “vision” of the body in the space projected by phenomenology also comes to seem ideological, if not nostalgic, contrary to what Solà-Morales suggests.

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Rehearsing a performative theory for architecture

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ABSTRACT: This chapter aims to narrate the various interpretations of Performance and Performative and explore their ability to be imported, from various disciplines, into the spatial design theoretical discourse. Moreover, it will be examined how, despite many interpretations and definitions, they still converge and intersect in a common general theoretical approach. A performative-oriented architectural discourse pushes the discipline to discover new perspectives and newer spatial and mental qualities that rethink the notion of creativity and suggest new performative approaches to spatial design and research that are worth being invested in a psycho-pedagogical discourse. This paper will also explore the possibility of shaping an architectural theory based on the performative concepts and rehearse that theory. The focus will be on the main concepts of the Performative: the scenic potential, the open-form, and flexibility, the social and the participatory, the event-character in spatial situations, the transformative power of architecture, the strategic attitude towards spatial design, and the performative mental skills.

Keywords: Performative, Architecture, Skills, Theory, Performance

The philosophy of language, performance studies, social sciences, the speech act theory, the phenomenological nonrepresentational theory, dramaturgical studies are disciplines that theorized about performance and performativity. Many of their concepts and methodologies are recently penetrating the architectural discourses. Is it possible to shape an architectural theory based on the concepts of the performative? How useful is it to discover and define new approaches to spatial design and architectural research based on Performance and Performative theories? How can we invest them in a psycho-pedagogical for architectural education?

1 TOWARDS A MENTAL PERFORMATIVITY

Mental performativity is here suggested as an inclusive mental skill required for today's architects and designers. They must be able to deal with a complex contemporaneity and handle a wide repertoire of performative qualities in architecture. Also required is the ability to handle different scales and types of projects: curating events, exhibition design, community, and social-oriented projects, designing expos' pavilions, adaptive reuse projects, urban refurbishment, sustainable and environmentally friendly projects, etc. The mental performativity is presented here as a skill, superior to the classical notion of creativity, and goes beyond the ability to design nice forms. It is more inclusive and proposed to indicate an ability to perform, play different

roles, and manage systems and processes. The notion of creativity is therefore in crisis.

This proposed notion of Mental Performativity opens a psycho-pedagogical discourse in architecture and design education, highlighting the necessity to promote pedagogical models that can develop such mental skills. These skills are more inclusive, embedding strategic and managerial abilities.

However, before going further with this proposed Mental Performativity, we need to detect and locate the notions of Performance and Performative within Architectural theory and history, even though a project of a general Performative architectural theory seems to be interdisciplinary and multiparadigmatic due to the semantic width of the terms performance and performative and their multidimensionality. It is, therefore, necessary to investigate the Performative, through its relation with 1st, the critique of functionalism, 2nd, the relation with postmodernism, 3rd, the relation with the Performative Turn, 4th, the Phenomenological Non-representational theory, and 5th, the connection with the spirit of the Situationist international, arriving later to weave the common lines between them.

2 A PERFORMATIVE SEMANTIC WIDTH

Many uses of the terms Performance and Performative by various scholars can be detected and will be mentioned throughout this paper. The various interpretations reflect the semantic width and the

linguistic flexibility of the terms. Out of those various definitions, we shall focus on six main ones that constitute the main repertoire of the Performative space:

- 1- The first definition includes the concepts of scenic potentials and the theatrical qualities in architecture.
- 2- The second is based on the concepts of open-form, flexibility, and metamorphic spaces.
- 3- The third includes social and participatory considerations in the design process.
- 4- The fourth relates to the event character in spatial situations.
- 5- The fifth is based on the idea of the transformative power of the performative and the power to change and to be changed by architecture.
- 6- The sixth relates to the concept of the open-ended design process and strategic attitudes towards spatial design.

3 PERFORMATIVE, PERFORMALISM, OR PERFORMATIVISM?

[...] performative project envisages spaces that are designed to be open to change: the design itself seeks to welcome and encourage transformations [...] The performative project lets things happen, namely it lets us appropriate a space [...] It leaves room to the unexpected, to the indeterminacy [...] The idea of open form – distinctive to late modernity – not only accepts but even requires uncertainty ambiguity, incompleteness, imprecision [...] Forms and functions are neither determined nor determining [...] (Signore, 2015, p. 174).

We already noted that in some publications, it was attempted to propose a manifesto with an ‘ism’ (as in Performatism), while in others, it was not. Instead, only the -ive (as in Performative) was used. Both sides kept acknowledging the diverse notions of Performative and its semantic width. Performative as an adjective expresses an aspect of potentiality and constitutive power - basing on the philosophy of language and speech act theories - and seen as something that one can do, rather than something one is (Taylor, 2010).

An emerging interest is to reflect on architecture through performative criteria, using more inclusive analytical and descriptive perspectives, ranging from narrow quantitative dimensions to more qualitative characteristics that include cultural implications (Picon, 2012, p. 19). The semantic width and the linguistic flexibility of Performative and Performance make the project of an architectural theory complicated, interdisciplinary, and multiparadigmatic. What

could be done - as McKenzie proposed - is to rehearse a general theory of performance. And that consists of performing the theory and the research towards it. (McKenzie, 2002, p. 4). This attempt to rehearse a general theory makes the theory itself performative. The research and the process are, in fact, the performative act. The performative nature of this process-based approach to theory seems to require unfamiliar methodologies, letting the argumentation and the redaction of the produced theories unfold, away from rigidly determined methodologies, from pre-prescribed agendas, and from circulating the usual classics of references in the academic architectural work.

Each of the six dimensions of uses that we defined earlier in this chapter relates to a certain manifesto, a movement, or an architectural theory. For instance: Theatricality relates to the interest in scenography in postmodernism. Flexibility relates to the complex systems of the 60s. The event-character is linked to current social considerations in architecture. Open-form relates to the critique of modernism and pure functionalism and connects with current participatory and social trends in architecture. While other dimensions have stronger connections with the movement of the Situationists International, the Performative turns and the emphasis on ephemeral aspects in architecture. All this will lead us to another paradigm and an additional dilemma facing the project of a performative architectural theory: Could an architectural theory of the performative be that global and specific at the same time? Can it combine both universalities and singularities at once? Can the probable Performativism mean lots of things and one thing at the same time? Can the theory act as a situation-specific analytical tool?

Regarding his performance theories and studies, Richard Schechner confesses that he believes in this combination of both universalities and singularities:

I believe both in universals and singularities. How can that be? [...] culture and individuality determine how these are used, subverted, applied, and “made into” who each person and each social unit is. For me, there are “realities” at all levels of the human endeavor: biological–evolutionary, cultural–social, individual. These overlap and interplay. To assert a connection between the ethological, the anthropological, and the aesthetic is not to deny local and individual variation and uniqueness (Schechner, 2004, p. 12).

We believe that this is partially due to the inevitable terminological nature of the terms Performance and Performative. It is also due to their semantic flexibility, which is a problem facing the project of an architectural theory of the performative. This is, however, a potential for it

(Dirksmeier & Helbrecht, 2008). Therefore, the solution is to acknowledge all the multidimensionality of the terms and eventually characterize the potential theory as a performative one, responding to the logic of Openness and Flexibility. Thus a Performativism is a situation-specific manifesto; it can be universal and general, and it can be very specific as well. It is a Performative analytical tool for architecture that is open, flexible, inclusive, situation-specific, holistic, multidimensional, and at the same time reducible to few or even one dimension/interpretation. Thus, due to the above reasons, we may imply that Performativism is closer to be a general performative approach or a dramaturgy than an actual well-defined theory or architectural movement.

Today's world of architecture seems to be growing complex, cross-disciplinary and competitive. Therefore, it is necessary to have a flexible mental skill or a new mental attitude that shall rehearse a performative dramaturgy customized for any spatial project. Performativism indicates spatial qualities (open, flexible, participatory, scenic, etc.). It can also indicate the performativity of the designer when handling complex processes in a fluid and complex contemporaneity.

Most of the publications that we encountered dealing with notions of Performativity and Performance in architecture have acknowledged openness towards different interpretations of uses. Some scholars have used the term Performance-oriented, few others have proposed ambiguous Performalism or Performativism, while others have suggested more specific principles, like 'the new five points' proposed by S. Lavin for a newer architecture - that we will showcase later in this paper - opposing to Le Corbusier's five points of modernist architecture.

If it is proved that the diverse dimensions and meanings of Performance and Performative intersect and converge with each other, then this will give the possibility of suggesting one general performative approach, or a performative dramaturgy, that applies to spatial design. The interest shall not be promoting a new Performativism, nor a "form follows performance" and neither a well-defined architectural theory. After all, the -ism holds a strong sense of a clear movement and a defined theory based on fixed criteria. This, however, opposes the flexible and open nature of the terms Performance and Performative. The term Performative refers to a gesture, a quality, a potential, and an attitude. It is, in fact, a critical tool with the potential to mean and be used in different ways. The term Performative has also proved to be applicable to architecture (spatial qualities), design (practice), and intellectual skills.

David Leatherbarrow stated that performative and performance in architecture reflect a shift of orientation in architectural theory and practice from what the building 'is' (meaning, symbolism,

function) to what it 'does' (its performance, its performativity) (Leatherbarrow, 2005, p. 7). The interpretation of what the verb 'does' means in Leatherbarrow's statement remains open. Another problem facing the attempt to clarify a performance theory in Mc Kenzie's opinion, is that all the "different researchers have known little about one another's performance concepts [...] who -or what- decides what performance is, and who -or what-performs that which is decided?" (McKenzie, 2002, p. 16-17). This implicitly refers to a need to dig in new bibliographies and unusual references and be curious about unfamiliar methods and methodologies used to construct arguments and build new concepts. Thus, as in a performative architecture, the mechanisms of a performative architectural theory should also be non-linear, nomadic, and flexible. The relations, logic, and unfolding arguments should be networked more than framed (McKenzie, 2002, p. 13-48).

4 PERFORMATIVE METHODS AND METHODOLOGIES

Another step to be explored is to check the 'importability' of concepts from disciplines -that had already theorized about Performance and Performative- into the architectural discourse, such as from social sciences, performance studies, linguistic and dramaturgical studies. Most of their elaborated concepts and theories were concerned with the following common points:

- The singularity of the event and the situation in space and time.
- The metaphorical use of performance (analogy between performance and spatial situation).
- The use of performance as an analytical tool (analyzing through a performance perspective).
- The emphasis is on the systems of processes and practices rather than the symbolic aspects.
- The focus is on the active construction of reality more than on its representation.
- The semantic and the theoretical openness, and the methodological flexibility.
- The emphasis on the process and the event- character of the studied phenomenon.
- The acknowledgment of the unscripted and the unpredictable.
- The recognition of the complexity and the need for a corresponding holistic methodology for research.
- The abolishment of the boundaries between the scientific observer and the subject of observation. (The scientific observer and his research are part of the performance).
- A process of generalization and theorization can be rehearsed and performed; therefore, it could be open and incomplete.

- the unfinished and the un-designed are part of the process and the final product (Signore, 2015). Therefore – as in a performative architecture - the research, the theory, and the construction of arguments can be left open to unfold towards unexpected results.

In those regards, the Phenomenological Nonrepresentational theory proposed by Peter Dirksmeier has a qualitative methodology to study complex social phenomena and can be imported into the performative architectural discourse. Because it holds in its description the tools to study spatial situations as an event or a performance. Dirksmeier described the methodology as follow:

The “performative turn” in qualitative social research focuses on the exercise of verbal, bodily and multimodal performances of artistic or social practices [...] and, therefore, on the exercise of singular and temporary events. The “performative turn” in the methodology of qualitative social research draws on a shift from the paradigm of “representation” to techniques of art/performance [...] Every event, performance, [...] must be seen as an autonomic and contingent occurrence with its own conditions and its own time structure. [...] Nonrepresentational theory is concerned with the flow of practices in time [...] Parts of the social sciences regard performance theory as a metaphor which has methodological possibilities [...] In contrast, notion of performance theory aims rather at actions than at texts [...] symbol structures. It aims rather at the active social construction of reality than its representation [...] (Dirksmeier, 2008).

In fact, the semantic scope and the process character of the performance theory for architecture are needed to handle a growing complexity with correspondingly messy methods and open methodologies for research, design, and problem-solving. Simple cause-effect mechanisms cannot explain processes.

the phenomenological nonrepresentational theory as a possible methodology for a qualitative social research [...] is provoked by “the performative turn” [...] the performative turn abolishes the different points of reference of scientific observer and subject of the observation. The social scientific observer becomes even part of the performance him/herself. The research process as a whole is (part of the) performance. [...] With the inclusion of the researcher as an active part into the research process [...] in fact it creates practices and, therefore, it does not create its own “research entities.” [...] nonrepresentational theory performance turns itself into a qualitative method

which is aligned to the complexity of social life in modernity [...]” (Dirksmeier, 2008)

The Phenomenological nonrepresentational theory finds its echoes in the practical reasoning that characterizes architecture as described by S.Wolfrum:

[...] while other disciplines employ quantitative or qualitative analysis, or inductive or deductive approaches to generate theories, design is understood as a method of invention [...] Design brings together technical, aesthetic, and social practice [...] It addresses matters and conditions such as spatial quality, atmosphere, comfort, sustainability, the everyday environment, quality of life, and social situations [...] Some indeterminable social situation that architectural and urban synthesis aims to address, with its numerous incalculable factors and unpredictable human interventions cannot however be broken down into easy-to-manage pieces [...] the design process continues throughout the entire construction process and even into the building’s actual use [...] In fact the designing begins even earlier with the definition of the problem, which is a methodological process of its own (Wolfrum, 2015, p. 178-179-180).

The Phenomenological Nonrepresentational theory intersects - in four points - with the concept of practical reasoning:

- The situation-specific and customized approach.
- The methods and the methodologies swing between quantitative and qualitative analysis, between inductive and deductive approaches, and between intuitive and rational attitudes. Therefore, the tools will remain open/performative.
- Design has to deal with a diverse range of criteria and parameters, which requires a holistic and multiparametric approach to deal with incalculable factors and to anticipate unpredictable happenings.
- The design process, the construction process, the building’s lifecycle, and its uses are all seen as unfolding events and performances. The case-studying perceives the case as an event in time and space: the before, the during, the unfolding, and the after of the project. (Kassem, 2020).

This close connection between the Nonrepresentational theory imported from social science and ‘design as a method’ will inspire a theoretical base for a potential architectural theory of performative architecture.

Notable also is the relation between the performative, the unfolding, the process-based, and the principle of the heuristics. The heuristic is the approach to simplify problems. It is also the part of the

research whose task is to promote access to new theoretical developments and findings. Its method and methodology do not follow a clear path in order to generate new knowledge.

Therefore, Performativity - if characterizing a mental process or a research methodology - means adopting those process-based, open-ended holistic processes. The performative embeds openness, flexibility, the reversibility, and it accepts ambiguity. It is a matter of swinging and changing customized tools and approaches between the rational and the intuitive. In this regard, J. McKenzie had already pointed that although the project of a general performance theory seems interdisciplinary and multiparadigmatic, a general theory of performance could be rehearsed (McKenzie, 2002, p. 16-17).

The interest here is in indicating and developing roads and possibilities that must be explored to catalyze the final theory's elaboration. Therefore, the process of generalization that attempts to shape a general Performance theory may never be finalized.

5 THE CRITIQUE OF FUNCTION

"Functionality is boring [...] performance is about what role does the building play". (Koolhaas, 2016). This simple statement by Rem Koolhaas recalls post-modern and contemporary discourses that criticized pure functionalism. Performative and Performance represent a need for new terminological and theoretical tools that are more inclusive and more expressive in architectural literature. It is a need for terms characterized by performative semantic capacities. In Rem's statement, the critique of functionality is clear, but it does not clarify what is intended with the terms 'performance' and 'role.' While Leatherbarrow has explained Performance as a shift in architectural discourse from what the building is to what it does. He has explained his further intention with the term Performance as the unscripted behavior of architecture, including all the aspects of the building that are expressed in its acts, in its performance:

[...] to understand the performance of the building we should suspend the technological and aesthetic explanations also the questions about experience and meaning, suspending also architecture's perfect rationality, because "performances or events depend in part on conditions that cannot be rationalized. This does not mean they cannot be understood, just that they must be understood differently (Leatherbarrow, 2005, p. 7).

Therefore, rehearsing a performative architectural theory requires not only to drop the quantitative functional discourses totally but also to combine

them with the qualitative ones. And as described in the Nonrepresentational Phenomenology, it is required to emphasize the qualitative discourse in a holistic, inclusive way, besides underlining the event-character of the situations (a situation of factors, actors, and circumstances). A performance-oriented study of architecture must expand beyond the pure functional discourse, considering that Performance and Performativity are qualities that cannot be studied with the tools of science and rationality alone. Leatherbarrow further claims that a functionalistic discourse does not represent the performance because being an inconstant criterion, referring to Aldo Rossi's critique of functionalism: "Uses often change throughout the life of the building [...] private houses become clinics, theaters apartment blocks, and so on. A criterion so inconstant as functional use cannot, he suggests, be used to define the building itself." (Leatherbarrow, 2005, p. 8). Performance is revealed through the lifetime of the building, through the changes and the successions of uses and reuses of the building. The performance of the building is revealed in the unfolding of the spaces through time, uses and events. In this regard, Spuybroek sees that:

Performance comes after function and after the event, between the necessary behavior, the mechanistic and the play. Performance tries to merge these [...] It is not a reductionist materialism but it is looking at the real materiality of experience, feelings, being and structure [...] there is something in between [...] but is actually a widening up of function [...] (Spuybroek, 2005, p. 246).

The 'event-mental understanding' of spatial situations and the 'multidimensional' or the multicriteria approach will fall in what we can call a performative dramaturgy that incorporates several parameters involved in the study of spatial projects. That resonates with the idea of a method that incorporates several parameters to create a form (Grobman, 2012, p. 12).

Therefore, shaping a performative architectural theory requires dropping the discourse of pure functionality as a first step. The second step is the acknowledgment of a repertoire of parameters reflected in the performative.

Sylvia Lavin, in her essay 'performing the contemporary, or: towards an even newer architecture,' suggested, instead of parameters, five points for a newer architecture: Parcours, free skin, artificial light, urban garden, and décor. An opposing newer version of Le Corbusier's five points:

The parcours is a means of organizing the plan that coordinates circulation with event. [...] takes its cues [...] from traceurs, skateboarders

who move through the city [...] Their movement, or the sport of parcours, is both pure circulation and event, socially coordinated [...] A free skin [...] is free from formal and expressive obligations to the interior and is free to develop its own qualities and performance criteria [...] The free skin gives new intelligence, instrumentalities and plasticity to surfaces. [...] Artificial light [...] that create ambiances and environments [...] The urban garden is an integrated theory of urbanism, landscape, infrastructure and planimetric design [...] a new form of post-cosmopolitan experience [...] produces an overall condition-often an urban event-out of this collective [...] Décor [...] Contemporary architecture gives architecture fashionability through an intricate assembly of parts across different scales that move promiscuously across any available surface [...] (Lavin, 2012, p. 26-28).

Setting points, parameters, criteria, or dimensions for a performative architecture is a rehearsal of this multi-parameters production of a spatial design, an architectural production based on a performative understanding. It is a rehearsal of an architectural theory based on the concepts of performance and performativity, even though these five points are very focused on the production of the form.

But, again, we point to the flexible nature of the performative theory. Therefore, setting those basics or parameters must not be defined firmly, especially that a 'performative understanding' considers the singularity of the situation. It is more relevant to have an inclusive mental understanding of architectural productions than define a fixed list of parameters or points for a new theory. The performative repertoire in architecture is wide and flexible, and it will provide every case with an adequate intellectual tool. For this reason, the performative approach is universal and situation-specific at once, which is an important aspect of all performance-related theories.

6 DOES FORM FOLLOW PERFORMANCE?

The form is visual and material, while performance is about behavior, attitude, and other immaterial aspects. So what is form when talking about performance in architecture? How do we discuss - basing on performative criteria- the production of form? Points, parameters, criteria, dimensions all are discourses of the complexity of information embedded in the design. For instance, one simple pavilion in an expo may embody a huge amount of information and reflect the intersection of a large diversity of knowledge, skills, and disciplines. Grobman sees that:

In the past decade, a significant increase in the quantity of information embodied in the form and the process of architectural design. Architecture is becoming very rich in information [...] and so form is not built or derived from a single parameter but through relationships among numerous parameters (Grobman, 2012, p. 9).

All that requires a re-examination of the systems of laws for architectural creation. A multicriteria logic in spatial design, corresponding with process-based and holistic methodologies promoted by the Performative Turn. We, therefore, suggest linking the idea of parameters with the dimensions of uses of Performance and Performativity that we set earlier:

- 1) The concepts of the scenic potential, the theatrical, and the spectacular qualities in architecture.
- 2) The concepts of open form, flexibility, the undesignated as part of the design and the metamorphic spaces.
- 3) The social, the participatory, and the contextual considerations in the design process.
- 4) The concepts of 'event-character' in architecture and spatial interventions.
- 5) The transformative power of the performative, which includes the activation of existing spaces.
- 6) The notions of open-ended process, strategic design, and mental performativity.

This main repertoire corresponds more with perceptual, metaphorical, and qualitative dimensions. It is not fixed. It is open for new interpretations and insertions knowing the semantic width and flexibility of 'performative' and 'performance.' These performative parameters will meet a spatial design's material and immaterial requirements. Hence it is required from the architectural project to perform on various levels: from social considerations to energy consumption, to qualitative characteristics, to scenic and spectacular requirements, to the capacity to generate effects, to practical requirements, to fulfilling symbolic roles, to the capacity to become an event, etc. Therefore, these parameters/dimensions that are suggested are fluid yet situation-specific. A form that follows performance is a form that can be liquified. The term liquid was used by the sociologist Zygmunt Bauman in his essay *Liquid Modernity* to analyze the transformation processes in the concept of modernity. A liquid state of matter does not possess a form of its own but a form that follows the temporal flows of transformations, emphasizing how practices and uses keep shaping the spaces and keep being shaped by the spaces. As a result, a form that follows performative parameters is a performative form, or it is even a non-form, thus the discourse of form is almost not valid. For these reasons, the notion of a non-typological space becomes useful.

In his 'Architecture as performative art,' Antoine Picon acknowledges that even if the notion of 'performative' remains unclear, the characterization of architecture as performative is still enjoying a certain success among theorists and practitioners. Thus the definition of performative criteria is an ongoing project. Picon rhetorically questions, and implicitly answers this dilemma:

What does it imply for architecture to be more and more often defined through performative criteria, from energy consumption to more qualitative characteristics like the capacity to generate affects? [...] architecture inherited a concern with effectiveness that other arts did not possess [...] Architecture thus performed at various levels, fulfilling practical requirements as well as answering symbolic needs [...] the Contemporary performalism is the capacity of architecture to become an event, to participate in a world which is more and more often defined in terms of events, occurrences, and ephemeral performances [...] (Picon, 2012, p. 18).

7 THE RELATION WITH POSTMODERNISM AND SCENOGRAPHY

In the late 1960s, the critique of Functionalism and pure rationalism became the center of debates. M. Hensel notes that some approaches to the notion of performance originated from the debates over the relationship between form and function that were dominant in the architectural discourses since the 1930s. The most criticized aspect was the program as the only approach that defines the relationship between space and space use (Hensel, 2013, p. 25-26). Another factor was the rise of semiotics in architecture. These approaches led to Post-Modernism. Postmodernism was, in turn, criticized because it was operating on a 'limited set of culturally determined references and a limited repertoire incapable of producing a new architecture. The emphasis kept shifting toward more abstract formal experimentations and to the production of architectural effects (Hensel, 2013, p. 25-26). Postmodernism evoked new and diverse critical discourses, where architecture gravitated towards scenography, communication, symbolism, narrative, irony, complexity, contradiction, collage, juxtaposition, ambiguity, multivalence, and social concerns, as noted by Hensel in his reading of the concepts of Charles Jencks on Radical Post-Modernism (Hensel, 2013).

The repertoire of 'performance' and 'performative' finds its postmodern echo in its attempt to develop flexible mechanisms that handle complexity, ambiguity, and the social dimension. Adding also to

it is the prioritization of the experience and the scenic potential in the space. Performativism could then function as a more inclusive and refined version of the 'postmodernism' with less formal/design-oriented concerns but instead with more spatial performance-oriented concerns. Thus, the performative understanding of architecture embeds a wider variety of criteria and parameters.

8 THE RELATION WITH THE SITUATIONIST INTERNATIONAL

The relation is explicit between the performative understanding of the spatial project, and the intellectual spirit of the Situationist International, on so many levels:

- The interest in the experimental and the ephemeral aspect.
- The ludic playful, and interactive qualities of the space.
- The emphasis on experience and spectacle. The situationists believed in the shift from expression to lived experiences.
- The interest in Psychogeography as the effects of a geographical environment, consciously and intentionally organized or not, and the inventive strategies for exploring spaces (Debord, 1958).
- The participatory, co-authorship, and the inclusiveness of the design process.
- The blurred disciplinarity and the antispecialism. Architecture and performativity are both fields with confused disciplinarity. Architecture can include urbanism, urban planning, interiors, interventions, etc. Performance as well is inclusive to language, theater, and human behavior, in a way that every phenomenon can be studied as a performance.

The confused or blurred disciplinarity helps architecture escape mediums and tools' specificity and pushes it to be more open for invention. Sylvia Lavin believes that a performance-oriented conception of architecture will liberate it from the disciplinarity:

[...] architecture gave to performance the liberties that come with discipline and performance gave to architecture the means to evade the restrictions that disciplinarity imposes [...] Fresh opportunities will arise when architecture tries out strategies developed by and for performance, but only if architecture understands these strategies precisely as charades, not as pseudo-positivistically measurable achievements, but rather techniques of cunning, scenography, special effects, spectacle and liveness. [...] (Lavin, 2012, p. 21).

This is validated nowadays, seeing that architectural firms are doing everything from architecture, to urban design, to interiors, arriving to be commissioned to curate events and exhibitions.

9 EVENTS AND UNPLANNED PERFORMANCES

David Leatherbarrow explains Performance in architecture through the relation between planned and unplanned performances/events, between intentionality and unintentionality in the space, unfolding through time with unpredicted events. This can also be examined within the relation between the building and its larger context. The unplanned relates to the notion of event because the latent capacities of architectures unfold in the events. In fact, this concept intersects with the aspects of spatial flexibility, openness, and the un-designed, where part of the design is strategically and intentionally left non-designed in order to let things happen, to make the architecture open for unpredictable events, and to allow future changes (growth and degrowth) in a constantly changing context, and in fluid modernity.

This strategic and anticipatory attitude can also be understood as aesthetic performance because it constitutes its subjects and shapes its objects. It is a practice that unfolds in the context, and “its power resides in the simultaneous representation of values.” (Kornberger & Clegg, 2011).

The notion of event emerges further in the discussion of form, function, and performance, as shown in the following statements. The first by Bernard Tschumi indicating the necessity to involve the notion of event in architecture:

There is no architecture without program, without action, without event [...] architecture is never autonomous, never pure form, and, similarly [...] architecture is not a matter of style and cannot be reduced to a language [the aim is] to reinstate the term function and, more particularly, to re-inscribe the movement of bodies in space, together with the actions and events that take place within the social and political realm of architecture [and to] refuse the simplistic relation by which form follows function, or use, or socioeconomics [...]. (Hensel, 2013, p. 27)

The second statement is by Antoine Picon, reflecting on architecture that can be perceived as an event and that can become an event, stating that performativity is:

[...] the capacity of architecture to become an event, to participate in a world which is more and more often defined in terms of occurrences

rather than as a collection of objects and relations as evoked by the philosopher Paul Virilio about the growth of the ‘what happens’ [...] Architectures are now supposed to perform at various levels, from an ecological footprint to the realm of affects. (Picon, 2012, p. 18)

Both statements are inclusive and underlining the multidimensionality and the semantic width of a performative understanding of architecture and architectural creation. In fact, the event-characterization of architecture (an ‘eventmental’ dramaturgy of architecture) is also based on the process-oriented character of a spatial project. The process includes spatial incidents, indeterminacy of spatial structures, sensorial experiences, atmospheres, and architectonics, all of which are constituents of architectural events (Wolfrum, 2015, p. 6).

The eventmental understanding of architecture conceives the spatial project as an event in time and space. Therefore, any architectural project could be studied and dissected into three phases: the before, the during, and the after (after the construction) (Kassem, 2019). This unfolding of the spatial project includes all the unpredictabilities.

Architecture is, therefore, an intervention, a performance, and an event with a transformative power, which is the ability to leave spatial and social changes. This can occur under three forms: ‘architecture as event,’ ‘architecture for events,’ and ‘architecture as a generator of events’ (Kassem, 2019). The transformative power of the performative is a concept imported to architecture from the philosophy of linguistics and speech-act theories: to say something is to do something, the transformative is therefore performative. It is a conception of spatial design as a performative event with transformative potentials that unfold its unpredictable characters. All that requires performative practice and mental skill is the ability to strategize and to anticipate, which puts the definition of creativity in crisis.

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The essence of architectural creation: Aesthetic experience as impetus

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ABSTRACT: Contemporary architectural creations indicate the importance of experiential richness and fulfillment of substantial and variable human needs from diverse aspects. New building designs readjust and reshape the environment while evolving with the core design intention of offering various unique experiences. This article explores concepts of aesthetic experience as the essence of architectural creation, from the intuitive formation of architectural space in the design process to the final built work defined by an architectural promenade. Between imagination and perception, it elaborates on two opposing design approaches dealing with the redefinition of aesthetic experience. The concept of estrangement regards the notion of alterity towards the environment and the uniqueness and peculiarity of the architectural experience. Whereas the second concept designates the notion of unity in its totality, from its correspondence to the environment to its unique spatial qualities. These opposing conceptual approaches indicate distinct design intentions while considering architectural experience as the genesis of the design approach.

Keywords: Contemporary architecture, Design process, Aesthetic experience, Estrangement, Unity

1 THE ESSENCE OF ARCHITECTURAL CREATION

The essence of architectural creation is the formation of an architectural space embodied with human life that frames, mediates, and shapes our reality, mind, and emotions (Pallasmaa, 2015). Contemporary precedents indicate a strive for a redefinition of architectural spaces while offering alienated experiences, as Heidegger (1971, p. 79) argued that “[e]xperience is the source that is standard not only for art appreciation and enjoyment but also for artistic creation.”

Besides Semper’s recognition that the essence of architecture lies in creating space to Schmarsow’s differentiation between Spatial Idea and Spatial Form (Schmarsow, 1994, p. 286-7), the notion of architectural space was laid as fundamental in the architectural creation. Spatial form denoted the existence of an essential condition, the composition of four planes that enclose an area, while the Spatial Idea referred to the formation of an embodied human life.

In the realm of architecture, Le Corbusier introduced the concept of the architectural promenade that clarified the importance of architectural experience. It implied a design process grounded on a defined itinerary:

Taken at a basic level the promenade, refers, of course, to the experience of walking through a building. Taken at a deeper level [...], it refers to the complex web of ideas that underpins his work (Samuel, 2010, p. 9)

Furthermore, Le Corbusier explained the significance of the mutual correlation of the built form and the end-user, stating that:

We are able to get [...] beyond the cruder sensations; certain relationships are thus born which work upon our perceptions and put us into a state of satisfaction (in consonance with the laws of the universe which govern us and to which all our acts are subjected) [...] can employ fully his gifts of memory, of analysis, of reasoning and of creation (Le Corbusier, 1924, p. 21).

Additionally, Tschumi (1977, 1994) argued about two distinct realms of architecture, once as a product of the mind with its conceptual feature and the other that refers to the experiential and practical aspects. The simultaneous emphasis on integrating these two realms should further enable the complete comprehension of the architectural work. He explained that the architecture of pleasure as:

The pleasure of space: This cannot be put into words, it is unspoken. Approximately: it is a form of experience - the 'presence of absence'; exhilarating differences between the plane and the cavern, between the street and your living room; symmetries and dissymmetries emphasizing the spatial properties of my body: right and left, up and down... The pleasure of geometry and, by extension, the pleasure of order - that is, the pleasure of concepts (Tschumi, 1994, p. 84).

Scruton (2013) analyzed the analogy between imaginative and 'literal,' or the structure and the content of aesthetic experience while explaining it through several precedents. He imposed that the design needs to reflect upon a unified concept where the experience postulates integrity but further naturally differs depending on individual tastes. He stated: "So long as it is possible to attend to the object under a unified conception, so will the experience which expresses that conception retain its integrity" (2013, p. 102).

This chapter aims to question two conceptual approaches concentrating on the correlation of architectural design and the user experience, outlined with the demonstration of a modern and contemporary precedent. Contrary to the space-experience notation (Thiel 1961), the methodological part will consist of several determinants of architectural form as an analytical tool in assessing the underlying design intention. Precisely, these comprehensive determinants refer to the relationship between the building design and the environment, its function, the region, climate, landscape, natural lighting, its materiality, psychological demands, and spirit of times, and enable a better understanding of the formal qualities of the proposed design approaches (Rudolph 1956). This theoretical study aims to argue the role of aesthetic experience as the essence of architectural creation and a determinant of future design approaches.

1.1 *The primacy of aesthetic experience*

Contemporary architecture serves as an encounter of diverse experiences that evolve with current necessities and requirements. The aesthetic experience of a built work (Birkhoff 1933, Rasmussen 1962, Mitias 1999, Carlson 2000, Arnold and Ballantyne 2004, Iseminger 2003, Goldman 2006, Scruton 2013, Pallasmaa 2018) exists in the correlation between the building design and its users, but it also establishes the core of the design considerations. Determined by the qualities of the architectural form and the meticulous architectural promenade, it carries a description that explains the meaning and value it intends to convey. It is the underlying intention of the proposed

conceptual approaches but also a means of enabling a better understanding of our environment:

Aesthetic experience is intentional, focused on its object, and aimed first at understanding and appreciation, at taking in the aesthetic properties of the object. The object itself is valuable for providing an experience that could only be experienced with that object (Goldman, 2006, p. 339).

Starting from the premise that a space evolves of two different possibilities either as a continuing sequence of an experience or its alienation, this chapter explores two conceptual design approaches considering the correlation between the architectural object and the user where the architectural experience represents the core of the design intention.

Particularly, this article will explore an analogy in how this correlation of the building towards the user is established in terms of several modern and contemporary emblematic examples that depict the concept of unity and estrangement. Those opposing views relate to the architectural experience and indicate the necessity to consider all qualities and preconditions of the environment in designing. Both concepts encapsulate the notion of experience in its essence while enabling encounters of diverse spatial qualities.

2 DELINEATION OF A CONCEPTUAL DESIGN

The necessity for an architecture dedicated to the temporality and variability of human needs is a crucial discussion in the architectural realm. Several emblematic modernist projects were analyzed in which the concern of architectural aesthetic experience was re-emphasized throughout the design. Barid (1969) analyzed two architectural examples, the CBS building by Eero Saarinen and the Thinkbelt from Cedric Price that deal with human experience by interlocking architecture with its users. He declared that "architecture occupies its place in human experience through some kind of communication" (Barid 1969, p. 79). Barid (1969) further stressed the capacity of architecture conditioned by human activity to determine and enhance the individual experience of the environment completely. He reinstated that these examples put architecture in the focus of human experience due to their organizational and conceptual features aimed to adapt to different future scenarios.

Pawley (1969) proposed the concept of The Time House, which represented an architectural portrayal of time-dependent and transformational experience. While proposing future tendencies of the necessity of architecture to adapt to diverse demands, he examined the mutual bond between architecture and behavioral concerns. He even stated, "[t]he Time House itself is intended to absorb the object-evidence

of experience: to listen, see, smell, touch remember and replay” (Pawley, 1969, p. 144). The Time House residential building aimed to question the possibility of architectural space to transform and adapt to the user, performing as a mechanical device and extending the capacity of an architectural space.

2.1 Concept of estrangement

The concept of estrangement or defamiliarization (Shklovsky 1990, Erlich 1981, Hildner 1996) indicates creating an architectural work that alienates from the surrounding with its own rules and design logic while establishing a certain degree of autonomy and a heightened aesthetic experience. In architecture, it represents the reinvention of a typology or establishing a new and unfamiliar identity for a specific architectural work. Furthermore, it implies the encounter of an unexpected experience that is achieved through the existence of a radical and visionary design approach.

The Museum of Art São Paulo, designed by Lina Bo Bardi, represents an architectural estrangement with a clear underlying design intended to provide a remarkable collective social place. The duality of the architectural role is achieved through the division of the building design into an underground and suspended area while extending the public space into an open collective podium. This defamiliarization of the museum typology into an architectural object that concentrates on the notion of collective public space and proposes a diversity of architectural experiences is depicted in the drawings of Lina Bo Bardi, where the focus is rather on the collective activities than on the building itself.

The Chichu Art Museum, designed by Tadao Ando in Naoshima, denotes a unique contemporary museum design that depicts the concept of estrangement in different levels (Table 1). Firstly, the building design is entirely developed underground, eliminating any exterior elements that are conventional in a building design approach. Secondly, from the experiential point of view, it enables a unique museum experience. This architectural experience is created by the diversity of the architectural composition with distinct spatial qualities that emerged out of the collaborative action between architects and artists. The building denotes establishing a bond between the architecture, arts, and nature and recreating a specific architectural promenade with the capacity of the architectural form (Figure 1). Thirdly, the building design reinvents the museum typology, recreating a unique architectural design that does not follow any convention and is based on the necessity to engage with and capture the user’s attention. These manifolds of levels of building complexity are further analyzed in terms of six determinants that reinforce the underlying design intention.

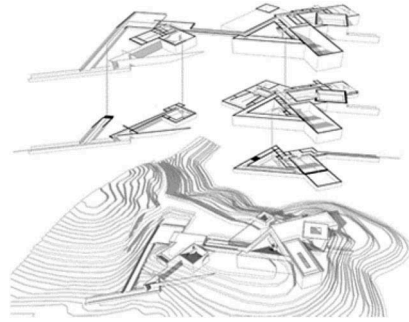
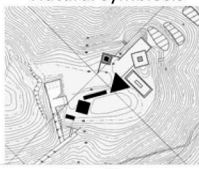
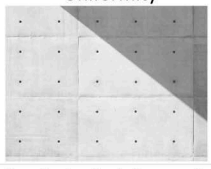
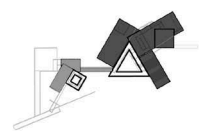


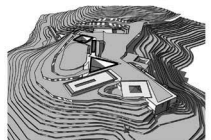


Figure 1. Architectural promenade – scheme, Tadao Ando, Chichu Art Museum, Naoshima, Japan 2004.

Table 1. Design evaluation - Six determinants of architectural form, Tadao Ando, Chichu Art Museum, Naoshima, Japan 2004.

Design characteristics	
Environment	Materiality
Underground Natural symbiosis	Simplicity Uniformity
	
Function	Psychological demands
Site-specific Diversity	Darkness vs. light Experiential richness
	
Region - climate	Spirit of times
All-inclusive Natural symbiosis	Nature vs. edifice Substantiality
	

The environment of the building: Positioned on Naoshima Island in Japan, the museum design integrates into the natural scenery entirely developing in the underground. This correlation between the building and the environment implies its main idea of a site-specific structure with minimal impact on the environment. It establishes

a strong connection with the existing environmental conditions offering a diversity of architectural experience. The entrance placed on the ground level directs visitors towards several spaces dispersed in the underground mesh, while the open courtyards offering a variety of lighting conditions are the only visible elements in the landscape. The building design abolishes any exterior element and is completely submerged in the ground, creating a symbiotic bond with nature.

Function: The museum design relates to the program and theme of the exhibits. Each freely arranged museum space results from a design solution that reinforces the exhibition's specific theme. The program evolved out of close cooperation between several disciplines, primarily depicting the artistic work into an architectural space that enables a unique architectural experience. This unique architectural experience imbued the building design and influenced the creation of a free floor plan where individual rooms are dedicated to a specific artist. Three distinct exhibition spaces and two courtyards, connected through underground corridors, whereas each space has different formal and lighting conditions, serve as a counterpoint in the architectural experience.

Region - climate – landscape – natural lighting: The rather dispersed program establishes a minimal impact on the environment, puncturing in several places the natural landscape and offering diverse experiences. This rather unique design embraces all qualities of nature, capturing different spatial sequences with views toward the sky or the natural landscape in each room. This harmony and appreciation of nature remained an impetus in the design considerations, where the building design prioritizes the impact of nature and creates a unique synergy with it. Developing the building in the underground has its origin in minimizing its impact and using the natural resources in favor of construction, consumption, and experience.

Materiality: Material simplicity and uniformity of the concrete structure accentuate the spatial qualities of the distorted walls. Nature embraced in the internal courtyards dramatizes the path leading towards each space, while the existence of precisely defined but minimal details in correlation to pure concrete reinforces this architectural experience and the uniqueness of individual spaces. Slight exceptions are made inside the main exhibition spaces joining an additional themed material or color to harmonize the spaces to the curated exhibits and the natural lighting conditions. This architectural path clearly unfolds the nature of the material, its texture, color, and character, which imposes the specificity of the experience between darkness and light.

Psychological demands: The way people perceive, move, or engage in a museum was the main factor considering the building plan with its diverse spatial

and formal qualities. A meticulous architectural promenade, entering from only a visible, covered entrance into a freely composed corridor, leads towards unique exhibition spaces and courtyards that enhance this architectural experience. Specific spatial qualities denote each exhibition space in terms of the arrangement of architectural elements, its formal qualities, lighting conditions, materials, colors, and textures which determine the architectural experience. The continuity of this architectural promenade is interrupted in specific points that frame unexpected encounters with the artistic work and establish a dynamic experience.

Spirit of times: The architectural metaphor of the correlation between nature, edifice, and arts is submerged into this building design which puts the experience as its essence. It denotes a building design where the primordial value of light and nature in human existence is strengthened in the architectural composition. This structure is composed out of carving out the natural landscape with several primal geometric spaces. The composition refers to the basic elements of architecture and appreciation of nature while having no references to any construction period or typology. It offers a unique experience that emerged from the symbiosis between nature and architecture while putting the visitor as the main design impetus.

2.2 Concept of unity

The concept of unity denotes an aesthetic concept that in architectural design represents the attempt to unify the object with its environment and the structure of the building in terms of the existence of a continuous space or the development of an observer's path into a coherent experience. Unity and unity in diversity are commonly used in describing the design intentions or the depiction of the qualities of architectural work and refer to a concept of aesthetic experience (Lipps 1905, Otis 1918, Parker 1920, Beardsley 1958, Stamp 1975, Lord 1978).

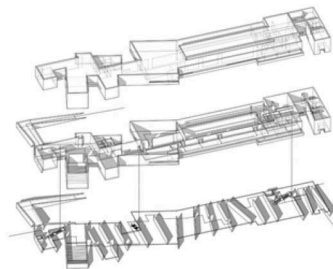

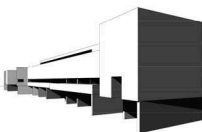
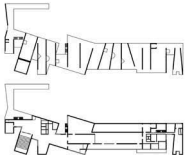
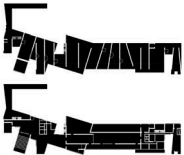




Figure 2. Architectural promenade – scheme, Alvaro Siza, Nadir Afonso Contemporary Art Museum, Chaves, Portugal 2015.

National Museum of Western Art in Tokyo is one of the built examples of the theoretical exploration and project developed in 1931 by Le Corbusier and Pierre Jeanneret titled “Museum of Unlimited Growth.” This museum project was one of the revolutionary ideas of Le Corbusier, who imagined the continuous growth of the building dependent on the user’s needs (Colomina, 2019). The labyrinth-like exhibition space suspended above the ground on pillars can gradually extend on the outside perimeter. The National Museum of Western Art building design depicts a revolutionary idea where the spatial richness is achieved through the continuous architectural promenade, from the free column grid plan with double-height spaces that emphasize the enclosure walls to the continuous gallery space on the first floor. The linear exhibition space resembles an elevated cubic volume, approached by a central ramp into a labyrinth-guided observer’s path, which shape is further accentuated with roof lighting.

Nadir Afonso Contemporary Art Museum, designed by Alvaro Siza, represents contemporary examples of museum buildings that denote unity in several considerations (Table 2). Firstly, it depicts the correlation between the urban fabric and the Tâmega river in Chaves, extending and mediating the limit of the urban fabric towards an archaeological site and green landscape. Secondly, it enables a unified architectural promenade inside and outside the building while proposing two distinct architectural experiences (Figure 2). One concerns the building spatial sequences from the entrance to the exhibition spaces and finally towards the atelier, while the second concerns the continuity of a public covered promenade that evolved from the free playful arrangement of the structural sheets. They amplify the difference between the building and nature and metaphorically represent a homage to the work of Nadir Afonso. The complexity of this architectural work is analyzed in terms of the building design correlation towards individual determinants of architectural form and depicts the consideration of the design approach in reshaping the environment.

Table 2. Design analysis - Six determinants of architectural form, Alvaro Siza, Nadir Afonso Contemporary Art Museum, Chaves, Portugal 2015.

Design characteristics	
Environment	Materiality
Elevated structure Preservation 	Differentiation Simplicity 
Function	Psychological demands
Horizontal vs. vertical Continuous spaces 	Diversity Continuity 
Region - climate	Spirit of times
Diversity Continuity 	Superimposition Contradiction 

The environment of the building: The longitudinal project site parallel to the river, placed in-between several infrastructural projects and archaeological remains determined the museum design. The suspended single-floor building volume is raised on diverse structural sheets that are perpendicular to the river. They provide the continuity of the existing landscape and establish a playful covered public space. They also serve as protection from possible flooding. The entrance to the building is established through a slight slope that leads to the foyer on the first floor and connects the height differences. The playful arrangement of the architectural composition of the pilotis is emphasized through their direction and position and its figurative shifts and unique geometric portals.

Function: The building design is divided into three vertically and horizontally distinct areas. Regarding vertical layering, there is a distinction between the underground area, the free floor plan with diverse walls perpendicular to the building form, and the first-floor level of the suspended exhibition area. The horizontal division is made between different functional groups, which are also depicted in the building design. The western part of the building consists of the foyer, lobby, auditorium, cafeteria arranged into a free composition of independent volumes or four rooms. The middle part consists of the exhibition area, precisely three longitudinal areas devoted to the permanent and temporary exhibition with different light sources. The eastern part of the building is devoted to education, archival facilities, and administration.

Region - climate – landscape – natural lighting: Placed on an empty strip between the city and the

river, the museum design creates a new public area on the river margin. Its rectangular shape, parallel to the river, establishes a contrasting effect on the green environment. This historically important site remained untouched due to periodical flooding and imposed the continuity of the green area. This constraint implied lifting the building volume above the green area while simultaneously enabling a green roof and establishing a clear connection to the river and the archaeological remains. The exhibition spaces offer a variety of natural lighting conditions, or through continuous zenithal lighting, or a continuous horizontal strip that frames the view towards the river.

Materiality: The uniformity and homogeneity of the material consolidate the complexity of the architectural composition. It further represents a contrast between the green area and the remaining archaeological site, which juxtaposes with the solid concrete walls. A small difference of materials is made in terms of the treatment of architectural elements, as the ramps, staircases, railings of the outside area, or the interior floors and window frames. Those differences are unified using light grey elements that reinforce the color and texture of the concrete walls and extend the museum path longitudinally. The floor contrasts the white interior with a distinct material of a wooden floor and harmonizes the structure with the interior elements.

Psychological demands: The architectural promenade through the museum frames a continuous movement through diverse public spaces with distinct characters, qualities, and lighting conditions. The entrance from the slight slope extends this promenade to the exhibition spaces. From the conceptual sketches, the building depicts a human body that stretches from the library (the head) to the auditorium (feet). The secondary promenade extends through the playful and geometrically diverse permeability of the wall sheets, which recreate a covered garden. These two promenades have the same logic of offering a transition of spatial sequences inside and outside the building, one completely extroverted and the other introverted.

Spirit of times: The museum integrates a superimposition of several architectural layers achieved in the mediation of the building design towards the landscape, the archaeological area, and its elements. Additional qualities emphasize the existence of a spatial void between different parts and connections. Firstly, the geometrical punctures in the wall sheets and the structural grid represent a depiction of the abstraction of the work of Nadir Afonso and the nearby Roman bridge. Secondly, the continuous green area with different qualities mediates the building with the existing remains and the landscape. The architectural structures contradict each other, but they also create a unified structure of independent elements that reinforce

their presence with the existence of a void space in-between.

3 CONCLUSION

Contemporary architectural case studies of opposing conceptual approaches of estrangement and unity designate that these concepts embody the notion of aesthetic experience as a design impetus. The concept of estrangement indicates an alienated architectural promenade and the redefinition of the typology through an additional value. The duality of public vs. private, museum vs. square, inside vs. outside defines the uniqueness of architectural experience and recreates a new image of the city. This architectural concept represents a radical design approach, an encounter in the urban fabric that attracts and determines human activity. The case studies embody the uniqueness of the architectural experience, structural invention, and alienation towards the environment while considering the uniqueness of the architectural promenade as an important determinant. The building designs not only refer to the specific functional requirements but indicate a combination of several typologies.

Contrary, the concept of unity portrays the continuity of the experiential sequences. It embodies the extension of the urban structure into a complex building design that enhances the continuity from nature to structure, from inside to outside, providing a unified promenade of shifting architectural sequences. This fusion between the inside and outside, private and public, is retained in the whole design logic. Furthermore, it indicates the necessity for a repetition of a structural element and its free arrangement that enhances the diversity of the organic composition. It implies void intervals between different spaces on the boundary between inside vs. outside, public vs. private, ground vs. the first floor that enhances the possibility of a flexible arrangement, extension and simultaneously enhances and blends the existing differences.

Even though these conceptual approaches refer to the user's experience in opposite manners, they imbue the architectural work with experiential qualities while strongly correlating to the environment. The analyzed case studies are certainly characterized by the active participation of the users and an empathic approach in the design process. They direct and guide the visitor into a meticulous architectural promenade which amplifies the bond between architecture and user. Their differences rely not only on the analogy to the environment but also indicate that the concept of estrangement emphasizes the juxtaposition of experiential itinerary while unity retains the same logic throughout the building.

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Tectonics: Reconciling reason and emotion in the architectural project

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ABSTRACT: *Reason and Emotion* are concepts that the 17th-century philosophy separated, opposing them. Recent research has put that antagonism into question, demonstrating that every rational expression is based on emotions. Therefore, these are not opposed concepts; they work together. Architecture is a discipline where this interdependence has always been present.

Tectonics is a concept resulting from a long doctrinal search on the relationship between the functional side of architecture and its philosophical and aesthetic sense. In other words, it focuses on the duality between construction and expression, aiming to apprehend the correlation between both the rational and the emotional sides of the architectural object. To that extent, it is a concept intrinsic to every creative undertaking, inducing a culture that refuses the uncritical adoption of previous models in favor of a project that integrates all the elements specific to its own circumstances. Elements that vary according to different factors, such as topography, climate, available materials, construction techniques, and the relevance given by the author to each one of them. *Tectonics'* role is to structure all those elements, defining the relationship between reason and emotion and how it is expressed.

Keywords: Reason, Emotion, Tectonics, Architectural project

1 REASON VS. EMOTION

In everyday language, any good dictionary will tell us that the term *mind* refers to the brain in its intellectual function and has synonyms like intelligence, spirit, or reason, but also intention, plan, idea, imagination, and conception (Porto Editora, 2012). From the etymological point of view, the term comes from Latin, *mens*. The Greeks, in turn, used the term *nous*, meaning reason, thought, or intuition. Therefore, *reason* and *mind* seem to be synonyms or, at least, can be used with the same sense. As for *emotion*, it means the psychic and physical reaction (pleasant or unpleasant) in facing a particular circumstance or object, sometimes translated into physiological changes, namely the breathing rhythm, blood circulation (Porto Editora, 2012).

For what matters here, we think that the above-mentioned common notions are appropriate to the needs of the present paper on an architectural topic. Those notions of *reason* and *emotion* will thus be the conceptual dichotomy considered in the text. It should be said, however, that this simple approach is somehow superficial and certainly very misleading. In fact, *mind* and *emotion* are complex concepts, allowing for multiple interpretations, depending on the areas of knowledge considered. Moreover, they refer to other no less complex notions, such as *cognition*, *consciousness*, *feeling*, or *sensation*. Currently,

this matter is the subject of several approaches, resulting in different and not always concordant theoretical proposals. The multidisciplinary nature of the Congress is therefore very much appropriate.

Where there is little or no controversy at all, thanks to the most recent scientific researches, namely in the fields of philosophy and neurosciences, is about the statement that all rational expression is based on emotions (“emotion is an integral component of the machinery of reason” [A. R. Damasio, 1994]). A postulate that puts into question the old dominant Cartesian thesis, according to which reason and emotions are entirely separate or even opposed brain domains, the rational excluding the emotional, by definition.

In fact, Philosophy has been, for centuries, the discipline that studied and “decided” the relationship between *reason* and *emotion*. Aristotle and Hippocrates correlate them with each other; later on, Descartes and Kant (among others) consider them autonomous or even opposite. This has been a long-adopted position based on the dual vision about the relationship between physics and conscientiousness, body and soul. As said by John Searle, the “mind-body problem is a problem about how conscientiousness relates to the brain” (Searle, 2002).

In *The Rediscovery of the Mind* (2002), Searle is arguing that “conscientiousness is caused by the physical processes of the brain,” the dualist thesis being

totally wrong, and he is defending that thesis ever since. Meanwhile, deep neuroscientific researches, such as that developed by António Damásio¹, confirmed that longstanding error and brought reason and emotion together again: “emotion is an integral component of the machinery of reason” (Damasio, 1994, p. 14).

From the perspective of architecture, it is difficult not to conclude that, in terms of the theoretical elaboration on the said concepts, the discipline mainly depends on the work developed in the other mentioned areas. It is, however, a domain in which the correlation between reason and emotion is intuitive. It has been present since time immemorial: primitive man retreats into caves for protection (a rational action), covering the respective walls with paintings of animals and hunting scenes, thus expressing emotions of his own and certainly inducing others’ emotions too; when deciding on the construction of the first hut, his plan obeys first to the need to guarantee the primordial utility of the cave (shelter), but he obviously does not neglect the organization of space and materials according to forms that go well beyond the merely practical initial interest, namely the search for an organized, pleasant and comfortable environment (*primitive hut*). In addition to primary emotions, architecture quickly had to deal with more complex ones, such as those coming from the relation to authority (political or religious powers) or just from mere personal (or social) artistic taste. The notion of *style* then emerges to assume a central role in classical civilizations’ architecture and lasts until nowadays (eventually with other names - i.e., movement). Initially incipient, the project gradually takes on a fundamental role in the design and construction of the architectural object. Within the project, the designer decides the concrete way in which its various elements are interrelated. Therefore, there is not much risk to say that, in architecture, the interconnection between reason and emotion is inevitable and permanent. Hence, the most immediate interest of the question is not to demonstrate it but relies on verifying how those concepts are handled and the proportions they assume, intentionally or not, in the creative process (the project).

In fact, when using the term “creating,” there is no doubt that the Congress organizers intend to

center the debate on the creative process. In architecture, this leads directly to the project. It is necessarily there that the two mentioned concepts create a dialogue, and it is how they do so that defines the outcome; all the elements to be considered in the project (purpose, environment, materials, construction techniques, etc.) are to be dealt with by both reason and emotion and it is the overall coherence between them that defines the identity of the architectural object. *Tectonics* is the indispensable tool to achieve the said coherence.

We have recently devoted a great deal of research to this concept, which is also a dense and complex one. For the purpose of this chapter, what interests us is the analysis and understanding of the said tectonic concept, in the light of the unavoidable interconnection between reason and emotion, considering that the emotional element precedes the rational and both necessarily give rise to emotions. Therefore, they are not opposed to each other, they collaborate in the brain process and, although emotions have an expanded role in this process, it is possible to enhance their positive effects and reduce the negative ones. An idea that a decade after his Descartes’ Error first edition, Damásio felt the need to reaffirm, stating that emotion is not a substitute for reason and that its mandatory presence in the reasoning process can be advantageous or nefarious, according to the circumstances of the decision and the history of the decision maker (Damasio, 2012). A thought whose usefulness in the architectural creative process can only be highlighted.

2 TECTONICS

2.1 Presentation

The concept of *Tectonics* has emerged in German theoretical production at the end of the 18th century, in a transition environment (economic, technical, philosophical, and aesthetic) towards modernity. More specifically, it is part of a doctrinal effort to understand the essence of the architectural object.

After having been largely consolidated during the first half of the 19th century by the German intelligentsia, particularly Karl Böticher (1806-1889) and Gottfried Semper (1803-1879), it would later fall into disuse for almost a century. What was no longer used was just the term Tectonics, since the Modern Movement, although not expressly referring to it as a concept, fully assumed its main principles. From a purely theoretical point of view, however, it is only in the context of postmodernity that the concept has been the subject of a doctrinal interest again, namely through the writings of Peter Collins (1920-1981) and Eduard Sekler (1920-2017). The second half of the twentieth century marks a renewed interest in the subject, emerging then important authors like

1. António Damásio is a Portuguese neuroscientist based in the United States, whose works on the human brain and emotions are internationally recognized. On his own or in tandem with his wife Hanna, who is also a researcher in the same field, but with her own approach (neuroimaging), he wrote several works on neuroscience. Descartes’ Error - Emotion, Reason and the Human Brain was the first and most famous one; placing emotions at the center of human rationality, it constitutes a break with philosophical postulates consolidated for centuries, among which the Cartesian dualism *cogito ergo sum* (I think therefore I am).

Vittorio Gregotti (1927-2020) or Marco Frascari (1945-2013) and, above all, Kenneth Frampton (1930).

Taken as a whole, this theoretical work has built a significant corpus of knowledge, constantly referring to the 19th-century texts and authors, who can, therefore, be considered as the actual primary sources of the most modern theory of Tectonics. Names like Aloys Hirt (1759-1873), Karl Friedrich Schinkel (1781-1841), Heinrich Hübsch (1795-1863), Bötticher or Semper, are theorists that contributed to stay in a continuity line for the concept's consolidation process. Starting from the refusal of the rigidity of the old treatise order (still prevailing in the 18th century), they work the relationship between form, construction, and character, in a new perspective: freer and more consistent with the new needs arising from social progress and with the new methods and materials provided by modern technical progress. From the point of view of the creative process, their fundamental theoretical contribution is a clear refusal of the uncritical adoption of past models, promoted by Renaissance ideals and exacerbated during the Baroque, in favor of an architecture based on a program (project) integrating all the relevant elements, including construction materials and techniques.

Based on the *Tectonics*' concept, this integrating perspective of the project was absorbed by practice immediately after the Baroque: first by the initiative of various revivalist (or historical) movements to try this exercise, still not abandoning references to classic models, but reinterpreting them in the light of a post-Enlightenment contemporaneity, full of new social and technological developments; and later followed by the Modern Movement, in its contemporaneity.

The Modern Movement emerged in the late 1800s as a reaction to revivalist architecture, which had become fashionable, but could no longer satisfy the new demand, neither regarding taste nor the volume of new needs. As for taste, formerly more oriented towards representation and mainly requested by institutional or aristocratic consumers, it shifted to be more functional and consistent with the new way of life resulting from the consolidation of the capitalist process of production/consumption. As for demand, needs had grown exponentially, not only because new social strata profited from industrial development but also because of the resulting social and urban concentration. On the supply side, technical development opened the door to mass production, broadened the field of architectural intervention to new areas, such as the construction of bridges and factories, inducing the emergence of new structural technologies (and, therefore, approaching other areas of knowledge such as Engineering) which became fully integrated into the architectural process.

The Modern Movement, as mentioned earlier, does not use the term Tectonics but adopts its basic principles consolidated in the 19th century. The

doctrinal elaboration it produces on the project's purpose, the truth of materials, the expressiveness of the structural element or the function of ornament shapes the Movement itself and is a decisive contribution for its massive spreading in western architecture panorama².

Again, some exaggeration in the affirmation of its postulates (one of which can be summed up in Loos's bombastic text, *Ornament and crime* [Loos, 1970 [1908]]) dictated its decline. Times changed and, as the Movement itself did in its beginning, new proposals emerged once again, demonstrating the constant need for readaptation in architecture and the well-founded of refusing the uncritical adoption of past models, in favor of a process integrating all the relevant elements at play (the project).

Indeed, Postmodernism was born as a reaction to an architecture considered inexpressive, repetitive, aseptic, uninhabitable, and sacrifices character to a path of easiness (commercial or technical). Relevant authors³ realized the somehow descending slope the Modern Movement was going through and tried to return to the principles' purity. However, they have been overtaken by another group of authors' proposals⁴, based on a renewed reflection on the concept of *Tectonics*. Revisiting the 19th-century doctrines, they set up a critical analysis of the architecture produced by the Modern Movement, updating and reconsolidating the concept of *Tectonics*. Innovatively, they highlighted the role of construction aspects in forging the building's character from the beginning of the project conception. *Tectonics* is what reveals character and defines a given architecture. In the remarkable synthesis made by Sekler (1965), it is the significant act that makes the elements of the project visible and expressive through the selection of materials and building techniques that contribute to a specific visual expression.

Therefore, *Tectonics* imposes itself on the architect, as it is an intrinsic part of his design process. More than a concept, it is a design culture. That is why, in our perspective, when analyzing built or merely designed architectural objects, Sekler's definition makes sense, because *Tectonics* not only qualifies the architectural object but also is a means to understand the author's intentionality, established throughout the process, and materialized in the Project *in abstracto*⁵.

2. Authors like Henry Van de Velde (1863-1957), Adolf Loos (1870-1933), Frank Lloyd Wright (1867-1959), Hans Poelzig (1869-1936), Ludwig Mies van der Rohe (1886-1969), or Le Corbusier (1887-1965) are particularly relevant.

3. Among them Mies, Marcel Breuer (1902-1981), Friedensreich Hundertwasser (1928-2000) or Reinhard Gieselmann (1925) and Oswald Mathias Ungers (1926-2007).

4. Names like Collins, Sekler, and Frampton, but also Frascari or Gregotti.

5. Regardless of the physical realization.

2.2 Etymology

When trying to explain the term Tectonics, usually the specialized literature starts with reference to etymology. However, because, in our opinion, this is not the most interesting perspective to clarify the concept, we will limit ourselves to the essentials.

In the classical Greek language, the word *tekton* designates the artisan builder using wood; the craft designating the *tekton's* activity is called *tektonike* (Frampton, 1995, p. 3). Naturally, the two terms would end up being used in the same sense, even when the materials concerned were other than wood. *Techné* is the intelligent ability that the *tekton* is supposed to hold and use in the creative act to be executed for a predefined purpose⁶. Thus, an ontological element⁷ and a technical element concur to the same objective. In architecture, understanding the relationships between these two elements became less evident since materials and construction methods took a decisive role in the process. The search for a theoretical solution to this difficulty will lead to the concept of *Tectonics*.

According to Frampton, the term *tectonic* appears for the first time in the English lexicon in the middle of the 17th century to designate something “belonging to construction” (Frampton, 1995, p. 3). It is, however, only in German literature from the beginning of the 19th century that the term (*tektonik*) gets doctrinal strength. Karl Müller (1847 [1830]) first used it to mention the combination that occurs in architecture between the utilitarian side of objects and places and the feelings (e.g., artistic) that they raise.

Since its origin, therefore, the term Tectonics contains the idea of duality between construction and expression that contribute to the same end: the materialization of the architectural object.

2.3 A concept of tectonic genesis

Beginning with Müller, it is in the territories that constitute today's Germany that the theoretical elaboration on the concept of *Tectonics* takes place. Various historical circumstances can explain this: firstly, those regions are where Reformation began, as well as the philosophical, aesthetic, and religious polemics that it created, giving rise to Rome's Counter-Reformation⁸; secondly, they started a political affirmation process before other more developed European regions, and architecture could be a manifestation of that change; finally, they felt the urge (most strongly there) to find

solutions to transition from a world dominated by the Baroque influence towards another more aligned with the technological and industrial development. In these regions, the theoretical elaboration on related areas such as Philosophy or Aesthetics was more intense, and, naturally, the doctrine expressed itself with greater intensity also in architecture.

Being an area where the significant changes brought about by technological advances (both in materials and construction methods) always have a great deal of impact, architecture was looking for answers that the Baroque obviously could no longer give from the aesthetic point of view and in terms of adapting to a growing demand for new housing and industry and services facilities.

In the perspective of the transition to the emerging world, the ontological and technical duality present in the concept of *Tectonics* seems the appropriate answer to the search for a balanced relationship between the needs of physical well-being and the intellectual satisfaction that architecture should always provide. In addition, it is also a return to the origins of the term and to the concept itself.

The principles of Hellenic architecture as a solid reference for developing a new architecture are those preferred by the German intelligentsia of the 1800s⁹. This line of thought is affirmed by the defense of a rational design methodology based on rules (treatise), the use of pre-validated solutions (types), and the idea that, in the creative process, the artistic act is defined before the construction of the artwork (inside the project)¹⁰. Alois Hirt is a great defender of this idea and applies it to analyzing the composition principles of the architecture of classical Hellenic antiquity, where he finds values such as formal and material simplicity, proportion, rhythm, harmony, and moderate ornament (Hirt, 1809).

As the defense of the “true” character of Doric architecture (*Paestum style*) is being consolidated, the strict orders imposed by the treatise (Scamozza, Vignola, and Palladio) lose weight in favor of an approach where the function of the architectural object comes to dominate the design. Despite defending the Paestum style, Friedrich Weinbrenner (1766-1826) also opposes the complete imitation of antiquity, considering that function contributes to the true character of architecture (Brownlee, 1986).

Spatial distribution, construction (proportion), and ornament (character) become subordinated to the concept of utility/purpose. The search focuses on creating a functional architecture that competes in beauty with the “major arts.” Schinkel's intellectual trajectory¹¹ is

6. Heidegger calls it *knowledge* (1977, pp. 3–35), in the sense that it can reveal what is still only latent. This revelation occurs through the application of specific techniques, made available by technology.

7. In the sense of *reason for being*.

8. Counter-Reformation is not just a movement opposed to the Reformation. It is also a movement for the self-renewal of the Church of Rome and corresponding sectors, under pressure from Lutheranism and its derivative movements.

9. Supported by Winckelmann's conviction that Hellenic art is the one that best represents the ideal nature.

10. Until then, architects and builders were one, and the creation evolved at the pace of construction.

11. Writings dispersed in various formats, including the incomplete *Das Architektonisches Lehrbuch* (Architecture Manual), published in 1979 (Schinkel & Peschken).

at the summit of this dualism between aesthetics and function (between art and construction), in which the artistic value is based on an ideal of purpose (Schinkel & Peschken, 1979).

Hübsch not only paves the way for an intense discussion about a new style in architecture (suitable to those times) but also defines the theoretical foundations of a notion of Style that refuses any uncritical return to past (classical) models, and that is based on the union between project (program, climate, forms) and construction (materials and techniques), thus pre-announcing the concept of Tectonic culture (Hübsch, 1992 [1928]).

Müller highlights a series of characteristics such as utility, materiality, simplicity, and formal robustness that fit the concept of *Tectonics*, in addition to reflecting on the importance of applied arts (*tectonics*) and, above all, that of architecture (*architectonics* – which he incidentally considers to be the main applied art (Müller, 1847 [1830]).

Bötticher definitively ties the notion of Tectonics with the activity of designing a building by making a distinction between, on the one hand, the functional needs and the forces involved in construction (*werkform*), which he considers the essence of architecture and, on the other hand, the artistic ornament (*kunstform*), which he subordinates to the first one and has the role of mediating the dialogue between the built and culture: between ontology and representation (Bötticher, 1852).

Semper, although close to Bötticher, structures his thought from pre-architectural references (drawn from ethnography), in which he finds a set of elements that he considers fundamental for the creation of a functional, material, and symbolic architectural space (Semper, 1989 [1851]), thus building a new project methodology based on four primeval elements: *hearth (herd)*, *roof (dach)*, *enclosure (gehege)*, and *mound (erde)*. These are, of course, conceptual references and not physical architectural elements. Their combination is adaptive because it varies according to the local environment, namely: climate, available materials, and socio-cultural relations.

3 THE MODERN MOVEMENT CONTRIBUTION

Although the term Tectonics has fallen into disuse with the advent of the Modern Movement, the basic principles of this concept (functionality, truth, ornamental parsimony) have structured the thinking of its main players. The appropriations they have made increased the theoretical lexicon of *Tectonics*. Let us review some of them to exemplify: Henry Van de Velde (Haddad, 2003) takes position on the role of ornament in architecture, arguing that the process of abstraction of a work of art cannot be an end in itself, but must stream from the natural development

of the project (organic); Adolf Loos (1970 [1908], 1982 [1898]) fights against the dominance of an architecture subject to gratuitous ornament¹² and the fallacious use of falsified cladding materials (*law of cladding*¹³); Hans Poelzig (1970 [1906]) warns to the need for the transition to a new tectonic architecture to be carried out smoothly and based on past experience, and he also highlights the importance of structure in architecture implying, namely, to collaborate with Engineering and to try new structural solutions that benefit from modern materials; Filippo Tommaso Marinetti and Antonio Sant'Elia (1970 [1910]) stand against anachronism in architecture, arguing that priority is to be given to building purpose, materials, technology and rationality of modern times; Frank Lloyd Wright (1970 [1910]) advocates an organic architecture, adapted to the needs of modernity and endowed with a free flow spatiality obtained by a greater interrelation between the various parts that make up the whole; Le Corbusier (1970 [1920]) calls for the rapprochement between references to the past (which he considers to be the role of the architect) and a look at the future (role that he attributes to the Engineer), believing that architecture should be thought as a way to enhance emotions through materiality, thus having to be designed from the inside out; the De Stijl Movement (van Eesteren, van Doesburg, & Rietveld, 1970 [1923]) stands for the breaking of the architectural barrier between interior and exterior; Ludwig Mies van der Rohe (1970 [1923]) defends a project methodology based on rational functionalism (organization, intelligibility and economy), contemporary materiality (concrete, steel and glass), in the dissociation between non-structural envelope and bearing-frame (skin and bones), and in the exploration of the maximum expressive potential with as few resources as possible; Le Corbusier and Pierre Jeanneret (1970 [1927]) lay the syntactic foundations on which the majority of the Modern Movement's architectural production will rely on afterwards (*pilotis*, garden roof, free plan, horizontal window, free facade, and industrial production of building materials); Iakov Chernikov (2010 [1932]) sees the project as an assembly of elements, using a designing method focused on the exploration of the constructive details.

As early as the 1930s, although considering technology and architecture as inseparable elements (representative of a given era), Mies (1970a [1930]) premonitorily warns about the potential damage of excessive mechanization, standardization, and normalization of the processes involved in modern

12. One that does not result from an organic dialogue with the local culture.

13. "We must work in such a way that a confusion of the material clad with its cladding is impossible" (Loos, 1982 [1898]).

architecture. As he had anticipated, the functional, technological and hygienic exacerbation resulting from a vigorous search for efficiency (evident, for example, in Walter Gropius's work) contributed to the gradual dilapidation of the tectonic embedded in the Modern Movements' principles. The predominance was emptying the empathic experience resulting from the revelation of forces at play through an "honest" and expressive construction of technical and economic aspects.

The testimony of this decline is evident in the texts of the following authors: Marcel Breuer (2011 [1934]) states that the New Architecture has been hindered by individualism (erratic choice of the principles to follow) and by the constant search for novelty (commercial value), and also considers necessary to revisit the guiding values of the Modern Movement and ground them in the past-present (continuity); the painter and architect Hundertwasser (1970 [1958]) reacts against the "uninhabitable functionalism of an aseptic utilitarian architecture" and advocates the union between designing, building, and living, which generates character (he calls it *mould*); Reinhard Gieselmann and Oswald Mathias Ungers (1970 [1960]) argue against the unrestrained functionalism that took over the architectural process (mechanical, technical, economic, regulated), homogenizing its forms, and propose the return of the creative spirit and the apprehension of the *genius loci*.

3.1 The postmodernist synthesis

Postmodernity takes up the term Tectonics again and places it at the center of the inseparable relationship between form, construction and artistic expression: Eduard Sekler (1965) defines *Tectonics* as the significant element of architecture, by reference to the visual expression of the forces acting on a *structure* (abstract wise) through *construction* (materiality); Kenneth Frampton (1985 [1983], 1995, 1996 [1990]) gives us, in our view, the most recent and best structured analysis of the concept of *Tectonics*, integrating new themes (such as *detail* and *phenomenological consciousness*) and proposing the concept of *Tectonic Culture*; Vittorio Gregotti (1996 [1983]) and Marco Frascari (1996 [1984]) also deal with the relevance of detail as an element that generates significance; and Gregotti (1996a [1985]) refers to territory, insisting on the need for it to be fully considered as a project element and draws attention to the importance for the architectural object to reveal the poetic truth of the place (*locus*).

4 REASON VS. EMOTION? LET US SAY: TECTONICS

The notion of Tectonics we prefer is based on Sekler's definition: expressive qualities (character,

tectonics) of the architectural scheme resulting from the dialectic dialog between *structure* and *construction*. The structure is the set of systems that intend to solve specific questions (project); it presupposes an intangible (abstract) dimension that can be evaluated in terms of relevance and adequacy. Construction is the materialization of the structure through building materials and techniques. *Tectonics* is the significant act that makes the structural elements visible (communication) and expressive (representation) by selecting building materials and techniques that contribute to a particular visual expression.

For example, the vault system (Romanesque or Gothic) refers to the *structure*, while the choice of materials (stone or solid brick) and masonry dressing techniques (enhanced or disguised joints) refers to *construction*. The expressive quality resulting from the combination of *structure* and *construction* is *tectonics*. If in the Chartres Cathedral the scheme chosen to direct the gravity forces at play were not based on flying buttresses and piers, the interior and exterior architectural expression would undoubtedly be quite different. The same would happen if the stone were not pattern-carved or if monumental stone masonry was to be replaced by a type of masonry belonging to another culture, such as brickwork like the Hannover's Marktkirche.

This starting point is essential for three reasons: first, because Sekler, unlike Bötticher and Semper (his assumed references), forsakes the classic concept of ornament and attributes the expressive function of architecture to *Tectonics*; second, because it unfolds the tectonic act of designing into three elementary parts – abstract (*structure*), material (*construction*) and expressive (*tectonics*) – so clarifying the latter's autonomy to the other two; third, because it suggests that communicating (revealing/hiding) the relationships between the elements that compose the structure is the most important action in the context of a [archi]tectonic culture.

As we believe in having made clear, *Tectonics* is a concept that is present in the essence of the project, even when the architect does not refer to it, either because he does not know it, he does not feel the need to autonomize it, or he refuses it pure and simple. However, it cannot be summarized in any catalog of notions with a defined content since it carries in itself the reason and the result of handling a plurality of elements that contribute to the definition of tangible constructive reality. Elements can be widely variable, depending on the author's creativity, local geography, climate, culture, economy, or the intended use or available materials and techniques. Therefore, more than a concept, *Tectonics* is, above all, a design culture.

As so defined, the concept of *Tectonics*, within which (as has been said) notions such as *character*, *communication*, *empathy*, and *revelation* stand out, integrates with no difficulty the dialectical relationship

between *reason* and *emotion* that is necessarily present in the creative act of design. Before the most recent works, among which are those of Antônio and Hanna Damásio, it went without saying or even being conscious of it. Now, following that research, it has to be assumed consciously. For the Tectonic culture, the knowledge that emotions influence reason and that both are at the origin of new emotions is an enriching element of the concept and the creative process, the project.

In the analysis of architectural objects, built or merely designed, the concept of *Tectonics* was already making more sense for us if understood not so much in the perspective of the object itself, but rather in the understanding of the author's intentionality put into the Project, considering it *in abstracto*, regardless of the respective physical realization. The idea makes even more sense now.

Thus, it may be advisable to revisit some current designations, some of them deep-rooted in doctrine, such as "Rationalist Architecture," or others of a more recent advent, like "Emotional Architecture." As for the first, the rationale is not that exclusive, after all, since the emotional precedes it. As for the second, it simply makes no sense. As mentioned earlier, every architecture emerges from emotions and is intended to create new ones. Exemplifying with some well-established stereotypes: classical Greek architecture induces rationality, order, and beauty; the Roman, identity, sobriety, and functionality; the Romanesque, contemplation, sobriety, and density; the Gothic, lightness, and elevation; the Baroque, strength, power, and sacredness; the Modern Movement, sobriety, and functionality. The said expression and its substitute "Architecture of the emotions" usually refer to pleasant environments or favorable sensations to promote productivity, creativity, or resting. In our view, they only make sense out of marketing or propaganda purposes. After all, every architecture produces emotions.

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Architecture as an extension of body and mind: Towards a consciousness of the body's experience in space

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ABSTRACT: Mind and emotion will be associated with the perception of the world and the awareness of the body's experience in space in an attempt to build a reasoning centered on the disciplinary area of architecture. The influence of mind and emotions on the design and experience of architecture will be discussed through three approaches: mind, emotions, and Memory, Imagination, and Creativity.

The reader will be guided through a process of consciousness of her own body, its presence in space, and the emotions that arise from the experience of her body in space. Through interdisciplinary approaches, we will discuss the importance of mind and emotions for the body's experience in space and the power of architecture to stimulate our body's experiences and consequently unleash our creativity. The approaches intend to stimulate a debate where themes, ideas, and authors from the fields of architecture, philosophy, and neuroscience will be brought together. Through this interdisciplinary discourse, we intend to highlight the evolutionary potential of the interconnection between the different areas of human knowledge.

Understanding the body, the mind, and its emotions makes us more conscious and capable of controlling the situations in which we live. In this way, we strengthen our ability to make wise decisions and empower our imagination and creativity.

Keywords: Body, Consciousness, Creativity, Experience, Imagination

1 ASSOCIATION OF IDEAS

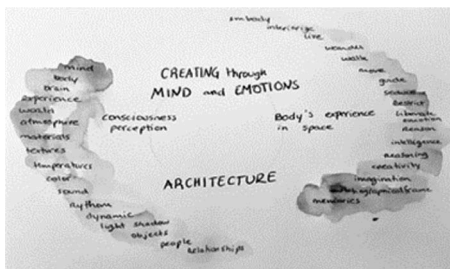


Figure 1. The relationship between mind, emotions, body, and architecture (Salgueiro, 2021).

In this diagram, made for the purpose of this publication, the terms mind and emotions naturally stand out. They do not exist alone; they constantly articulate the surrounding concepts, terms, and ideas to form multiple meanings. Each of these terms has its

own distinctive value and identity, yet they are inseparable from one another.

This association of ideas seeks to refine an approach to the understanding of what “Creating through Mind and emotions” may be in the disciplinary scope of architecture. The reader will be guided through an attempt to clarify the complex and intricate relationship network that generates our ideas, focusing on the impact that architecture can have on this process.

The practice of architecture presupposes a deep knowledge of the human body, its behavior, its mechanisms of interaction with space, people, and the world. Architecture stimulates the ability to become aware of oneself, to recognize or decipher the most delicate details that qualify the experience of the body in space.

As explained in the development of this chapter, we believe that better understanding our body and how it experiences the space in which it lives will give us great knowledge to empower our creativity. We become more aware of the five senses that help us capture and engage with the world. With this

consciousness of the body’s experience in space, we can identify the stimuli from the exterior world more clearly and acknowledge the impact that each specific place has on us.

Considering the human being, in the complexity of ger physiological, biological, neurological, sensorial, emotional systems, that occur inside our body (interior), but that are stimulated by the physical experience of the body in space (exterior), are, then, fundamental inputs to make architecture. With the technological development, ideas that architects have defended are now also being studied in scientific fields, especially Neuroscience, as we will see later on.

This process of rationalizing the physical and emotional experience of the body seeks to understand two complementary questions: On the one side how space and atmosphere can influence our actions, relationships, sensations, and emotions. On the other side, architecture and our body’s experience in space can unleash our creative potential.

2 MIND, BODY, BRAIN, AND EMOTIONS

To reflect on the relationship of architecture with mind and emotions, it becomes relevant to try to come closer to understanding what our mind is and how it works and what our emotions are, and how we generate them.

Our mind can be considered as a complex and mysterious phenomenon that embraces both physical and imaginary actions. In this attempt to understand the mind, it is important to recognize that it derives from the connection between the body and the brain, which interact with the world, complementing each other evenly in the body’s experience in space.

Human beings are endowed with five senses (sight, touch, hearing, smell, and taste) that enable us to capture, internalize and perceive consciously or unconsciously the space around us. But in the brain, we process and understand the information conveyed by de outside stimuli and our senses. This complex and enigmatic organism functions as a laborious and diligent control center. The emission of electrical impulses conducted by neurons commands all the actions of our body simultaneously: from motor coordination to the functioning of our internal organs, even to our emotions. Nonetheless, through this powerful organism, we become conscious of the presence of our body in space and the relationships and emotions that result from it.

In this regard, the mind, that is, the body and the brain, interact continuously and inevitably with the world. Consciously or unconsciously, we are constantly processing the stimuli from the outside world and assigning meanings to the objects, people, sounds, symbols, etc., that make up the space and atmosphere in which we find ourselves.

António Damásio, Portuguese neuroscientist and founder of the ‘Brain and Creativity Institute’ at the University of Southern California, refers in his book *Descartes’ Error - Emotion, Reason and the Human Brain*, that our minds would not be what they are if there had not been an interaction between the body and the brain during the evolutionary process until the present time (Damásio, 2012, p. 18).

$\begin{aligned} \text{Mind} &= \text{Body} + \text{Brain in Space} \\ \text{Mind} &= (\text{Body} + \text{Brain}) \times \text{Space} \end{aligned}$

Figure 2. Mind, body, Brain, and Space Equation (Salgueiro, 2021).

António Damásio also explains in the documentary *Deus Cérebro* that the origin of emotions and feelings is linked to the need for survival. From fear to love, these reactions are as sharp and cognitive as our sensory perception of the world (António Damásio in de Almeida, 2020).

From the point of view of the Italian architect and author, Bruno Zevi, he quotes Wilhelm Worringer’s *Theory of Einfühlung* (empathy or sentimental projection) in his book *Architecture as Space: How to Look at Architecture*. This quote declares that the artistic emotion consists of the spectator’s identification with forms, and therefore in the fact that architecture transcribes the states of mind in the forms of building, humanizing, and animating them. By looking at architectural forms, we vibrate in symbolic sympathy with them because they arouse reactions in our body and our spirit (Zevi, 1996, p. 161).

These quotes enhance the link between reasoning and writhing theories about architecture and the emotional and engaging experiences that architecture can provoke. However, since classical antiquity, thinkers have been confidently dissociating Reason from emotions. Emotion brings with it a feeling of vulnerability and uncertainty that was intended to be suppressed. Greek philosophers such as Plato and Aristotle, and Descartes in the seventeenth century developed and clarified systems that supported the dissociation and autonomy of mind and body. (Philosophical theories: Plato’s Intelligible World and Sensible World; Aristotle’s Matter and Essence; René Descartes’ Cartesian Duality).

In this sense, it seems pertinent to refer to António Damásio’s book *Descartes’ Error - Emotion, Reason and the Human Brain*. Damásio works in science and philosophy, focuses on the study of emotion through science, and explores how emotions influence our decision-making and social behavior. In opposition to René Descartes’s theory, Damásio defends that body and mind can not be separated because both, together in cooperation, complete our body’s experience in space (Damásio, 2012, p. 255). His statements help us recognize the importance of emotion in our reasoning process and our creative

process. Therefore, there should be no predominance or oppression from any part, either from emotions or from reason. Everything is relative and depends on the situation, our life story, the context, the circumstances, and countless other influences that make up the reality in which we live.

The “reasoning strategies” we use will mature and refine our life experiences and are always accompanied and influenced by emotions.

Peter Zumthor wonders, in his book *Atmospheres*, if he can, as an architect, design the atmospheres, the densities, of a specific environment, and if so, how? (Zumthor, 2006, p. 19).

We believe that understanding the power of the mind and emotions in the body’s experience of the place Zumthor refers to might be an important condition for approaching a hypothetical answer to his question.

Christian Norberg-Schulz, in *Meaning in Western Architecture*, mentions the concept of “significant forms.” These forms result from decoding and refining humans’ ways of life, which allow the materialization of spaces loaded with meanings and intentions. He also introduces the concept of “existential meanings,” through which he intends to make clear that architecture is not limited to the mere production of practical and functional spaces but rather is intrinsically linked to each person’s experiences and way of life (Norberg-Schulz, 1973, p. 7). The author goes even deeper on this topic in his last chapter, where he claims that the meaning of every phenomenon is related to the specific context in which it appears. That is why every man is the sum of the interrelationships or meanings accessible to him. “To grow” means for Schulz to become conscious of these meanings (Norberg-Schulz, 1973, p. 224).

Still, the author draws attention to the fact that it is impossible to apprehend the full meaning of the space if we limit ourselves to considering only the function of “orientation” and describing spatial structure. For Schulz, “being in a place” means something more than a fact of location. It implies identification with the specific character of the place: the interconnected complexity of paths, atmosphere, people, relationships, etc., that distinguish the mentioned place (Norberg-Schulz, 1973, p. 227).

Christian Norberg-Schulz, in his book, clearly conveys the idea that the purpose of architecture is not just about meeting merely physical and survival needs that can be satisfied without architecture. Schulz believes that the real purpose of architecture is to contribute to making human existence meaningful (Norberg-Schulz, 1973, p. 228).

The architect undergoes a process of rationalization to transform the mind’s ideas, emotions, and desires, as Peter Zumthor was referring to above, into concrete forms, dimensions, and materials. We

can recognize two distinct yet inseparable and complementary parts of this process: on the one side, we have what is in the abstract domain: ideas, emotions, desires, memories, references, etc. that may appear consciously or unconsciously; on the other side we have what is in the concrete domain: deciding the implantation, designing the space, defining dimensions, proportions, materials, textures, color, light, shadows, temperature, etc.

The architect’s reason considers and explores the different situations to design a space that will interfere with the quality of life and provoke certain feelings and emotions in those who experience it. This rationalization process may be enhanced by the knowledge, experiences, and memories that we accumulate throughout our lives.

3 MEMORY, IMAGINATION, AND CREATIVITY

So, the expansion of the human brain during our evolution gave us the ability to rise above our instincts, to consider our options before we decide what to do. And it gave us our imagination, setting us apart from other animals and making us uniquely creative. (David Eagleman in Beamish & Trackman, 2019).

We build sets of memories about experiences and sensations throughout life, which are spontaneously awakened by stimuli from the reality we live. These memory triggers result from our senses and our interpretation of the context: the space, the atmosphere, the people, and our reactions to them. In this way, we compose an ‘Autobiographical Picture,’ painted by our memories, experiences, and learnings. The moments that become imprinted in our memory influence the formation of our identity, shape our personality, and enhance our imagination and creativity. Our memory allows us to think, support our decisions, and create, invent, and evolve.

The human mind has a particularly acute ability to generate a series of representations that reproduce with great verisimilitude physically experienced situations. “We have this superpower: our brains imagine experiences as if they are actually happening. Scientists call this simulation.” (Lisa Feldman Barrett in Almeida, 2020). The diversity of information stored in our memory serves as the foundation for this mental simulation of experiences. In other words, it serves as the foundation for our Imagination. This ability allows us to foresee various future possibilities that will guide and determine our choices and actions and empower our creativity.

In the Documentary *Deus Cerebro*, Damásio defines human beings as “multimedia beings” because all of our sensory opportunities give us the

ability to map and the ability to create images. He explains that our brain has the capacity in the cerebral cortex to create maps of what is outside through our senses. These maps and images are not limited to visual representation; they make use of all the senses. This ability to literally imagine is for Damásio: the source of the richness of human thought (António Damásio in Almeida, 2020).

Memory, Imagination, and Creativity are capabilities of the human mind that are intrinsically interconnected. Without them, it would not be possible for us to invent or conceive new ideas. We, human beings, can think, ponder, and reason by creating images that we conceive within our minds. Just as we can mentally reproduce something we have already lived, we are also able, with great freedom, to imagine variants, compose new situations, add different experiences, and generate new possibilities. This freedom is a powerful incentive for our Imagination and Creativity.

So, we ask ourselves, how can we unleash our creative potential?

David Eagleman is an American neuroscientist, professor at Stanford University, and CEO and co-founder of the program Neosensory. In the documentary *The Creative Brain*, Eagleman investigates the creative process of various innovators, and it becomes inevitable to mention the impact that the body's experience in space has in this process.

It all goes back to those inputs. The richer and broader they are, the more the brain has to play with. (...) Sights and sounds are mixing with memories, thoughts emotions, new and old. So every experience you have is raw material for your brain to create with. (David Eagleman in Beamish & Trackman, 2019).

From this documentary, we understand that Creativity does not mean inventing something out of anything; it is actually a process of bending, breaking, and blending what already know that leads to new ideas. Bjark Ingels, a renowned contemporary Danish architect, explains in the same documentary that:

It's often in the combination of seemingly mutually exclusive ideas that, if you find a way to combine them, you actually get a third entity that combines aspects of both into something that doesn't seem composite, but actually it's the synergy of the two. (...) A big part of creativity is to create the extraordinary out of the ordinary. So, you take a lot of elements that are known to many, but by putting them together in a yet unseen combination, you actually create

something extraordinary. (Bjark Ingels in Beamish & Trackman, 2019).

At the end of the documentary, David Eagleman describes three steps to unleash our creativity and be innovative: digging deeper, pushing boundaries, and not being afraid to fail.

The confrontation between neuroscientists and architects arises as an attempt to highlight the importance of the body's experience in space for the development of our creativity and consequently to emphasize the impact that architecture can have on our mind and our body's experience in space.

Drawing is considered a powerful tool to develop and represent the ideas that are occurring in our minds since it can be used as a primordial instrument for the observation and interpretation of reality, not only in the practice of architecture but also in its pedagogy (Rui Américo Cardoso in Bismarck, Cardoso, Simões, & Silva, 2021).

The use of drawing is one way, among many others, to conquer our creative freedom. Drawings are records of processes of experimentation and reflection. They invoke themes and concepts from the realm of space organization and plastic composition in the search for meaning. What is shown through drawings is a way of seeing, which determines a way of doing, as it is a way of being (Cardoso, 2020).

So, if the idea leads to the drawing, the drawing also leads to the idea: the drawing holds and generates ideas. That means to represent by drawing both the experience of real space and the experience of imaginary spaces. Drawing establishes a method of approach to the materialization of ideas (Rui Américo Cardoso in Bismarck et al., 2021).

Therefore, the drawing practices are intrinsic to the designer's thinking and inseparable from his or her relationships (Vitor Silva in Bismarck et al., 2021).

These last two statements appear in the catalog that results from the exhibition *Ver, querer ver, dar a ver - desenhar entre fronteiras* na Universidade do Porto at the University of Porto, inaugurated on July 15, 2021. This exhibition arises from the question of whether drawing exists outside its conventional territory of the fine arts. For this reason, it brings together drawings from the faculties of Arts, Sciences, Architecture, Sports, Engineering, and ICBAS of the University of Porto. Its objective is to show the great diversity of techniques and instruments that we can use and highlight the usefulness of drawing in the processes of interaction, research, knowledge, and communication.

In this way, it is emphasized the potential for interdisciplinary knowledge and the use of drawing as a tool to free and stimulate our creativity.

The architect's mind is constantly being stimulated to evoke memories, imagine, mentally manipulate different scenarios, and attempt to predict the atmosphere

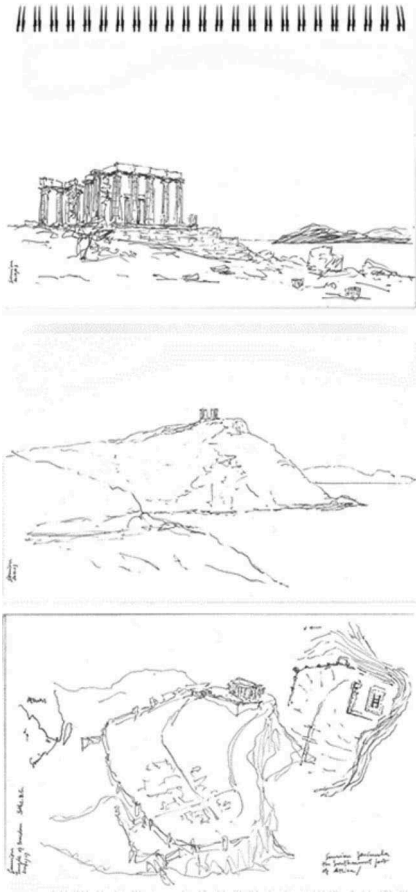


Figure 3. Recognition drawing sequence. Cape Sounion and Temple of Poseidon (Cardoso, 2021).

that will be felt and the possible relationships that will be established, in which of these imagined scenarios one prefers. Memory is indispensable to be able to use knowledge and lived experiences operatively. The architect stores a set of memories and tools that enriches their vocabulary, their architectural knowledge, and therefore enhancing their imagination and creativity in an exciting way. The more the architect lives and experiences, the wider will be the range of references to which he can resort to create new spaces and atmospheres. In this way, a more conscious and confident project attitude is stimulated, as it is based on empirical knowledge acquired through the experience of the body in spaces.

4 FINAL CONSIDERATIONS

This process of rationalizing the physical and emotional experience of the body attempted to approach

two questions. On the one side, how space and atmosphere can influence our actions, relationships, sensations, and emotions. The study of the mind and emotions, associated with the awareness of our body, helps us understand why the spaces transmit certain feelings and emotions. The knowledge of the body, the mind, and its emotions, makes us more conscious and able to control the situation in which we live, as well as empowers our imagination and creativity. On the other side, we reflected on how architecture and our body's experience in space are able to unleash our creative potential. The practice of architecture is responsible for directly interfering in the organization and structuring of both individual and collective human life. From this daunting responsibility also comes the privilege of being able to qualify the daily life of human beings. Whether intervening on a small or a large scale, the architect has the opportunity to imagine and to build spaces that promote quality of life and the development of human beings; to build pleasant spaces that encourage the formation of bonds and social relationships, plus foster the engagement with the world and the appreciation for life. The set of all these experiences, often influenced by architecture, compose our memories: our 'Autobiographical Picture.' They are the foundation to build our personality, and they will serve as raw material for our creativity.

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The primitive hut: Empirical and emotional discovery for a theorization of architecture

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ABSTRACT: During the eighteenth and nineteenth centuries and through the work of previous thinkers, we will see a progressive and effective consolidation of the autonomy of architecture as a discipline. In this context, the primitive hut seems to have consisted of an important reference for architectural theorization. One of the most critical aspects for the evolution of this question surrounding the primitive hut and the origin of architecture may have consisted in the progressive understanding and consolidation of it, no longer as an object of direct imitation, but as an ideal reference, a process that would contribute to the construction of Modernity and for the future evolution of architecture.

Keywords: Primitive hut, Architectural theory, Elementary principles, The origin of architecture

I return to childhood when I watch my daughter periodically inventing her shelter, her 'hut,' 'building' through a skillful collection of the elements necessary to construct this elementary space for protection, play, recreation.

A whole set of questions invade me.

- What becomes more decisive in this act?
- Is the sense of protection concerning the environment?
- Is the possibility to build for herself a new role, a new representation of herself conferred by the game of the shelter hut and what goes on in it?
- How is the hut-shelter built, and what scale of mediation does it take before her body and environment?

I have always been surprised that we do not teach this play. It is inherent and seems to arise naturally, as an elementary need of growth.

- Will be the construction of the shelter space essential to the Human Being?
- Will architecture be an integral part of the construction of the Being?
- Is the return to the original hut/shelter a way of thinking about architecture in each era?

All these questions are complex and seem to contain long journeys to human knowledge.

If we look at the course of History and Theory of Architecture, the present theme emerges as a place of multiple fields of research and a constant search for human beings to understand themselves and architecture as existential support for their lives and the

manifestation of their capacity for creation. In this sense, in different periods and moments of architectural theorization, we see a search of this mythical past, of this first original construction, a construction that, according to different authors, would carry the elementary principles of architecture loaded of original purity.

In each historical moment, the look of different authors has placed distinct emphases on particular aspects of the constitution of this original shelter, a look that not only became possible in the face of the evolution of the knowledge, but also ended up projecting, in the search for the original hut, the aspirations, desires, and questions intrinsic to their time.

Sharing this understanding of Architecture in a universe informed by history and the multiple aspects of cultural reality, it is then essential to see architecture as an act of creative design, which seeks to answer the questions of a particular time. Therefore, this act must be free from the obligation of immutable laws or rules or from a previous obligation to imitate models.

Of fundamental importance for the progressive acquisition of the autonomy of thought for the architectural discipline, we can find the transition to the eighteenth century. This moment would be known as the Enlightenment period and, in the work of its thinkers, the beginning of the construction of a true Modernity in Architecture. This period will invoke the theme of the original hut in search of the liberation of specific rules, searching the fundamental elementary aspects of architecture.

In fact, since the end of the fifteenth century, a profound transformation had been taking place,



Figure 1. Stanley Tretick. “John F. Kennedy Junior”, 1963; Le Corbusier; “Le modulator 2”, 1950.

the coherent Cosmos cemented by reason that we believed conformed to nature, in reality, it did no more than see itself in a Nature that finally was conformed to reason. A regulating force of the central system, where mediations intervened between Man and the real world, will now succeed a demystifying and centrifugal force of direct experience” (Paczowski, 1982, p. 85)¹.

The dark period of the Counter-Reformation, marked by a vision of man as a human being corrupted and subdued by laws and an impenetrable God, will be necessary for the occurrence of a profound

transformation of Western society. During the seventeenth and eighteenth centuries, there was thus the emergence of the Enlightenment, a broad cultural movement, transforming thought, in which the new empirical sciences began to seek to base their knowledge on direct observation of the natural world, relevant fact that would remove/move science from the dogmas of the faith and open the way to a truly renewed vision of the natural world, a vision that would be fundamental for the construction of contemporary architectural thought.

The return to nature as a source of understanding of the world, the understanding of its working mechanisms, and the belief that human progress would now depend on man being able to regulate his behavior, according to the natural laws, would become one of the central axes of Enlightenment thought. We can say that the Enlightenment period will seek to challenge the vision of a world based on previously untouchable certainties, dictated in the majority by religious beliefs or a perfect proportionality of the Cosmos. These beliefs were deeply rooted until then. From this moment on, and opening the way to modernity, a new sensibility began to draw itself, seeking to be guided “by the simple and the natural” for this “is the only way to beauty” (Bergdoll, 2000, p. 54).

This understanding would naturally contaminate the epistemological field of Architecture and the foundations of its theorization. The return to the primitive hut as a process of understanding the origin of architecture and reflection on its essential principles will thus be seen, in the light of this new cultural context, as an important theme driving to an architectural theorization.

It is in this context of change that would lead, as already mentioned, to modern thought that we must understand and situate the contribution of some 18th-century theorists and, in this context, the fundamental work “Essai sur l’Architecture,”² written and published by Marc-Antoine Laugier in 1753. Concretely, in this work, Laugier, belonging to the Jesuit order and theorist of architecture, will first reflect on the origin of the primitive hut and consequently on the origin of architecture, stating that

the first man wanted to build a shelter to protect him without burying him. Some cut branches in the woods were suitable materials for his construction. He chose the strongest and raised them perpendicularly into a square. He placed on top four other transverses and on these, other inclines, in two strands, forming a vertex in the

1. All translations are the author’s except where otherwise stated. “Ce cosmos cohérent cimenté par la raison qui se croyait conforme à la nature, mais qui ne faisait en réalité que s’autocontempler dans la nature conformée à la raison. A la force régulatrice du système central, dont les médiations s’interposaient entre l’homme et le monde réel, succède maintenant la force démystificatrice et centrifuge de l’expérience directe.”

2. The work “Essai sur l’Architecture” (1753), written by Marc-Antoine Laugier, is the best known of his essays on Architecture published in 1753, although only in 1755, in a second edition, the work would integrate the engraving that would become iconic of the so-called ‘primitive hut.’

center. This kind of roof was covered with leaves so that neither the sun nor the rain could enter, and so was the individual protected. The cold and the heat made them feel uncomfortable, in this house opened everywhere, so there was straw between the pillars, so it was safe [...]. The small rustic hut I described is the model on which all the magnificence of Architecture has been imagined. It is approaching, in the execution of the simplicity of this first model, how to avoid the significant defects, how to achieve true perfection. Remaining faithful to the simple and the natural is the only way to the beauty [...] with a minimum of geometric knowledge (the architect) will find the secret to vary to infinity” (Rykwert, 1999, p. 52)³.

Laugier’s work, from which the previous statement emerges, acquires relevance to the field of architectural thought because, for the first time, we can find in it both a rationalistic basis of thought based on the principles of enlightened science of the time, as well as a basis of empirical thinking, open to the empirical discovery of the World and to the acceptance of an emotional side that always exists in this discovery. Thus, the importance of his “*Essai sur l’Architecture*” will consist of the beginning of a claim for the autonomy of architecture as a discipline. This process would be embodied through a reflection on its elementary principles, sought in the purity of the primitive hut, now understanding it no longer as divine creation to be passively reproduced. Instead, this is very important as a reality to be known empirically and emotionally.

More specifically, reinforcing the search for the elementary principles of Architecture, Laugier advocates a return to the primitive hut, seeking in it the essential principles and eliminating the accessory, the ornament that had been characterizing the course of architecture, so the primitive hut, according to Laugier, would be formed by a limpid structure formed

3. “El hombre quiere una morada que le albergue, no que le entierre. Algunas ramas desgajadas que encuentra en el bosque sirven para sus fines. Elige las cuatro más fuertes y las coloca perpendicularmente al suelo para formar un cuadrado. Sobre estas cuatro apoya otras cuatro transversales, sobre estas, coloca en ambos lados otras inclinadas de modo que lleguen a un punto del centro. Cubre esta especie de techo con hojas lo bastante gruesas para protegerle del sol y la lluvia: ahora el hombre está alojado. Cierto que el frío y el calor le harán sentir sus excesos en esta casa, abierta por todos lados; pero después rellenará los espacios intermedios con columnas y así se encontrará seguro. (...) La pequeña choza que acabo de describir es el tipo sobre el que se han elaborado todas las magnificencias de la arquitectura. Los defectos fundamentales se evitan y la auténtica perfección se consigue aproximándose a su sencillez de ejecución.”

by pillars and beams, coming from the trunks of the trees. For Laugier, this primitive hut was the origin of Architecture, being the art of the pure structure, whose essential elements are the column, the architrave, and the pediment, which will fulfill their original structural functions, there is no reason for the application of ornaments (Miguel, 2019, p. 7).



Figure 2. Marc-Antoine Laugier, “*Essai sur l’Architecture*” (1753), engraving and the first page of French edition, 1755.

However, although he tries to reflect rationally on the fundamental principles that would lead to constructing this first primitive model, Laugier does not summarize the essence of architecture to a mechanical model of pure construction. For him,

it is a mistake to believe that everything is reduced to mechanics in architecture, everything is limited to digging foundations, to building walls, (...). The vision of a building built in all the perfection of art causes pleasure and enchantment of which it is not possible to defend. This show reveals, at the moment, noble and touching ideas. He makes us experience this sweet sensation and this pleasant ecstasy that excites the works that bear the mark of an authentic superiority of spirit (Laugier, 1753, p. 1-15).

Laugier’s vision will be significant for the development of contemporary architectural thought. In seeking to reflect on the primitive hut, he sought to highlight the essential from the accessory as a way to the beauty, as a path to the essence of Architecture, stating that

the small rustic hut I have just described is the model from which we imagine all the

magnificence of Architecture, it is in the approach to the simplicity of this first model that we avoid the essential defects, that we grasp the true perfections. (...) It is in the essential parts that consist of all the beauties. Parts introduced by necessity consist of all licenses. Parts added on a whim consist of all defects” (Rykwert, 1974, p. 52)⁴.



Figure 3. John Soane, watercolor drawing of the primitive hut and Paestum Temple reinterpreted from the work of Laugier, 1807-1809.

Thus, the forms would be worked, according to Laugier, in their typological sense, seeking to extract from them the essential qualities beyond their direct external image. Through the identification of the principles associated with the ‘essential parts’ and the ‘introduced parts by necessity’ and the ‘added parts by whim,’ Laugier will thus inaugurate a new modernity in the sense of a theorization of Architecture, making it an independent a discipline and simultaneously freeing it from rules outside it, beginning its future reinvention.

The new complexity that the concept of imitation acquired in the eighteenth century and the reflection that this had on the consideration of the

4. “La pequeña choza que acabo de describir es el tipo sobre el que se han elaborado todas las magnificencias de la arquitectura. Los defectos fundamentales se evitan y la auténtica perfección se consigue aproximándose a su sencillez de ejecución.”

theme of the hut would also be addressed by Quatremère de Quincy, which at the turn of the 1800s. Its theorization would definitively liberate the architectural discipline from a need for direct imitation of the primitive hut. The primitive hut as an original construction deeply interconnected with nature and built on the scale of man and his body, a human artifact that had always sought to reinvent itself in the sense of direct relationship, of direct imitation of its formal elements, would pass with Quatremère, to be understood in a new relation of analogy that would lead to contemporaneity.

In his “Dictionnaire historique d’Architecture,” published in 1832, he clarifies that, in invoking the primitive hut, his concept of architectural imitation is not merely direct but ideal.

By posing the problem of the hut, he dismisses the idea that it constitutes a model to imitate directly by alternatively postulating the concept of “ideal imitation.”

This art, architecture, in appearance more tributary of matter than the others, can become more ideal than those, which is to say, more appropriate to exercise the intelligent part of our soul. Nature does not allow reproduction, under the involvement of its material, more than analogies and intellectual relations. Architecture imitates less the model in what it has of material than in what it has of abstract. (Escobar, 1991, p 91)⁵.

The thought of Quatremère de Quincy will complement the contribution of Laugier and will be very important for the construction of Modernity because continuing to look at the primitive hut. He will seek to understand and preserve all that the hut carried as a powerful cultural reference. However, he will definitely pave the way for an effective liberation of the hut as a reference for a strict sense of imitation.

When we speak of the tree as a primitive matter of dwellings, we must be careful about taking the word in too positive, direct meaning, as we see what happened to some theorists, who intended that the column was, its first function, a copy of the tree. The tree we are talking about here is synonymous with wood. It is not

5. “Así esta arte, en apariencia más tributario de la materia que las otras, ha podido convertirse, bajo este último aspecto, en más ideal que aquéllas, lo que equivale a - decir más propia para ejercitar la parte inteligente de nuestra alma. En efecto, la naturaleza no le permite reproducir, bajo la envoltura de su materia, más que analogías y relaciones intelectuales. Este arte imita menos el modelo en que tiene de material que en lo que tiene de abstracto.”

a question of giving architecture models to imitate rigorously. We will see that all that concerns its imitation is based on analogy, induction and free resemblance (Escobar, 1991, p 92)⁶.

Thus, and to finish, we can say that during the eighteenth and nineteenth centuries and through the work of previous thinkers, we will see a progressive and effective consolidation of the autonomy of architecture as a discipline. In this context, the primitive hut seems to have consisted of an important reference for architectural theorization. One of the most critical aspects for the evolution of this question surrounding the primitive hut and the origin of architecture may have consisted in the progressive understanding and consolidation of it, no longer as an object of direct imitation, but as an ideal reference, a process that would contribute to the construction of Modernity and for the future evolution of architecture.

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6. “Cuando hablamos del árbol como materia primitiva de las habitaciones hay que cuidarse de tomar la palabra en un significado demasiado positivo, como vemos que han hecho algunos escritores especulativos que, abusando de esta teoría, han pretendido que la columna fue, en su primera función, una copia del árbol. El árbol del que aquí hablamos es sinónimo de madera. No se trata en esta teoría de dar a la arquitectura modelos a imitar de modo riguroso. Veremos que todo lo que concierne a su imitación está basado en la analogía, en la inducción y en la libra semejanza.”



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The phenomenon of Graz School: Architecture between emotions and rationalism

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ABSTRACT: The chapter concerns the achievements of Graz School. The text deals with determining its importance in the context of cultural evolution. It turned out to be a phenomenon on a global scale at a particular time. Austrian representatives of this trend introduced an original route for the development of an architectural form. Finally, it turned away from both the established modernist dogma and postmodern scheme.

The text explains the specificity of the buildings designed by Günther Domenig or Michael Szyszkowitz's and Karla Kowalski's team, and many other architects who found the courage to oppose the obviousness. However, it should also be noted that the Graz School was not a homogeneous phenomenon. For example, Klaus Kada and Volker Giencke introduced different scenarios, although they still meet the programmatic core of the Graz School. The diversity of attitudes is evident from the moment this architectural tendency emerged. It also has determined the reliability of the aesthetic program. Finally, it determines the fact that the Graz School balances between the emotional and the rational.

Without a doubt, the Graz School managed to break a series of stereotypes that dominated the European architecture of a particular time. While this trend is associated with the city of Graz, its impact is not limited to the source location.

Keywords: Graz, Austria, University, Architecture, Project

1 INTRODUCTION

The term "Graz School" (originally "Grazer Schule," further abbreviation: "GS") occurs within disciplines such as psychology and philosophy. Basically, it is identified with the figure of Alexius Meinong (Stock, 1996, p. 458). This researcher is responsible for key developments in the field of 19th-century experimental psychology and metaphysics. They have become the domain of the University of Graz (originally Karl-Franzens-Universität Graz).

A strictly contemporary research problem is the existence of the above concept in relation to architecture. Within this discipline, the name first came into use in 1949. The circumstance was the significant exhibition of student works by the Graz University of Technology. It was organized at the Massachusetts Institute of Technology (Beckmann, 2015, p. 419).

This event should be considered symbolic because it identifies the historical moment in which GS was identified with architecture. What is more, it exceeded the local dimension gaining actual international status.

2 THE DEVELOPMENT OF THE TREND

The term GS was efficiently applied in the 1960s. At that time, Günther Domenig and Eilfried Huth designed two adjacent buildings, representing completely different approaches to architectural form shaping. They were the Pedagogic Academy and the Parish Center located in the suburbs of the city. The construction of the academy supported a brutalist trend. It was further expressed in the structuralism of numerous housing estates designed by the Werkgruppe Graz. While remaining in opposition, the ecclesiastical building started a biomorphic alternative approach.

Since then, the evolution of local progressive architecture has run along two parallel routes. However, Anselm Wagner recognizes this as a turning point in the development of GS. Evidence was the emergence of a strong aesthetic subjectivism that was expressive in form and contrasted to brutalism (Wagner, 2012, p. 67). In this context, the cultural significance of structuralism for the benefit of a trend identified with expressive gestural attributes with biomorphic formalistic language.

Paradoxically, the following example that confirmed this fraction of GS is situated not in Graz but in Vienna. The bank's headquarters, completed in 1979 in Favoriten district, is a meaningful example of an organic narrative structure. A representative element of the composition is a liquid facade covered with metal shell. It is arranged in suggestive folds emphasizing the location of the main entrance from the street. The sculptural elements of the interior suggest morphological and anatomical references to the living world. The Viennese bank was an example of resistance to global trends, although it is easy to find elements of high-tech style here. Above all, it spontaneously expressed an attitude based on the affirmation of life against the modernist logic.

The building attracted public attention. Frank Dimster described the Viennese example as follows:

Günther Domenig believes that buildings must convey a sense of responsibility that extends beyond function and mere economy, in both materials and ideas. Building should be judged by a standard that encompasses a broader sense of purpose. Architecture is capable of transmitting a multitude of messages, including a feeling for the emotional context of events that transpired during the planning and building process. A building can express itself through a language that places it at a specific point in time. Domenig maintains that because of this deeper responsibility a bank branch must be more than an impressive, stable-looking establishment building where the usual financial transactions take place (Dimster, 1995, p. 14).

This time Domenig amazed the critics with the symbolic deformation of a technologically advanced image (Gleiniger-Neumann, 1986, p. 126). His work falls entirely within the sphere of abstraction. It was an action in an imaginary reality. Finally, the creativity in this sense was a projection of the author's affect rather than a rational analysis of an organic structure.

3 KEY PROJECTS

A consistent creative strategy led to a series of designs that proved sufficient for an architectural trend to emerge.

3.1 *Domenig's further creative contribution*

Domenig remains the most important of the GS initiators. An analysis of his projects leads to the conclusion that the expressive trend was present in all his activities.

The architect's creative activity goes beyond the city of Graz. His works are located in various locations in Austria and Germany. One of his most

famous projects is "Steinhaus," completed in 1996. This exhibition pavilion was intended to be the architect's own home. The building is located in the village of Steindorf next to Lake Ossiacher.

The picturesque landscape of Carinthia creates a scenery for this object. It also imposes particular artistic circumstances on it. The irregular shape refers to a mountainous land. The author often refers to his personal experiences and memories. The house substantiates the emotional charge as a result (Steiner, 2017, p. 27). However, the architect's childhood memories are materialized here differently than in Peter Zumthor's projects. The meaning of this Domenig's work is expansive and full of various symbols, while Swiss architect's projects are expressed in introverted minimalism.

The layout of the building is central, although there is no symmetry at all. The geometry of this structure is not obvious. The core of the house is a modern sculpture, which is also an installation that collects rainwater. The multi-value character of the building makes the GS connotations one of the many aspects that emerge from this architecture. In this case, an important ideological background is the affirmation of life. In addition to direct formal inspiration from the natural world, there are also symbolic references to all four elements: water, fire, earth, and air.



Figure 1. Günther Domenig: ReSoWi, Graz, Austria, 1996. Source: photo by Aleksander Serafin.

An example of a building designed by Domenig in the city of Graz is the ReSoWi University Center (Figure 2). The architect implemented an extraordinary

vision where a quasi-biological form pierced the regular shape. This linear structure stands out from its surroundings both in size and shape. Frank Werner wrote:

The building's rational construction framework is repeatedly contradicted by autonomous bodies which clash with it. The degree to which these bodies, which range from the conventional to the artistic, project from or clash with the uniform framework decreases continually from the ground floor to the fourth storey. But the impression of spatial flexibility, openness, dynamism and mobility is deceiving – both the external and the internal appearance of the building expresses itself as a 'frozen' snapshot of an originally open architectural experiment. However, the graphic articulation of heterogeneous forces in real as well as virtual rivalry lends this building its memorable and emotive character (Werner, 2009, p. B08).

A further review reveals items such as the Documentary Center in Nuremberg and the T-Center in Vienna. They literally quote elements from the organic world, even though they tell completely different architectural stories

3.2 Works by Szyszkowitz+Kowalski

The team of architects Michael Szyszkowitz and Karla Kowalski made a significant contribution to the history of GS. In their project, the development of tendencies was most effectively realized. These two architects worked on the design of the Olympic complex in Munich, at the turn of the 1960s and 1970s, alongside Frei Otto and Günter Behnisch. This professional experience made the Szyszkowitz+Kowalski team strengthen their belief that architecture should definitely go beyond the technical and rational sphere, and the "poesis" layer should constantly release an individual language of forms regardless of the materiality of the buildings (Wihelm, 1995, p. 92).

The Graz University of Technology research center is a clear example of this approach. The building was completed in 1990. It fits the aesthetics of deconstruction that was fashionable at the time. Andrea Gleiniger wrote about it as follows:

Characteristic of the Institutes for Biochemistry and Biotechnology and of the work of Michael Szyszkowitz and Karla Kowalski in general is that their lively, expressive architecture can also seem somewhat bizarre and have an initial «bewildering» effect. Nothing could be further from the mark, however, than to see in this architecture examples of that »fractional geometric« chaos, of which spokesmen for

»deconstructivism« - who can also be found in the oft-cited »Graz School« - like to avail themselves (Gleiniger, 1994, p. 18).

The mosaic on the walls is arranged in a non-obvious raster. More extended observation makes it reveal deformed images of bird creatures. On the one hand, it can be said that references of an untouched nature dominate here, which means the strengthening of the GS. On the other hand, the fractal method was used here, which should be considered as the principle of self-similarity of elements. Therefore, attention should be paid to the spatial relationship between the object and the recipient. In this context, Wolfgang Schäche wrote: "The multi-layered façade mediates between the large scale of the building and the reduced dimensions of man" (Schäche, 1991, p. 31). Formally, it is an emotional expression of a disordered structure. However, it turns out that this is a rational approach that responds to the psychological problem of feeling lost in the city.

Another example of an uncompromising creative approach presented by the Szyszkowitz+Kowalski is the Inffeld Study Center project in 2000. The construction was for the same institution, so the Graz University of Technology (Figure 2). Werner wrote:

Situated in a campus with heterogeneous style and quality of architecture on the outskirts of Graz, the study center tells a story about its users' emancipatory potentials – in the midst of a rigidly prescribed environment. In a deliberate contrast with the building's rational exterior, the courtyard between its »pincers« has green climbing plants to evoke Tuscany and the visual qualities of a different, more relaxed natural environment. The building's impressive qualities are due almost exclusively to its narrative elements (Werner, 2010, p. 11).

This building stands out among functional academic buildings. This project mitigates the "radicalism" of the urban layout. It is an element of emotional expression in a rationalized environment. Another time Werner wrote:

In the Inffeldgründe study center, the sharp-edged mixture of concrete, glass, variously colored plastered and cladded surfaces and metal slats, and the sharp-ended »shipshape« silhouettes of the buildings' wings are initially irritating. It takes a second glance to realize how meticulously and precisely the individual structures and claddings are matched to the hybrid functions the building houses. Inside this functional building, economic factors imposed restrictions on the variety of the design. But here also, all the details of the robust and reduced

design fit together to create a congruent and concordant overall picture. What is surprising is that even this »hard« system of room provides the occasional niche for »soft« atmospheric secluded areas (Werner, 2010, p. 67).

The authors' strategy comes down to creating a friendly space that grows out of seemingly radical visual solutions. These radical stylistic means do not mean emotionally oriented architecture. Referring Werner's another opinion it can be cited:

Partly stringently rational in design, partly labyrinthine, and then expressively playful, the mix of rooms held together solely by means of a mesh-like diagonal grid is constituted as a complex system comprising chambers of light varying in height and width, caves, large opulent rooms and informal «living-rooms». It would be hard to find student workplaces more affective, i.e. more stimulating than these; not to mention the interior qualities of their professional counterparts. More or less surrounded by «lifeless perception», Szyszkowitz+Kowalski have yet again pulled off a masterstroke of »living architecture«; architecture that converts the dialectics of hard and soft, light and dark, order and chaos, concealment and openness, reason and emotion into an impressive panorama of human building (Werner, 2001, p. 32).

Once again, it stays clear that this sort of creativity determines life-affirmation with the multitude of its processes and dependencies.

3.3 *The strategy of drawing. Against the rational creativity*

Karla Kowalski says that “every architectural statement is always, first and foremost, intellectual interpretation of existential issues” (Kowalski, 2006, p. 56). In this point of view, this work meets the requirements of rationalism. Balancing this state seems to be a natural need. An important element that complements the professional creativity of the team is freehand drawing. As a result, illustrated stories are created that do not conform to strict typology. On the other hand, they represent pure freedom and are not subject to the investor's judgment. They only express an imaginary world and constitute a kind of creative experiment.

The “Monsters” series is an imaginary that constitutes such an alternative dimension of architecture. It is a game between drawing and sculpture. As a result, the factor of humanizing architecture is

shaped. Thanks to this, the works of the Szyszkowitz+Kowalski team are primarily expressed by the “life-affirming philosophy.” The belief that the dominance of orthogonal, restrained, and at the same time rationalist architecture cannot be a new perspective for the built environment.



Figure 2. Michael Szyszkowitz, Karla Kowalski: Inffeld Study Center, Graz, Austria, 2000. Source: photo by Aleksander Serafin.

4 UNDERSTANDING THE ALTERNATIVE APPROACH

Architecture in the city of Graz is heterogeneous. Considering the entire urban landscape, it is not subordinated to the style imposed by the Szyszkowitz+Kowalski team in their projects. Peter Blundell Jones wrote:

Szyszkowitz+Kowalski played a key role in the movement of the New Graz Architecture. Their influence has spread not only through the example set by their own work. An astonishing number of architects who were later significant for the movement passed through their office, even the leading Graz minimalists Riegler/Riewe (Blundell Jones, 2003, p. 10).

Thus, the GS tendency does not mean one coherent narrative directed for or against modernism. Likewise, not all GS representatives designed forms referring to the animated world of organisms. Such outsiders are, for example, Klaus Kada and Volker Giencke, who created individual formal codes and are also assigned to GS.

Finally, there is a large creative output of the aforementioned Riegler Riewe team. Despite cooperation with Szyszkowitz+Kowalski, they presented a completely different approach. So there are

projects that do not fit into the GS discourse, but they are recognizable for the architecture of Graz. The city cannot be seen as a fortress of a uniform architectural style. Belonging to GS is associated with an original narrative that was one of many present in the Graz University of Technology curriculum.

5 A SINGLE CULTURAL EVENT AS AN IMPULSE FOR ARCHITECTURAL DEVELOPMENT

Graz was awarded the title of European Capital of Culture in 2003. Preparations to assume this role were associated with the initiation of several representative projects. One of them is Vito Acconci's work. This American performance artist created an artificial floating island in the middle of the river. The "Murinsel" facility connects the opposite river banks and acts as a footbridge (Figure 3). The access was initially planned by underwater pipes (Titz, 2009, p. A07). It also plays a recreational and social function through the amphitheater-shaped public space in the central zone.

It is an example of a facility that at a particular time must have served as a symbol associated with a specific cultural event. Ultimately, however, it had to become a monument commemorating this event. In order to gain the role of a spatial accent, this type of form had to be arranged originally. The dynamic and emotional architecture was created following the city's building tradition. On the one hand, it symbolically emphasizes the spontaneity of the Mur River, and on the other hand, it is an act of spontaneous creative activity. Summing up, this original structure has combined functionality and an attractive form.



Figure 3. Vito Acconci: Mur Island, Graz, Austria, 2003. Source: photo by Aleksander Serafin.

6 THE POTENTIAL CULMINATION OF THE TREND

A building designed by two British architects has become a hallmark of international importance. Peter Cook and Colin Fournier designed the Kunsthaus Graz on the right bank of the river. Since 2003, it has been the new symbol of the city. Previously, this role was played by a castle located on a hill. The shape of the art gallery resembles a huge, shiny bubble that smoothly fills the space between tenement houses. It can also be considered a flagship example of blob architecture.

On the one hand, the implementation follows the biomorphic stylistics of the GS, and on the other, it refers to the aesthetics of the mega-structures of the Archigram.

The project is a materialization of the belief that the task of architecture is to change the means of reacting to the changing world constantly.

It seems that utopias such as "Walking City" are reflected in this project. The original concept was to create a city resembling a large amphibian that moves across the earth until its inhabitants find a convenient place to settle. Kunsthaus Graz is not so much the realization of the vision itself but a symbolic freezing of such a utopian scene and transforming it into a single image. In this sense, it is a mimetic design based on Szyszkowitz+Kowalski design principles. However, in both cases, different forms were used.

The art gallery was built as an act of confronting tradition with modernity. This is illustrated by the places where the new structure merges with the historical urban tissue (Figure 4). This architectural form proves the openness of the local community to avant-garde solutions.

7 CONCLUSION

Nowadays, the aesthetics presented by GS no longer seem to be accepted by investors. As a rule, the narrative and apparent mimics have exhausted their potential. Current civilization needs to create a demand for sustainable and visually sublime architecture. In this point of view, GS has given way to tendencies that demonstrate a less radical attitude.

GS unexpectedly balances rationalist and emotional states. Despite their complexity, these solutions express logic because they reflect life mechanisms. However, the abundance of forms itself is an individual non-verbal expression of the artist and builder simultaneously.

A basic review of the achievements of this Austrian trend seems fully justified as it highlights an immanent cultural need. Namely, in architecture, there should be some accessible space for utopia and fiction. Thus, the affective values of architecture are exposed.

This professional environment presented several variants of shaping the architectural form. It provided an alternative to the highly institutionalized reality that is guided mainly by the criterion of economic optimization.

The current international research discourse requires the identification of GS. It seems reasonable to rank its creative output and to define the boundaries of the influence. Moreover, a critical look at the achievements of its representatives is needed. It is also necessary to separate the assessment of aesthetic and technical values from ideological and cultural ones.



Figure 4. Peter Cook, Colin Fournier: Kunsthau Graz, Graz, Austria, 2003. Source: photo by Aleksander Serafin.

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Investigating the potential for integrating pure shadow lines into architectural design process

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ABSTRACT: A large body of literature demonstrates that geometries with mathematically pure expressions are visually pleasing; however, there are fewer publications concerning how these relationships might be integrated into architectural design. This chapter aims to integrate these geometries with daylight when formed by the edge of light and shadow that result from direct sunlight entering a room through roof apertures and displays on northern walls. This chapter aims to investigate the potential of allowing architects to predict the resulting indoor shadow lines in an early stage during the design process. First, by describing a method to evaluate the degree of purity of lines. Next, by applying the described method to test the hypothesis that more geometrically pure combinations of northern walls and roof apertures' configuration, as a starting point, will yield geometrically pure shadow lines. Finally, to extract a regression equation that opens an opportunity to develop a design decision-making representation tool that enables architects to predict the geometric purity of shadow lines in the stages of early design.

Keywords: Beautiful lines, Harmonic proportions, Architectural daylight, Spatial explorations

1 INTRODUCTION

Psychologists and scientists have found an association between line geometries and the visual perception of beauty. Valentine (1919) found that simple curves that change gradually tend to make people experience pleasure. Another study by Lundhulm (1921) found that the beautiful lines were usually described as smooth, harmonious, sweeping, and gradually curved. Furthermore, recent neuroscientific evidence suggests that simple curvilinear patterns stimulate areas in the brain that are associated with biophilia or feeling natural beauty (Albright et al., 2020). These previous studies suggest that lines that are simple, unified, and harmonious are pleasing to the eye.

In parallel, mathematicians and biologists have found that lines in nature are also unified and harmonious. Colman (1971) studied several natural geometric shapes, such as those made by butterflies, leaves, and seashells, asserting that many natural objects have harmonic unity; pure geometries are always present in a sacred grammar of nature. Perhaps our attraction to simple, harmonic lines evolved from thousands of years of interactions with nature, where our ancestors lived in natural environments and developed innate preferences for certain geometries (Huntley, 2012). Geometric shapes occur naturally, which means that they are not subject to

different social classes and cultures; they are fairly common to a large group of people.

Philosophers and artists assert that people experience pleasure when viewing lines that can be expressed as simple mathematical equations

Ghyka (2014) and Cook (1979) found that lines with pure mathematical expressions coincide with natural geometries. Pure mathematical lines have historically been sources of inspiration for many artists. Therefore, there is a potential to measure the beautiful lines described by other disciplines using mathematical equations.

Architects have long relied on mathematics to produce visual shapes that please the eye. In his book, *Towards a New Architecture*, Le Corbusier (2013) suggested that in order to make architectural work pleasing to our senses, all elements must be studied mathematically. Vitruvius and Alberti argued that because they evoke sensory stimulation, sacred buildings should incorporate pure geometrical relationships to the human body (as cited in Bragdon, 2019). Despite the importance of mathematics in showing beauty in architecture, there are few digital tools aimed to integrate mathematical beauty into architecture. This paper focuses on investigating the complementarity between mathematical beauty and sunlight represented by shadow lines.

The visual-spatial experience is greatly influenced by light and shadow. Properties of sunlight, such as

geometry and temporality, play an important role in stimulating visual perception (Millet, 1997; Rasmussen, 1964). In the chapter titled “Speed of Shadow,” in his book *Parallax*, Steven Holl (2000) proposed an exploration of how curved walls and differently shaped roof openings can yield varied curves of light and shadow. Holl’s exploration identifies two independent variables that mainly influence the formation of the shadow line: the geometry of the wall that receives the light and the geometry of roof aperture. Building on Holl’s exploration, this paper investigated the possibility of applying beautiful lines that have been described in many disciplines into scenarios of shadow lines resulting from the movement of the sun around the room and the passage of sunlight from the roof openings up to the northern walls. An external isometric view shows the independent variables and the simulation of the sun’s path [Figure 1]. The incorporation of aesthetically pleasing geometric shapes into indoor environments during daylight hours is more important nowadays, especially given the fact that people spend 90% of their time indoors (Fajkus & Whitsett, 2018).

The purpose of this research is, first, to describe a method that allows architects to evaluate the geometric purity of lines. The second purpose is to investigate how to display pure geometries of shadow lines

considering the temporality of the sun by testing the hypothesis that purer combinations between the walls and roof aperture, as a starting point, will result in purer shadow lines. The final goal of this paper is to provide a linear regression equation that will serve as an initial step to integrate the described method with architectural drawing software that will enable architects to predict the geometric purity of shadow lines in the stages of early design.

2 METHOD

The research design followed a quantitative approach; it measured the relationship between the use of pure lines on northern walls and roof apertures as a starting point and the resulting shadow lines throughout the year. The method applied three stages. First, to describe a tool that determines the geometric purity of lines that allows architects to assign numerical values to lines. Second, the project applied the suggested tool and performed simulations that represent the sun’s movement around the models. Third, the researchers implemented a linear regression model that tested the relationship between models and resulting shadow lines. The process begins with drawing lines and then extracting its mathematical equation. By repeating this method, several models were built, each of which had varying mathematical purity as a combination. These models were tested under the sun’s movement for every hour on three days (Summer and Winter Solstice and Spring Equinox) that represent all days of the year. Then, the researchers evaluated all resulting shadow lines. Next, a comparison was made to determine whether the models consisting of lines (north wall and roof aperture) of high purity would produce purer shadow lines throughout the year.

2.1 Evaluating geometric purity

The first step utilizes two-dimensional coordinates in a Cartesian system by applying two software programs: Autodesk AutoCAD and Curve Expert Professional. This stage incorporates two main phases: extracting coordinates and testing the degree of purity.

2.2 Coordinates setup

The first step in the assessment process is to draw the evaluated line in AutoCAD. The next step involved using the divide command, clicking on the line, then choosing the number of points (coordinates) to export. Next, the user manually added a coordinate point at the start and the end. In this research, nine points were used for evaluating all lines. Then, the user selected the points on the curve and chose the list command. The coordinates of each point will appear as X and Y format. Note that the first and last coordinates must be aligned on the X-axis.

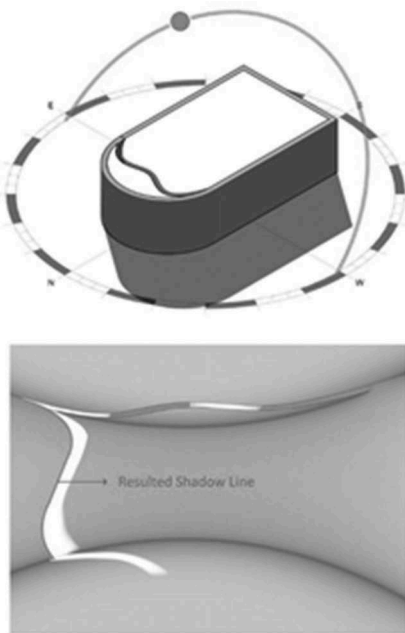


Figure 1. Top: an external isometric view of model C shows independent variables (starting points) and the simulation of the sun’s path. Bottom: an interior view of the resulted shadow line.

2.3 Test for geometric purity

Next, the user must insert the extracted X and Y coordinates into Curve Expert Professional, click on calculate the nonlinear regression, then place a checkmark on the nonlinear model and click OK. In this way, the program will apply all the equations to the data. Then a list of all equations will be sorted by the highest value of R2 to the lowest. These equations express the types of curves that have a mathematical purity, in which a higher value of R2 expresses the drawn line being closer to a pure mathematical equation.

3 SIMULATION VARIABLES

The hypothesis test required passing through three stages: constructing models, applying the sun path, and testing the purity of the resulting shadow lines. The tool was used to evaluate four curves, each of which had a different value of R2 (0.99, 0.92, 0.83, 0.79), as shown in [Figure 2]. The first and fourth lines showed a sinusoidal equation with R2 of 0.99 and 0.79, which can be represented as:

$$y = a + b \cos (cx + d)$$

The second and third lines showed an exponential plus linear function with R2 of 0.92 and 0.83, which can be represented as:

$$y = a + brx + cx$$

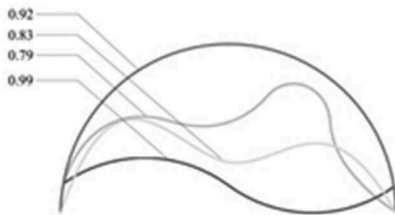


Figure 2. Evaluated curves with their R2 values.

3.1 Constructing models

Model selection will discuss three criteria: dimension, orientation, and roof aperture. In this research, northern walls were constant, and roof apertures were subject to change. All models had a dimension of 12.60 x 6.80 with 3.00 meters height and ceiling thickness of 0.30 meters. The four evaluated curves were used as roof apertures, as shown in [Figure 3]. All models were placed in the latitude and longitude of New York, NY (40.7128° N, 74.0060° W). The

resulting shadow lines were taken on the summer solstice (June 20) and the spring equinox (September 22) for each hour from sunrise to sunset. Winter solstice was excluded due to the absence of sunlight on the wall. Models shown in [Figure 3] are arranged from left to right, from highest to lowest degree of purity of the combination between the walls and the roof apertures. The combination of models was determined by considering the average between the value of the roof aperture and northern walls. For example, model A has a vertical aperture of 0.99 and a northern wall of 0.92; thus, the combination is 0.95.

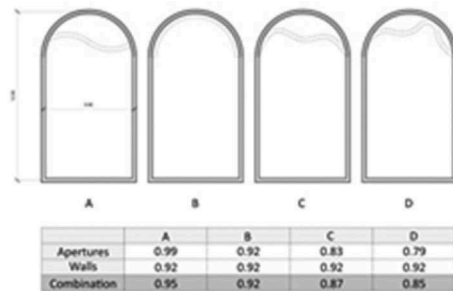


Figure 3. Top: plan of the four constructed models. Bottom: combination values for each model.

3.2 Evaluating shadow lines (data gathering)

Each of the four models was tested under the sun from sunrise to sunset in the aforementioned times. The movement of the sun-generated different shadow lines in each hour. Hourly renders were evaluated using the previously mentioned tool. Each shadow line has a numeric value that was used in the regression analysis. In some cases, the resulting shadows showed more than one shadow line, which were all added for the same hour.

4 REGRESSION ANALYSIS

Linear regression analysis is a statistical tool that tests the relationship between variables by fitting a linear equation to the data. In the research context, the role of the linear regression analysis is to find the relationship between the degree of purity of the model's combination and the resulting shadow lines. The four combinations were distributed on the X-axis as independent variables, and the purity of the resulting shadow lines on the Y-axis were considered dependent variables.

5 RESULTS

Model A in the summer yielded 11 shadow lines with a purity range of 0.80 to 1.00. In the equinox season,

10 shadow lines resulted, ranging from 0.84 to 1.00, where 9:00 am yielded the lowest purity of shadow line in both seasons. Model B produces 10 shadow lines in the summer, ranging from 0.82 to 1.00 purity. In the equinox, 10 shadow lines were also produced, ranging from 0.86 to 0.99, where 1:00 pm yielded the lowest degree of purity for both seasons. Model C produced 11 shadow lines in summer, ranging from 0.76 to 0.99, with 1:00 pm having the lowest degree of purity. In the equinox, 12 shadow lines were produced, ranging from 0.55 to 0.99, with 3:00 pm recording the least pure shadow line. Model D in summer resulted in 14 lines, ranging from 0.45 to 0.99. At 12:00 pm, two shadow lines appeared, which represent the highest and the lowest purity. In the equinox, 12 lines were produced, ranging in purity from 0.41 to 0.99, with 2:00 pm yielding the least pure lines of the day. Considering all the resulting shadow lines, the linear regression analysis shows a positive relationship between the combination of walls/aperture and the resulting shadow lines as shown in [Figure 4]. This equation is represented as:

$$y = -0.292096 + 1.3452307 x$$

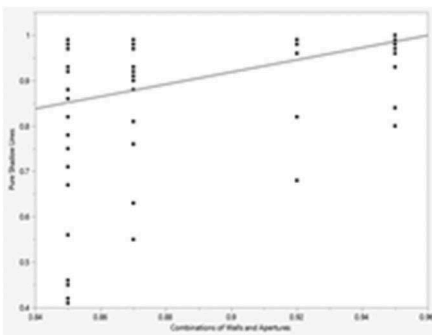


Figure 4. The linear regression result for the four models.

6 CONCLUSION

Research from broad disciplines has highlighted the role of pure geometrical characteristics and their visual relationship to our sense of beauty. This project concerned the integration of these mathematical characteristics with architecture, specifically in the use of daylight and the design process. The researchers proposed a method for

measuring the mathematical purity of lines that relied on the value of R2 as an indicator of mathematical progression. The method was tested on four models that had different degrees of purity as a relationship. These models were built digitally, and the sun was simulated to determine if there was a relationship between the resulting shadow lines and the starting points (walls and roof openings). The linear regression analysis showed a positive correlation between the purity of the starting point and resulting shadow lines.

7 FUTURE RESEARCH

Future research should include a larger sample to reduce standard errors and extract a more accurate regression equation. Subsequent works must validate the numeric values of pure shadow lines with human response. Doing so will allow researchers to develop a design decision-making representation tool that allows architects to predict the purity of shadow lines in the early stages of the architectural design process.

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Architecture: Reflections on the experience of the project

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ABSTRACT: Current thinking about the design process as an intermediate stage between the idea and the architectural product has raised a series of questions, presented in the critical reflection that follows, which seeks to find the connection between mind and emotion, establishing the author as a constructor of inhabited places through the manipulation of form, and an originator of spaces where the present, past and future overlap, at each moment in everyday life, at solemn moments, celebrating in a constructed work the dream of eternity pursued by all mortals. It is a question of recognizing the value of dreams in teaching architecture, its history, and pre-vision, in a world where the longing for permanence seems to collide with the fear of recording, in work, the world of the moment, and to assume that, in the present day, the life that passes also deserves to be documented despite the ephemerality that pervades a present whose future is uncertain.

Keywords: Architecture, Design, Memory, Project, Teaching

1 FRAMEWORK

When we reflect on architecture, we think beyond tangible realities: experiences immersed in emotions, fixed in facades and rooftops, windows that open out onto a view, doors that mark out rooms with furniture, and photographs of beach parties in a summer, long ago. One also thinks about architecture's primary, paramount vocation: to give shelter to life; the past life that is borne in memories; the future life of dreams to be fulfilled; life in the present, at every moment. From the banal to the exceptional, architecture houses this tapestry of tales and expectations embedded in walls and ceilings, open windows and doors looking out onto an invisible city, as in Calvino (2015), reproducing daily lives transformed into unique moments shaped by the tangibility that determines ways of life.

The teaching of architecture enshrines a contradiction. On the one hand, the architect sets out to anticipate a unique and unrepeatable future that will be constructed. On the other hand, the material on which he feeds when inventing the new dwelling for humanity concentrated in that singular project is the total sum of the emotions and experiences that make him a creator.

Therefore, it is from pre-visions and reminiscences, the synthesis between what does not yet exist but will exist in the future, and what has already existed and will not be repeated, that the project imaginary is born.

But the project is also an end in itself, not a mere means through which the author communicates the object he has imagined to the one who then transforms it into a tangible object. To this end, this graphic piece is, in essence, a readable reality in itself because the design is the result of the symbiosis between the mind and emotions, between the brain and the hand. Even in this digital world, the design is still controlled by the author's imagination.

However, the design becomes independent of what it sets out to anticipate and is revealed as the trigger for another reality, not what will be constructed through it, but for the reality that lies in what each observer of that design confers upon it.

Thus, when teaching architecture, there are not one, not two, but as many realities as people who read the project design and mentally attribute to it the final destination of a constructed work.

Finally, one never knows whether what each person sees is the same as what others are contemplating. It is surely only an objective if it can be quantified, and only what is inhabited, and therefore open to discussion, becomes irrefutable. The real is a mental construct.

When one teaches an architecture project, what is to be learned should encapsulate an imagined reality. Then, afterward, transcribed into a codified language of lines and cross-hatching expressed in datum points and materials, so that roofs and windows, doors and doorposts, tints and lights, can be built in stone,

brick, and wood, in a physical space, a tangible place where humanity can live in harmony.

This desire for a balance between what is imagined and what is constructed, this sequence of fleeting images that, through the construction of the space, becomes anonymous, everyday elements or exceptional facts in the city of the future. They continue to demand that the design embody the simulations of life and allow the onlooker to interpret it uniquely because it is a personal experience, the provision of the constructed work, already inhabited by children's laughter, older people's musings.

Drawing makes thought visible, said Paul Klee. However, to draw is to master a graphic language where, as a point of reference, other realities, lived or dreamed, are transcribed, where ways of life are anticipated, where a future in the home is idealized.

From the ancestral home to new dwelling models, a whole world takes form in idealized habitations for a dream of life that does not belong to any individual but to a social and culturally normalized self. It is as if there were an urgent need to include diversity in a politically correct society.

In inventing architectural projects, we anticipate what still does not exist but is being revealed with every stroke of the pencil on paper. It is as if we were delineating a plane of life, still invisible but already constructed inside our consciousness. In addition to what one wants to tell, every graphic record contains an actual life, revealing qualities and characteristics that, when we read the drawing, inform us about more than what is being designed.

The hand takes on a life of its own and reveals contents from other universes, far beyond the blank page, in the proportions, in the chiaroscuro, in the scale. All the drawings that have been made throughout a lifetime, the books that have been read, the photographs, and the houses that have been visited are contained in the sketches for a project.

However, every author and every recipient of the architecture is the holder of unique memories that cannot be transmitted; objects that retain sounds, childhood photographs reproduced throughout life, creating homes, or mere machines for inhabiting.

Reason determines which are appropriate forms for living in a community; emotion contaminates reality with individuals' experiences of, who knows, other lives lived inside dreams and nightmares.

An architectural design houses two realities because one draws close to what is desired through the constructed work that does not yet exist but finds a place in the reading of the graphic record, which is contaminated by previous memories. There is no innocent gaze when contemplating the pre-vision of the home.

It is a complex, untransmissible synthesis, the visit to the architectural project. Without being, we already live what does not yet exist, but what technique and work will make the place of our future.

The "I" inhabits the project design, the model in white cardboard, the rendered images, complete and complex like the humanity for whom the soon-to-be work is destined.

To create is to accept the indeterminate response to black and white, the lack of determination of defined limits and certainties of style. Rather, it is working in a space between reason and emotion, in that limbo into which fall dreams and desires for a better future — in peace.

Designing is saying in words what one wishes to become. Designing is wishing to communicate with the other that lives inside the consciousness, at the back, where visions and memories blur into one another.

Regardless of the medium, what is fascinating in design is that one never knows whether what is recorded is read by the person who produces it in the same way as by the reader, for there are no repeated memories, and only the person who understands can see, and only the person who remembers understands.

Someone said one only gives a name to the things one knows, and one only knows what can be named. It is the same with architecture —only by reading the drawing of the graphic records of what will be inhabited, records read with the knowledge each observer has of other spaces he/she has memorized, only with this pre-consciousness of the constructed object can one effectively evaluate the project.

To each his/her own project, just like to each his/her own reality, sometimes tangible, sometimes unachievable, but always intimate and simultaneously public.

In architecture, the creative process is contaminated by the reflections of each person's vision of the world, the stage in life, the circumstances of the place where what is being projected will rise up, and of the way that someone's gaze, from outside the project process, imagines the work that does not yet exist, but which will have color, substance, light, and shadows bathing individual objects that have been inherited from somewhere, making the ancestral memories present, accompanying familiar, everyday odors and sounds.

The design makes possible this pre-vision, this traveling in the imaginary and the hidden world beyond consciousness, a journey based on lines and forms, volumes and empty spaces, upright cardboard compartments, surroundings bathed in faded watercolors of polychromed stucco.

The project design brings the imagined closer to the constructed through abstraction, as if the datum points, notes on the materials, the floors, cuts, and elevations could occupy three dimensions, infused with the slow(ed) time of someone inhabiting the house of their dreams.

Because this is an abstraction, what is not understood becomes intelligible in the sketch, in the

montage, in the rapid drawing of a perspective, where samples of colors and materials meet. It becomes real through the words of whoever invents this fiction, even if only in the desire to become architecture.

The word of whoever does architecture is the design, the sketch open to the interpretation of whoever listens, seeing the drawn record inhabited by the life that it will contain when the work is raised up in the landscape, waiting anxiously to be interpreted and, thus, concluded in Place.

That place waiting for anonymous, intimate everyday life or, perhaps, that exceptional place of pomp and displays of power is only achieved when the relationship between whoever inhabits and what is being inhabited comes to an end. Presents that construct futures and are envisioned in pasts that archaeologists and poets will describe in texts read times without searching for the truth of the constructed fact.

When the lifetime of humans has passed, there will remain ruins from all the ages that accompanied civilizations, generations, and peoples, so that those who will live in a distant future may record and interpret, after their fashion, what the remaining architectural design means, and so that new futures and new sounds of children playing act on those ruins.

For the elderly, the place for maturity, memories, weighing up, perhaps the dementia that is no more than a break in a certain order and the recreation of the real in a dimension different from the here-and-now, just like someone who lives in the family home again and is once more an infant.

When we re-read Peter Zumthor's *Atmospheres: Architectural Environments — Surrounding Objects*, the composition of the materials of which the house is constructed takes on a primary, primordial dimension, or whoever, in dialogue with the conceptual form of the space, constitutes the transposition between what is imagined and what is real, lived, decadent, a ruin. The longevity of the materials in architecture tells the story constructed by the author and interpreted by generations of families that wrap it up in records of usage, layer upon layer of paint, faded wallpaper, but in which each act of the architect and the craftsman is fixed, for some eternity or otherall time.

Intervening inside architectures that already had their useful life span is a challenge; past, unspoken experiences, and hopes of smiling futures intersect in the same snippet of space.

However, records of past lives determine how the characteristics of the project appropriate the spaces formerly lived in.

Even if the future appears innovative and cosmopolitan, such a transformation of the ruins carries ways of living in its time structure with which the new one will coexist.

Nothing is lost that was already lived before, in past decades — rather, what restoration brings in terms of transcendency is the persistence of a liquid atmosphere, of past thoughts, that will coexist with the very new life that will be lived.

2 RUINS

To restore is to operate with memories and dreams. With the imagined memory of what was, in other times, the everyday life of others who have departed, and with the dream of the future lives of those who, with no knowledge of the past, will live alongside their new contemporaries.

It is from the dialogue between these two fictions that the project design unfolds. By manipulating forms, proportions, interspaces, and ceiling height, it produces contents that will come into being in atmospheres with sounds, smells, rays of light and shadows made of the transparencies of windows peeping out onto gardens with hydrangeas and orange trees, wooden portals shutting in the intimacy of the house, from the outside, full of terraces and slopes.

Teaching people to produce architecture means listening to the inner silence of each of those who learn the art of being an architect. More than technique, more than science, it is the destiny of creating magical places with room to be born, live, and die with humanity, places built out of the matter that belongs to nature which to nature shall return, when they fall into ruins. Archaeologists will ask what life was like and the dreams of the people who built such labyrinths.

Research into the destruction of the many pasts constructed by architecture and the city, overlapping lives, footprints left on paving stones, and unfinished walls entail respect for what has already existed and courage to face what one proposes to become, and this in a time that does not stop, which amasses the history of humanity in objects and pieces of homes where lumps of stucco preserve the colors and designs of ways of life that have been lost in time.

Teaching people to produce architecture through the project means putting the other in the place of the dweller, with the daily rites and rituals of the calendar and in meaningful places, so that life may pass, contradicting the haste of someone who consumes, unthinking, with time to dwell alone in the company of spaces filled with objects imbued with memories and windows opening on to familiar landscapes.

We have to invent, for everything, the place for the chair, the sofa, the stool, or the section of floor, where we can stop and think about the day that has just passed, and how to keep, at the heart of our being, the impression of the unique experience of living one day at a time, in the end filling life with

maturity and serenity, peacefully contemplating the future.

3 FINAL CONSIDERATIONS

Thus, the creative process encompasses a duality that always takes shape with the presence of a pre-existence, either real or imagined, since the place leads to a destiny, and the longing of this destiny to be inhabited, as in Bachelard in the mystery of the ancestral home.

Discovering in every would-be author the raw material which along with technique constructs the narrative for the construction of the architecture, involves the sensitive domain of theory and history, as well as that of the humanities in general, for it is the totality of the being that is summoned for the task of the project.

The life of civilizations, awareness of the world where curiosity roams in search of appropriate solutions, in time and place, transform the teaching of architecture into a quest for the meaning of life through the creation of works that, ranging from the banal to the exceptional, consecrate that quest and affirmation of the place of the individual in the world of his age.

Making architecture in this day and age is an affirmation of humanity in all its complexity, contradictions, and search for balance, never forgetting where it comes from to glimpse the path it will follow, sometimes shrouded in mist, in uncertain times of crossroads and mirages.

It is a question, with the awareness of the I, of us, of the other, drawing on what has already transpired

and taught as a lesson of life, of creating, with good sense in the use of resources and generosity in the creation, a house in which to live and to leave as a memory for those to come, from an era where Time seems to have stopped, and everything has been called into question.

Contemplating, in these uncertain times, the ruins and their design constitutes matter for reading new paths, where the connection between the past and the future is made out of presents guided by ethics and the awareness that today is already tomorrow and architecture endures in order to show, in its walls and rooms, in the furniture and adornments, echoes of the lives of unique families that will never come again, among children's play and the smiles of the elderly, memories that stick to the material and perpetuate the place of humanity in the world.

There is still room for hope.

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Pedagogy in the architecture teaching process: Two unique examples in a Master's final exam—creating through mind and emotions

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ABSTRACT: This work addresses the stimulating link between two brothers – both final year architecture students – and a teacher/supervisor at the Lisbon School of Architecture, Universidade de Lisboa, during their work for the Master's final exams. This interaction had deepened the hypersensitivity of both students, transmitted in a powerful representation of their ideas, under the aegis of the emotions generated in mental processes that resulted in the creativity of the freehand drawing and new graphic representation systems of spaces through computing. The supervision had various didactic and pedagogical attention concerning the consideration given to alternative cultures and creative responses derived from the specific traits of the different generations in the course of the varied processes of criteria and development of the work. Based on the different dispositions and procedures between the three players, identical paths were observed, which became the common denominator for the work to run smoothly. It was not about any teaching-related utopia or hallucination, but rather about their common work to create extraordinary architectural solutions through the creation of the mind and emotions. The result was the highest grade for both of them, three awards in prestigious architectural competitions, and currently working at one of the most recognized contemporary Portuguese architecture firms.

Keywords: Pedagogy, Master's final exam, Creation, Emotion, Mind

1 INTRODUCTION: NON-CONFORMITY IN ARCHITECTURE EDUCATION

This work addresses the stimulating link between two brothers – final year architecture students – and a teacher/supervisor at the Lisbon School of Architecture, Universidade de Lisboa, during their work on their Master's final exams. During the academic year when, as a teacher, we followed the path of these two students, it was subsequently understood that there were some curiosities and, above all, particularities that could stimulate the supervision of their Master's work and serve as a case study for later examples. These characteristics gathered from the students' part the singularity of both being brothers and, despite having a small age difference, having studied in the same year and the same class at the Lisbon School of Architecture, Universidade de Lisboa. There was a perception of enormous healthy competitiveness between them during the classes due to the drawings they made incessantly at a high-quality level.

However, the virtuosity with which they exposed their ideas was, at times, asymptomatic of the specific discipline of architecture. Rather than bringing them in a directed approach to the canonical

alignments of academic teaching, an attempt was made to be as eclectic as possible, leading to the creation of spaces through their own minds and concrete emotions, without feeling misaligned with other colleagues.

We interpret the difference in sensibilities as an advantage without exclusions or constraints so that the purpose of programs and projects suited to their intentions could emerge. Thus, their own ideals and generational stimuli were added to the canonical understanding of the teaching of architecture: a creative imaginary, which a priori does not share the reasoned precepts of the academy, to present an architectural object in a final Master's thesis. Usually, these programs are more established and secure, such as residential buildings, museums, schools, sports halls, or auditoriums. For these two examples, however, more alternative programs were sought, suitable to the students' way of being, seeing the world and things, meeting the objectives reached and intended by the teacher. We sought to go beyond the good formalization and consequent finalization of the desires in finishing an academic step. That is, feeding the students' aspirations in distinctively finishing their work, resorting to the emotions generated by the mind to create something different from

the panorama we are used to in this type of academic experimentation; the search for a configuration that navigates between the breadth of utopia and the boundary of the rule (Rajchman, 2002, p. 122-123).

2 THE APPROPRIATE CHOICE OF PROGRAMS FOR THE NEEDS

The first step was for the students to study together with the teacher what would be the appropriate project brief in order to choose the program that best suited their wishes and needs. Through numerous conversations, approaches to case studies were established that avoided the classic examples of architecture and even sought other visual influences suited to the imagination and creativity of their generation, such as the graphic and visual influence of video games and graffiti, usually not used as inspiration for a student.

Moreover, the teacher carried out an exchange of information more related to the visionary and avant-garde panorama of architecture so that the result would be very plasticizing and with a strong mental and creative component, to generate an intense emotional charge through its visual impact.

The programs chosen for the two projects would have to correspond to a spectacular thematic, which would meet an ambitious visual impact without getting into eccentricities. They would have to correspond to a program where the conception and rationality would walk in a single purpose, and its impact would generate a healthy conflict with the established architectural aesthetics. Other stimuli were also sought that would in some way criticize the dominantly institutionalized structuralist methodology. This combat controlled through the discipline and didactics inherent to the teaching of architecture has as a great objective: to rehearse experimentation formulas with the students, to lead them to a capacity of ambition and audacity to their future professional life; however, always respecting the main plan of architecture, which is the improvement of humanity's life in the planet and vice-versa. It is a criticism of the method commonly used in these works (Feyerabend, 1993, p. 216-229).

3 METHOD AND COUNTER-METHOD

The common support for communication between the actors was hand-drawn drawings, loose texts, other desires, and even healthy whims because the teaching of architecture should take into account a transversal pedagogy to all forms of art and human expression, without, however, neglecting the objectives predisposed to a future architect.

Still, strategies different from the methodologies used in these kinds of exams were sought, uniting the abstraction of utopian narratives with a vigorous

aesthetic, where the evanescence of utopia clashed with the intention of a lasting thought. In this way, creative skills that could exceed the limits of the students' intellect were united through books and literary narratives, where the absence of a figurative image allows the imagination to go a little further than what is intended. The existing contents in several classical authors, such as Aristotle, Seneca, Thomas Moore, or Nietzsche, allowed the students to have a sequencing that would provide an even greater extension to their imagination. This idealization was taken into account as a device that created distinct systems, although generated in a single ingenuity that sparked in very unusual, although feasible, projects. This feasibility starts with the choice of a method that would result in a device, represented as the plot of an action, in which its development is the narrative contained in the program and, lastly, the outcome is the materialization of the final Master's exam in a document, in the Aristotelian sense of the term (Aristóteles, 2011, p. 48-51).

We deliberately deviated from the methodology commonly used in this type of exam, where the analytical and sequential part replaced the free component of creation, conceived through the emotions originated by the mind. The mechanics generated through cumulative teaching directed only to architecture did not enter into account here, because the idiosyncrasy inherent in these students' imagination would condition them if they entered into a calculative, algorithmic, and sequential process, so much as what happens nowadays in the world of teaching in general and in many architecture schools in particular. To determine creativity, the learning is of creations and not a rule of creation in the sense that Wittgenstein predicted would happen in learning today, through pedagogies based on the understanding of an academic method based on the repetition of canons (Wittgenstein, 1998, p. 20-24). The proposed pedagogical itinerary was to go through the unusual to enter the unheard; to connect the concept of aesthetic appreciation in an academic exam with this specificity through its method and its own destruction, so that in this way, the hypothetical is transfigured, becoming revelation.

4 UTOPIA OF POETICS: FROM DREAM TO REALIZATION

A function was created, where the thesis supervisor always tried to encourage the maximum enthusiasm in the work developed by the students, in view of the different aptitudes and understandings about architecture and the architect's role in the world, without segregation. There was an experimentalist didactic enterprise, where the intention was to expand the creative capacities through the mind and emotions during the different processes. Not only were these communication procedures assimilated immediately,

but they also proved to be very useful in this case in order to understand right from the start the best path to follow. This pathway began with the instructor taking care to reach the information and cultural universe acquired by the students, articulating and organizing it through the pedagogical context of teaching. It began with the perception and understanding of the circumstances that lead them to solutions sometimes misunderstood due to the generational gap and the new technologies applied on the planet, which have transformed everything. It began with encouraging students by creating imaginings that, through their minds and emotions, determined the will to responsibly and consciously realize their emotional imagination. An idea or a theory should not be purely and simply instrumentalized, nor impose its verdicts in an authoritarian manner; it should relativize and domesticate itself. A theory should help and guide the cognitive strategies conducted by human subjects (Morin, 2002, p. 34).

5 THE SPIRIT OF TIME: A NOOLOGY IN THE TEACHING OF ARCHITECTURE

Ever since humanity exists, noology has been part of its understanding and consequently the relationship of the human being with the world around him. Due to its operability, the teaching of architecture has distanced itself from these phenomena to enter a taxonomic and calculating path, putting aside the phenomena inherent to the artistic expression of emotions through creativity. The sphere of things and the spirit is an integral part of us; that is, despite science coming closer to art, the productive progress of the imagination has adopted independence and before these phenomena have made itself superior, putting the "noosphere" aside: space where the things of the spirit cohabit, such as allegories and fables. Without phenomenon, the criterion becomes only a fact, and the symbolic charge of things fades. The idea of a building being only a well-executed construction with harmonies that obey canonized standards can be harmful when the canons become merely executive functions. In this way, the sensory factors that determined it are lost, which are the perception of the space created by the human being and its relationship with nature: transcendence (Husserl, 2000, p. 60-66). In this specific case, an encounter was sought within this field, unfortunately increasingly absorbed by the parable of calculation and aesthetic alignment.

6 PROGRAMS CHOSEN THROUGH THE CREATIVITY AND EMOTION OF THE PRESENT TIME

The teacher guided and decided upon the programs that took into account processes and sensibilities

adapted to the ethical plans of these two students. However, he always proceeded in a direction where poetics always had a primordial reference in the works. That is, he interpreted the ethical basis of the program as the support for the aesthetics of the architectural design, grounding the moral of the projects and even linking them unconsciously, given the singularity of these students being brothers, being in the same class, and in the same course, as previously mentioned.

The plot in both works has an explicit tragic component, accentuating the figurative expressionism of their forms. However, the intense plasticity of their designs contains functionalities that, although complex, are objective because the constructive possibility and the functional organization in each of these works are real.

The relationship between death and desolation, with the inseparable tragedy inherent to both, were two constant concerns of these students expressed through the numerous conversations. Therefore, the teacher chose the same theme, although differentiated in two different but related programs: a vertical cemetery and a control tower for forest fires.

The Tower was also an invincible will among the three involved in the process; hence it had to pass through the formalistic filter of the built verticality. That is the totemic expression of the tower as a means of sustainability and distinction in the territorial surroundings.

6.1 *A vertical cemetery*

"Death and the idea of it has always frightened and fascinated me. That is why I had to find something around it" – conversation with Rui Taveira. Student Rui Taveira wanted something that would relate to the theme of death in architecture. He opted for the archetype contained in a cemetery, but whose program corresponded to an idiosyncrasy expressly interacted between the student's imaginary and the various references oriented by the teacher, to instigate the ambitions of both in raising creativity to the level of emotions generated by the mind. It would have to have an expressly architectural and meaningful image, hence choosing a vertical cemetery – a tower. By introducing a sepulchral tower, the intention was to discuss the subject and not to hide it, as is usually done. The aim was to expose a spirituality that is usually hidden due to the sensitivity of the theme itself. "Has the time finally come to reflect on the design of a place that longs for a new image?" – conversation with Rui Taveira.

6.2 *Forest fire control tower*

"I wanted to create a solution that promoted the maintenance and preservation of forests and their

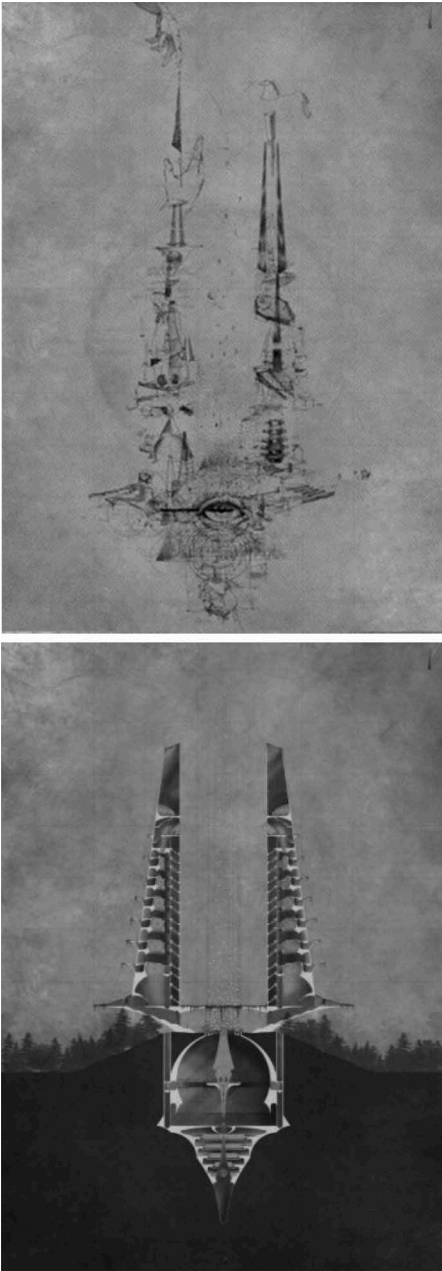


Figure 1. Vertical cemetery, draw, and section (Rui Taveira, 2019).

defense against the scourge of fires, which would revolve around a cloud” – conversation with José Taveira. In this work, student José Taveira designed a control, prevention, and forest maintenance tower, which could be repeatable in one area with the

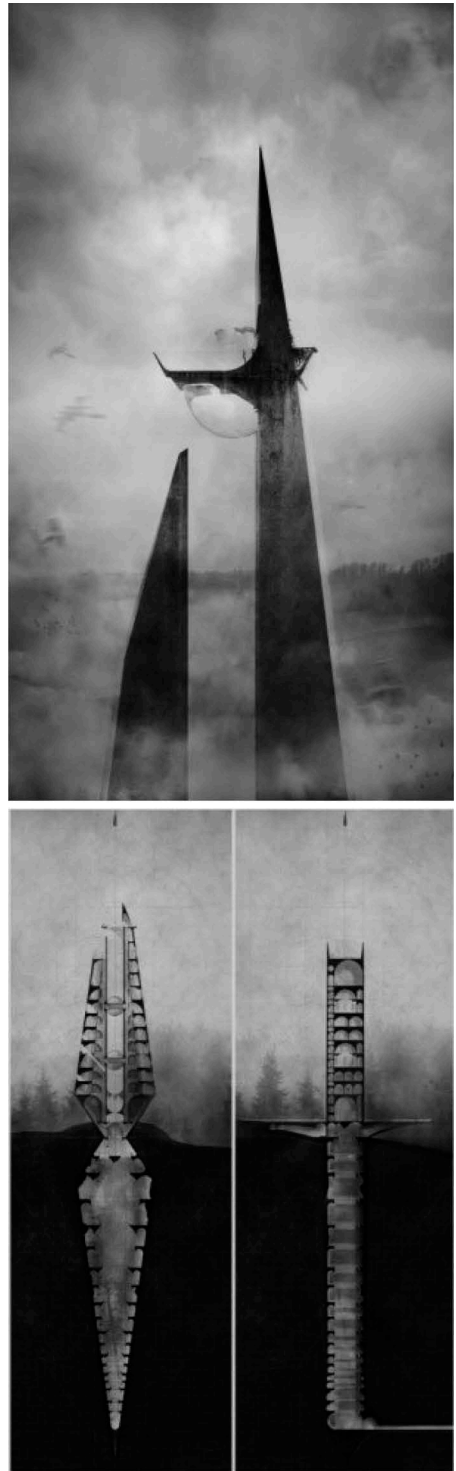


Figure 2. Vertical cemetery, render (Rui Taveira, 2019).

highest tree density in the country and where a fire of overwhelming proportions for the region occurred: Pedrógão. The program was extremely sensitive and ambitious, as it comes from a moral assumption of ecological salvation and maintenance of fauna and flora. This salvation is marked again by the redemptive symbolism of a building raised vertically on the horizon, which prevents the tragedy of a fire. Interestingly, this tower has the particularity of being built on a water line. In this way, it collects water into a spherical prevention tank. It also can generate artificial clouds, and the rain produced in them will artificially put out any fire, increasing irrigation if necessary. “Our Island of Utopia continues to deserve all our concern and debate. It is up to us, as beings of the present, to fight for such a future” – conversation with José Taveira.



Figure 3. Forest fire control tower, render, and sections (José Taveira 2019).

7 CONCLUSION AND RESULTS

The perception and contextualization of knowledge are key problems of contemporaneity. The student's commitment to some subjects of his interest has to be rehearsed to be able to understand to what extent he is willing to continue. In this specific case, the concern navigated between climate issues of the environment on the planet

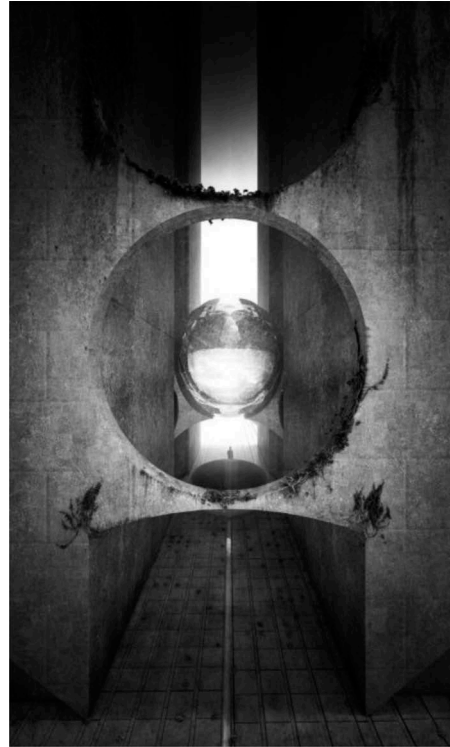


Figure 4. Forest fire control tower, render (José Taveira 2019).

and an idea of spirituality, not in the religious sense, but in a personal way; that is, an ethic to create spaces.

The apprehension in developing a disparate idea, however bizarre it may be because the student is afraid of ridicule when transmitting his will, cannot be repressed by the teacher because the idea of creating something through the mind, just by existing, contains emotional value. It is up to the teacher not to reject but to guide the student. And guide how? What is the process? Is there a formula to generate creativity? No, the only formula is to extinguish a priori the prejudice of negation and, together with the students, the risk to break some taboos, which may harm any choice, without, however, slipping into a dangerous path of irresponsibility.

The responsibility comes from the sensitivity and attention that the teacher will have to have in relation to the plans of his students and transmit comfort, so that paths may be found through culture in its endless variables and coincidences – ranging from music to literature, cinema, dance, sociology, anthropology, algebra, physics, chemistry, mechanics, biology, among others. Relationships are established to make the work rewarding and ingenious.

To conclude, through this methodology conceived in the connections created through the mind and emotions, the students received the maximum grade by unanimity of the jury for their final Master's exams:

(www.repository.utl.pt/handle/10400.5/18282) (www.repository.utl.pt/handle/10400.5/18287). Furthermore, they received two honorable mentions in the most prestigious competition that rewards students and teachers/supervisors, Archiprix Portugal:

(www.archiprixportugal.org/feita-de-memorias-um-lugar-na-colina/) (www.archiprixportugal.org/devaneio-da-agua-entre-o-real-e-o-ideal-imaginado/), and an international prize – Unfuse International Architecture Thesis Award UniATA 2020/Third Edition – Best in Region Europe and Russia: (uni.xyz/journal/uniata-20-result-story-desc-pstronguni-1). Finally, they were selected to do their professional internship in one of the most important Portuguese contemporary architecture firms: Aires Mateus Arquitectos.

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Rehabilitation or multiple rehabilitation? Rehabilitation as a subjective process by different ways of seeing – and ‘wanting’ – to transform and signify the world

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ABSTRACT: Recognizing as fundamental the legitimacy of subjective and free creativity in any Architecture of Rehabilitation, that is, as an operational reality that in the limit may have as many ways and purposes to do as its potential players, an attempt is made to justify an ‘undisciplined’ idea of this architectural field, a conception that implies that we speak not of Rehabilitation, but multiple rehabilitation. Thus, despite all the identity and mnemonic risks that arise in these areas due to the tacit omission of limits, risks which, however, we believe can be controlled by intelligent mediation, this reflection defends an open and plural vision of the so-called Rehabilitation because it will always have to be a free and creative act of Architecture, either because in the practical realizations of some Urban and/or Architectural Rehabilitation, to exist, nothing will really remain in them as before.

Keywords: Urban Rehabilitation, Architectural Rehabilitation, Architectural creativity, Architectural subjectivity, Architectural discipline

If we recognize as fundamental and legitimate the right to subjective and free creativity in any ‘true’¹ Architecture of Rehabilitation², that is, as an operative reality that in the limit can have as many ways and purposes of doing as its potential performers, as we can then frame a synthetic and generalized conceptualization, how then can we fit into a synthetic and generalized conceptualization, as is often sought and commonly accepted, a single idea of Rehabilitation? Or rather, recognizing the differences in objectives and *modus operandi* that have potentially legitimized themselves, as the plural reality it is, programmatically, can we or should we talk about Rehabilitation or multiple rehabilitation?

Indeed, just as these simple questions, evident in the ‘multiple truths,’ immediately confronts us with the impossibility of accepting one easy and immediate response to a common but limited univocal and disciplinary conceptualization, for, with all certainty, in it, we are confronted with the evidence and inadequacy of this

restricted and self-centered conception. Because we defend the right to an ethical but subjective difference, because we do not believe in a world made by ‘supermen’³ who use its vertiginous operational possibilities for achieving an ideal of absolute passivity, becoming the example of a righteous ethical conscience devoid of any political dimension (Eco, 1964/1991, p. 28), it has to be said that we should only be talking about multiple rehabilitations, a designation which, conceptually by its plurality, dilutes the binding unit of potential disciplinary content, assuming here that the matrix concept of discipline, as stated by any Portuguese-language dictionary, is a homonymous term inherited from Latin that links an idea of obedience and submission to rules.

Thus, if tacitly and undisciplined, we deny a limited disciplinary autonomy to any Urban and/or Architectural Rehabilitation - for we argue that this is just a more specific form of Architecture, because for us, what exists, in this restriction, is a proper way of performing it on a place, which by its cultural qualification implies the weighting and balance between the creation of what we want to do and the value of a memory and pre-existing identity (Leite,

1. Accepting that an intervention of Restoration, that is, an intervention where the main concern is the replacement/maintenance of the totality of the pre-existence, does not fit this objectivation because its purposes are other.

2. Considering that this designation ‘Architecture of Rehabilitation’ includes obviously and without differentiations, because in its conceptualization are two sides of the same coin, whether the broad dimension of Urban Rehabilitation, or the more restricted and objectual Architectural Rehabilitation.

3. Specifically, in the original text, Umberto Eco refers to the ‘comic book’ Superman (p. 28), a character who is extrapolated here to a more general context of a potential cultural elite capable of controlling and effecting a hegemonic cultural vision.

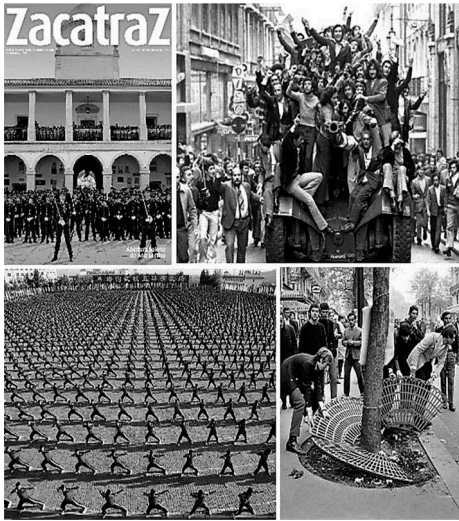


Figure 1. ‘Discipline and indiscipline’: cover of the magazine “Zacatraz,” opening of the academic year at the Military College (Colégio Militar), Dec. 2018; revolution and popular spontaneity on April 25, Lisbon, 1974; Shaolin Wushu Festival, Oct. 2012; violent protest of public order on May 68, Paris, 1968.

2019, pp. 100-101)⁴ – we are also confronted with the evidence that, conceptually, a Rehabilitation understood as a subjectively plural act, is objectively incompatible with strict disciplinary association, because, as factual Architecture, it can only be valid if it does not contain or passively submit, for the being cannot alienate the free will, inherent to fruitful creativity, to the protection of any unquestionable normative framework authoritatively disciplined.

In fact, as we have also supported ‘romantically’⁵ for us, Architecture, as a vast subjective territory, must always be understood more as a “diffuse sketch made of indiscipline, than as a unique and dogmatic disciplined definition” (Leite, 2015, p. 8)⁶. This concept also calls into question its potential univocal and authoritative objectivity, because of its tacit possibility and infinite diversity, that conceptually can even close an unlimited idea of inhabiting where the “act of inhabiting is the fundamental means as ‘Man’ relates to the

World” (Pallasmaa, 2016, p. 7)⁷, it is difficult to contain or subject to the normative obedience and rigidity implied by this terminology. Indeed, faced with this justified and conscious conclusion, to the initial question we answered as is evident by the choice and affirmation of a Rehabilitation understood in a multiple and legitimately plural sense, therefore, in addition to removing rehabilitations from the matrix bond imposed by a strict and dogmatic disciplinary reference, which would always legitimize it based on any regulatory framework, validates it also as an effective multiple and kaleidoscopic reality. That is, it legitimizes it as a potential and fertile undefined territory where, as should happen in any authentic architecture, or their matrix subjectivity and creative freedom, because “only with the abandonment of the concluding-static concept of being appears on the horizon the true dimension of hope” (Bloch, 1959/2004, p. 7)⁸, in a limit, everything can arise and undisciplined happen.

However, although we validate this terminological and conceptual meaning of multiple rehabilitations, where, for obvious reasons, the coherence of the free plurality of the framework is evident, it has to be said, that paradoxically if this normative dissolution opens an infinite horizon of hopes, complementing, by the dissolution of a prior referencing of values, also confronts it with the uncertainty of a significant neutral ambiguity, because now it no longer has normative values to overcome or even to infract. In other words, by rejecting the regulation, there is a tacit risk of falling into an amorphous and insignificant cultural void, unless, and this was, in fact, the ‘true key’ with which the romantics opened the door of our contemporaneity, by the belief that individual freedom is infinitely creative. Though ‘ironic and self-conscious’⁹ of itself, we can ethically redeem and potentiate a true liberation of the World.

Indeed, beyond romantic creed, which was based primarily on the transcendent power of creation and individual faith, because “the creative imagination (*phantasie*) transfers to us the future world, by intensification, or by metempsychosis” (Novalis, 1798-1799/1989, p. 254)¹⁰, this is a programmatically way of believing in the other.

7. “El acto de habitar es el medio em que ‘uno’ (neste contexto interpretado por ‘Homem’) se relaciona con el mundo”.

8. “Sólo con el abandono del concepto concluso-estático del ser aparece en el horizonte la verdadera dimensión de la esperanza”.

9. Accepting that the romantic irony’ can be assumed as the capacity of a creator, although sentimental and genuinely involved in his individual, subjective and programmatically transcendent’ creative process, voluntarily and momentarily excluding oneself from one’s work in order to obtain an outward view of it, a view which is ethically critical and introspective and which enables one to be aware of the effective value of one’s own creation.

10. “A imaginação criadora (*phantasie*) transfere para nós o mundo futuro, ou através de uma elevação, ou através de um aprofundamento, ou pela metempsychose”.

4. All translations are the author’s except where otherwise stated. “Pois para nós (...) o que existe” nessa restrição “é um modo próprio de a realizar sobre um ‘lugar’, (...) que pela sua qualificação cultural implica a ponderação e o equilíbrio entre a criação do que queremos fazer e o valor (...) de uma memória e identidade preexistente”.

5. As we defended in our doctoral dissertation (Leite, 2008), it can be argued that architecture cannot be understood as a discipline, for it must be, romantically and as a potential total work of art, undisciplined and extended to life itself.

6. “Esboço difuso feito de indisciplina, do que como uma definição disciplinadamente única e dogmática”.

Or rather, in a post-modern way, to believe in the difference and freedom of others, because the refusal of the normative opens the way for all differences, subjectively both good and bad, which may consequently be done. About this trust in the World, as recorded here in the words of Jean Nouvel in response to Jean Baudrillard, which questions the limits and meanings of architecture by the exceptionality of the architectural object¹¹, so we can no longer sleep in it, Jean Nouvel answer, “trust Frank Gehry to surprise you” (Baudrillard/Nouvel, 2000, p. 77)¹². That is, widening the semantic potential of this response, trust in the potential creative freedom of others, because it implies the acceptance of the interpretative tension of the poetic message¹³, to build a new world creatively and surprisingly, the transition which, in the final analysis, is certainly much more democratic and inclusive than a rigid and authoritarian disciplinary vision.



Figure 2. ‘Surprises and inexplicable things: Frank Gehry/Vlado Milunić, ‘Fred & Ginger - Dancing House,’ Prague, 1996; Norman Foster, rehabilitation of the Reichstag’ - view from inside the dome, 1995-1999; Hondelatte Laporte Architectes, Giraffe Children’s Center, Paris 2012; Alex Chinneck, by Sliding House’, Margate, Kent, 2013.

Indeed, for us, it is so. However, we are aware that this democratic freedom, when focused on the primacy of broad individual subjectivity, entails obvious collective risks of ‘cultural deviations and deformations’¹⁴ seen as marginal. In the specific case of an intervention

within the so-called Urban and/or Architectural Rehabilitation framework, these risks may lead to the loss of identity values held in a particular context as physically and immaterially irreplaceable. However, despite this undeniable risk, a risk which, if not prudentially mediated, will even be a predictable certainty, in the face of the potential of freedom, it leads us to the programmatic choice of this promising path because we believe that if this path is ethically and voluntarily self-controlled, as should happen in a society made of free citizens culturally and politically conscious, a society that tends to be ‘parity’¹⁵ and democratic which is where we want to live, this path is for us much more fruitful than it will be or would be its most restricted and authoritarian alternative.

Therefore, by these cultural, ethical, and actively political convictions, the answer to the simple question we initially asked, whether we should be talking about Rehabilitation or multiple rehabilitation, tends to be aimed not only at a more operative sense of a specific architectural framework, as well in a broader sense that relates to the way it sees itself and how we want to mean the World. In fact, this is about clarifying where we want to live and inhabit, accepting that this decisive but effective differentiation conceptually divides the world view into two paradoxically complementary and antagonistic great halves. The first, which exists since the World is the World, is made by the law of the strongest, and that was matrix to the Classicism of the Old Regime, which consensually or tyrannically determines the imposition of a disciplinary and canonical tendency’. The second was ‘emancipated’¹⁶ with the rejection of that same Classicism by the romantic vision, which revolutionarily refuses to subjugate itself to any dogmatic imposition, a condition that is evidenced by the search for an “Art absolutely free, where the poet’s arbitrary is above all laws and is governed only by the vacillating law of his freedom so that there is always another

the attribution of value, or, rather, a binding connotation, or rather, a binding connotation, to what we consider as ‘deviations and deformations’, for these will always be affirmations or new affirmations of ‘other’, whether these other cultural expressions of cultures regarded in a particular environment as marginal, or other individual expressions which, by their uniqueness or even potential innovation, also do not integrate at a given moment in the culture that contextually is in a dominant collective way.

15. In fact, more than just ‘egalitarian’, because identically it is extremely reductive to be simply equal, we believe in a parity society, that is, a society in which peers, without nullifying their differences, have real autonomy to think and act in their own independent way.

16. Of course, this second half of the world has also existed since forever, because to an Apollonian vision always opposed the excess and the disorder of a Dionysian vision; however, the real legitimization of this refusal to the normative, was only culturally called into question by the ‘German romantic’ of the Jena Circle at the end of the 18th century.

11. Specifically, Jean Baudrillard refers here to the Guggenheim Museum in Bilbao (Baudrillard/Nouvel, 2000, p. 77).

12. “Fais confiance à Frank Gehry pour te surprendre”.

13. Here read creation, because this has been the term, we most used in this reflection.

14. This raises the tacit problem, which is truly impossible to solve without the legitimization of a ‘truth/culture dominant,

law to transgress” (Coelho, 1987, p. 181)¹⁷. That is, a clear statement of conceptual indiscipline that clarifies the programmatic confrontation between a univocal and disciplinary vision, and let us not forget that the Modernity of the twentieth century was positively opposed to a ‘weak and decadent’¹⁸ Romanticism of the nineteenth century, and an effective tolerant and libertarian consciousness of post-modernity, as far as we are concerned it is the most appropriate of our time that we want to matrix parity and democracy.



Figure 3. ‘Authoritarian views and more parity and democratic views’: Albert Speer and Adolf Hitler together with the ‘German Pavilion’ model for the ‘Paris Universal Exhibition’ of 1937; Anca Petrescu, ‘Casa poporului,’ Palium of the Romanian parliament built during the period of the dictator Nicolae Ceaușescu, Bucharest, 1984.1990; Archigram /Ron Heron, “Tuned Suburb: Oasis”, 1968; Ryugyong Hotel in North Korea Pyongyang, 1987-1992; Superkilen/Topotek 1 + BIG Architects + Superflex, realizar espaço público integrador’, Copenhagen, 2012.

17. “Arte absolutamente livre, onde o arbitrário do poeta está acima de todas as leis e apenas se rege pela vacilante lei da sua liberdade, para que haja sempre mais uma lei a transgredir”

18. It is undeniable that the main argument of the 20th-century positivist Modernism, paradigmatically represented by the so-called ‘Modern Movement’, was established as a counterpoint to a so-called decline of the ‘fin de siècle’ of nine hundred, characterized either by disbelief and maladjustment to the industrial world that was then imposed, or by a dogmatic eclecticism that, little or even nothing, already had to do with the open and tolerant matrix of Romanticism emerging at the end of the eighteenth century.

So, to the initial question, we answer how we consciously see the world; that is, obviously by the non-dogmatic affirmation of a plural vision made of multiple rehabilitations, a vision where a disciplinary process cannot exist and where, as implied by the opening of mythical Pandora’s box, hope is maintained and one must live democratically with others and with all the infinite evils of the world. These evils do not fit into our way of seeing and meaning the world, either by a strict cultural hegemony or by being made of things that, by their strange or uncomfortable novelty, we do not yet control or sometimes even know. Therefore, by the inevitability of change, in our understanding, we can only counteract an ethical and parity process made by values of consciousness and knowledge. In fact, those are maybe our only preconditions, or better and more tolerantly, our desires, and it is certain that fortunately, we will never reach total consensus on any operative effect of a so-called Urban and/or Architectural Rehabilitation, and here we say fortunately because the conclusive consensus is always a tacit condition of stagnation or death, because we recognize that, as Ernest Bloch tells us, as much as it costs us to adapt to change, that hope is not passive and must override fear, because “the essence is not past; on the



Figure 4. ‘Lisbon as a future’: ‘Casa dos Bicos’/José Saramago Foundation’ - exterior view and detail, 2019; Building to be rehabilitated for the creation of the Beato’s Creative Hub’ - “Start up Lisboa; is baking the Future. Here!”; 2020; two images of the generic city as a ‘democratic place’ of subjectivity and rehabilitation, 2019/2020.

contrary, the essence of the world is ahead” (Bloch, 1959/2004, p. 23)¹⁹.

In reality, and here it comes in a certain way to a confession, all of us who like identity and old things and a seductive heritage that involves us and contextualizes us, are always reactionary to strangely new and change, since by a tacit passive and conservative nature, in a more or less stated way, we instinctively seek to maintain ties of permanence with a subjective but already absent past that only imaginary is real. Or rather, with a fugitive past ideally fantasized, because we tend to mean it with blind benevolence that tends to forget their ‘factual miseries’²⁰, because, as Eça de Queiroz told us, the ‘raw nakedness of truth always imposes the diaphanous cloak of fantasy.’²¹

However, and this is what in this plural affirmation of rehabilitations’ is assumed as a central and programmatic, as we recognize the objective non-existence of the past, for it is immaterial and subjective, which is associated with the fruitful and creative inevitability of change because the World is always moving forward and the World we want is tendentially parity and democratic, this fact legitimizes the plural reason of our repeated response.

Therefore, despite all the risks of identity and mnemonics, for which we can and should make use of intelligent mediation, we will always have to affirm an open and undisciplined vision of the so-called Rehabilitation, both because it is and must always be a matrix for a free and creative act of Architecture, and because in the background, the practical mediations that we seek to implement in any intervention of Urban or Architectural Rehabilitation, can be seen by a whole range of globally hegemonic interventions, almost

nothing in them will be as before. Yes, let us be serious, and without hypocrisies, so it is. Be it for the great factual rehabilitations that are imposed today symbolically and morphologically to pre-existences, rehabilitations that can be traversed by an apparent continuity as well as by a media and radical spectacularity, both because the world that comes to replace and resign is already another, thus, factually, and identically, we always face a shadow of an idealized past – an idealized past with which we can want to dialogue through different rehabilitations, but which today, as inhabited support of another time and another life, certainly no longer exists.

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19. “La esperanza, situada sobre el miedo, no es pasiva como éste”.

20. In fact, we always tend to idealize the past, devaluing or omitting almost always, his achievements or ways of life are operationally recognized or rehabilitated, whether historical, socio-cultural, architectural, or other, it all that in practice this tended to really imply; that is, almost always tyranny and a deep social inequality, precarious living conditions (whether determined by health or hygiene issues) and extreme material scarcity, etcetera.

21. Paraphrase adapted from the celebrated passage of the novel *A Relíquia* by Eça de Queiroz, novel published in 1887, notable for revealing evidence of the tacit relationship between realism/naturalism and imagination/fantasy, confirmed at the end of this work’s prologue by the assertion that fictionalized reality arises – we say, always – “both embarrassed and stumbling on the heavy garments of History, and then freer and bouncing under the gaudy mask of Farce!” (Queiroz, 1987/2016). [“ora embaraçada e tropeçando nas pesadas roupagens da História, ora mais livre e saltando sob a caraçã vistosa da Farsa!”]



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Ambiguousness is an important element in architectural emotional space

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ABSTRACT: Space is the carrier of life and the inspiration of emotions. This chapter uses the emotional space definition and analyzes the shaping and performance of ambiguity in emotional space. Explain that architects not only need to use materials to create buildings but, more importantly, use emotions to create space. Only when emotion is regarded as the main factor that constitutes a space can we create an emotional resonance that can move human emotions. Bringing ambiguity into the architectural space forms a fuzzy space, which is also a transitional space or gray space. However, this kind of space has always been rooted in traditional Chinese architecture. In today's modern architecture, it also affects our lives, brings people different experiences and feelings, and affects people's emotional experiences. Because of the extensive use of ambiguous spaces in modern architectural design, it is more necessary to explore and understand this kind of space so that the research has a more practical significance.

Keywords: Emotional space, Ambiguous, Natural, Architecture, Spatial environment

Bernard Tschumi said in *Source Books in Architecture*: "If you really want to understand architecture, maybe you even need to attempt murder. The definition of architecture is not only its outer walls but also its behavior and plot." (Gannon, T. 2003). From another perspective, architecture is not a ruthless piling of materials such as bricks, tiles, sand, and stones. It is not only a material product but also a spiritual product. Space is undoubtedly the decisive factor that gives a building a spiritual meaning. Space itself is a vague concept, a kind of illusory existence because the existence and activities of people make space have practical meaning. Space is the carrier of life and the stimulation of emotion. After all, architectural space is the external expression of emotion. Architectural design should not create an entity that has never existed before with human intelligence, but more need to think about creating an emotional space that can move the human heart.

1 DEFINITION OF EMOTIONAL SPACE

"Humans use language to convey ideas, while art conveys emotions" (Noy, P., 2013). Emotion is a special form of people's reflection of objective reality, and it is also a kind of psychological response of people to objective things. The emotion

in architectural creation is the key factor that determines the success or failure of the work, and it is the indispensable soul that runs through architectural art. Without emotion, there is no architectural art.

From natural space to man-made space, it means the emergence of architecture and means that space has meaning for humanity. Different spaces give people different feelings of space. Therefore, whether an actual architectural space can express and convey emotions becomes the key. In a narrow sense, the space that can express emotions, infect the viewer, and convey emotional information is the emotional space. The highest state of space art is to reproduce space with emotion. Luis Barragán (1909-1988) said that probably the meaning is "I believe in architecture with emotions. The life of 'architecture' is its beauty. This is very important for human beings. If there are many solutions to a problem, one of the ways to convey beauty and emotion to users is architecture" (Ambasz, E., 1976). Therefore, in a broad sense, the space that can convey architectural beauty and emotion is emotional space.

2 THE CREATION OF EMOTIONAL SPACE

The creation of emotional space pursues an abstract expression of "meaning" and pays attention to the

influence of the base environment, climatic conditions, and customs on the building. The purpose of emotional space shaping is to express some concrete elements through the abstract things that people feel unconsciously, such as space proportions, openness and closure, space composition, the expressiveness of materials shaping space, and the quantity and direction of light in space. Such as tradition, locality, and history. Emotional space does not rely on the “form” of the space itself to move people but achieves this effect through the depth of space experience. The space experience is based on people’s thinking, from people’s experience of building and how to shape the space into a place to accommodate human activities. If it can awaken people’s inner feelings of space and memories of various initial experiences, it will make people have strong emotional resonance.

2.1 Emotional injection

The infusion of emotion refers to the expression of life reproduction to the architectural space through the architect’s subjective consciousness. As a special kind of production, architectural art is characterized by infiltrating the architect’s strong subjective factors into architectural creation and “materializing” into architectural works and their artistic images. Therefore, emotional factors such as the architect’s inner spiritual world, his/her feelings, emotions, thoughts, moods, wishes, and interests can be injected into the architectural space through the architectural creation activities.

Japanese architect Tadao Ando used a series of spatial combinations of different levels and scales (the relationship between humans and gods) in the design of the Church of the Wind in Kobe. The contrast of materials and the processing of light and shadow render to the fullest the religious atmosphere of a modern church built on the top of the mountain. He first used a long arched frosted glass corridor at the entrance as a passage from the mortal to heaven. People gradually transitioned from the real world to the mysterious unknown world through this translucent and semi-enclosed sky bridge. After entering the church, in the cold concrete-finished hall, sunlight from time to time is shot in from the large windows of the ceiling and the gaps in the walls, making the four walls of the church seem to be held in suspension by an unknown. The floor-to-ceiling windows of the huge inverted cross-shaped window frame conceal the tombstone-like clock tower in the green area. These unique space design techniques accurately express the illusion and reality, indifference and intimacy of the pilgrims towards God in the process of worship, and the remote and seemingly accessible ambivalence of the pilgrims. The window design of each part of the church can be completely

aligned with the expressions of the pilgrims at various times. The architect infused the space with emotion through the careful observation of life and skillful use of architectural technology.

2.2 Architectural emotional communication

Architecture is a material structure that entrusts human emotions. It contains human thought expression forms, and the romance of the form itself conveys different feelings of people for the media through the material. The form of architectural artworks is the material basis for architects to express emotions. The processing of function, form, color, light, shade and the combination of shapes produces a “significant form,” giving the architectural space a particular aesthetic significance. At the same time, it also has the attribute of carrying or conveying certain emotions. It can also cause corresponding psychological reactions and feelings such as grace, lyricism, enthusiasm, boldness, or melancholy. It can also express the architect’s specific emotions towards individuals, groups, society, and nationalities, which constitutes the communication of spatial emotions.

The building extension function of the Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders (Figure 1) combines the irregular main building unit with the exaggerated architectural space, giving people a strong shock. The architect first used the dislocation and tearing of the wall, including the treatment of irregular spaces, making people feel very chaotic in the soul, using the architectural language to reflect a disorder, chaotic, depressed, and dark time and space. Next, the architect used colors to enhance the atmosphere. Using large areas of black walls, he contrasted smooth and rough wall textures and contrast of different rusty walls so that people’s moods vary from dignified to heavy to sorrowful. Space arouses people’s different associations and memories. The architect creates an emotional communication with the audience by creating a sad spiritual place and guides the audience to think about historical events.



Figure 1. Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders in China. Credit: The authors.

2.3 *Resonance of architectural emotion*

The resonance of spatial emotions is formed through two-way emotional transmission: on the one hand, emotion is expressed through the subject of architectural creation, and on the other hand, emotion is experienced and generated through the appreciator. At different times and different moods, people have different feelings about architectural space art. Appreciators feel the atmosphere of architectural art through emotions, participate in it, and, simultaneously, affect the perception of architectural art and make it resonate.

The interior of Tadao Ando's Church of Light, through a strong contrast between light and dark and the radiant "cross," writes a space full of spiritual communication between humans and god. The ingenious combination of light and shadow in the entire building produces a potent metaphor. Furthermore, the building space provokes an emotional resonance so that the believers can not avoid the sensation that God is by their side, giving them redemption and enlightenment.

3 RESEARCH ON HUMAN'S PREFERENCE FOR ENVIRONMENTAL SPATIAL FORMS

According to psychologist William James (1842-1910), it is not that people cry because they are sad, quarrel because they are angry, or tremble because they are afraid. Emotions are the most direct perception of human body changes, which means that if external stimuli cause certain specific changes in the human body, the perception of these changes is emotions (James, W., 2007). In the psychologist's opinion, human emotions will affect all our decisions and activities to a certain extent. Emotions play a vital role in our studies or work. So in the opinion of psychologists, if some people's emotions are easily affected by the outside world, then its first task is to ensure that they have a good mood and then proceed to solve the problem. The author believes that this is particularly important when creating architectural space. Designers can use compulsive methods to let the experience feel the space, thereby affecting the feelings of the feeler. The spatial characteristics related to environmental spatial form preference include four aspects: complexity, novelty, unexpectedness, and inconsistency. The complex composition of the spatial environment structure and the diversity of its constituent elements can also be called visual richness or visual diversity. Novelty refers to the degree of new things that have never been seen before in the space environment. Unexpectedness refers to the degree of the unexpectedness of the space environment. Inconsistency is the degree of inconsistency between a specific spatial environmental element and its surrounding background.

The survey shows that compared with manufactured spaces, people prefer natural spaces. The main characteristics of the natural space environment are: uncertainty, variability, self-contained system, soft and intimate, and indivisible. In the beautiful natural environment, people can get better relaxation and rest both physically and mentally, especially in today's accelerating urbanization and the accelerating pace of life. Therefore, people's yearning for nature is also increasing. Human beings are affected by innate and acquired factors, and their responses to the natural environment and scenery are also changing. At the same time, this preference for the natural environment is also affected by social habits. In the process of getting close to nature, humans seek out various experiences in the natural environment and relax their minds and bodies. This is the very trendy "green experience." According to relevant research results, whether it is an individual's self-report of the "green experience" or the test results of various physiological indicators, it is shown that: "green experience" can effectively relax stress, promote the cultivation of positive emotions, and benefit the treatment and rehabilitation of various diseases.

Therefore, when creating architectural space, we should consider this initial emotional need of humans into consideration. Humans' emotional preference for the spatial environment is in line with the needs of functional evolution. Our emotional preference is for environments that give us more opportunities in the process of evolution and enable our functions to perform. As Winston Churchill (1874-1965) said: We shape our buildings, and afterward, our buildings shape us (Resis, A., 1978).

The ambiguous space in buildings is divided into the ambiguousness of indoor and outdoor boundaries, the ambiguity of function, of the sense of place, etc. This article mainly discusses the ambiguity of indoor and outdoor boundaries because of the positive role of "green experience" space created through the ambiguity of architectural space.

4 THE AMBIGUITY OF ARCHITECTURAL SPACE

In modern architectural design, the use of such ambiguous space forms is gradually increasing, mainly appearing in an open or semi-open state. The philosophical foundation of Ambiguous Space is actually Buddhism and Zhuangzi's philosophy. Buddhism takes "emptiness" as its theoretical basis. "Empty" and "Dharma Kong" are not nothingness, it is an indescribable reality. At the same time, things have not only an empty side but also a non-empty side. This actually refers to an intermediate field between existence and non-existence and between right and wrong. When implemented in architecture, it is an ambiguous intermediate area between privacy and public, indoor and

outdoor. The concept of “emptiness” is also reflected in Zhuangzi’s (B.C.369-B.C.286) philosophy. In fact, the development of Taoism and Buddhism philosophy in China interacts and merges. This is reflected in the ambiguous philosophical foundation that the two are similar. The reasonable use of ambiguous space has a pleasant effect. In the “absolute space,” people cannot feel the communication between the heart and space. However, in ambiguous space, people can feel space transformation and can communicate with space inwardly. To complete this communication, generally through the following several ways: the first is to use the ambiguous space to change the singleness of the original space, creating a richer sense of hierarchy; the second is to use the ambiguous space to adjust the proportion of the original space. By studying the theory of ambiguous space, we can see that in traditional oriental architecture, ambiguous space has obvious characteristics of oriental culture and can reflect the architectural concept and philosophy of the time. Especially in traditional Chinese architecture, the use of ambiguous space has already reached a considerable height, where the use of it and the spatial processing techniques of traditional Chinese architecture are flexible and changeable.

4.1 The transition of space (open space-private space)

When the ambiguous space plays a transitional role in traditional Chinese architecture, the ambiguous space is often connected with the main space of the building, and space is the transition from outdoor space to indoor space. This is a common form of ambiguous space, space is not affected by region and climate, and the use of space is not affected by the type of building. There are actual cases of this kind of spatial treatment in traditional Chinese religious buildings and residential buildings.

The *Jinci Shengmudian* of the Northern Song Dynasty is located in Taiyuan City’s southern suburbs, Shanxi Province, China. *Shengmudian* is its main building. It was built during the *Tiansheng* Period of the Northern Song Dynasty (1023-1032) and was rebuilt in the first year of *Chongning* (1102). Pillars surround *Shengmudian* to form a cloister and a semi-outdoor space. The largest rectangular building at the top of the center of the picture is *Shengmudian* (Figure 2). First, analyze the processing of the structural form and spatial interface in *Shengmudian*. The structure of *Shengmudian* is a wooden frame, and the way of space stress is similar to that of today’s frame structure. The beams and columns of the building play the role of load-bearing force, while the maintenance wall does not support the weight of other parts of the building, so the wall is freed and can be arranged according to the designer’s needs. It can be seen from the plan that *Shengmudian* has four facades in total, but two

facades are open. The spatial interface analysis of the outer corridor is carried out, and the continuous walls, doors and windows, and pillars are expressed as black, and the spatial interface analysis diagram of the three-sided open corridor in the horizontal direction is obtained. Combined with the relationship between the roof and the ground interface realized in the building section, the basic model of the similar space formed by the outer corridor space is derived. The author’s analysis shows that this semi-outdoor corridor space is an ambiguous space. From the perspective of space enclosure analysis, since there are continuous spatial interfaces in the room. It is treated as a closed entity with black, and the corridor is an ambiguous space with gray. The outdoor space is represented by blanks (Figure .3). We can see that the proportion of ambiguous space in the overall architectural space is vast. Such a large proportion of ambiguous space is rarely seen in existing ancient buildings. Although the main space of *Shengmudian* is a room with huge statues of gods, the large area of ambiguous space obviously also plays an important role in the architecture.

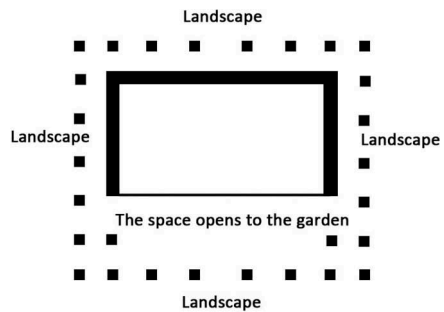


Figure 2. Shengmudian space plan analysis diagram. Source: Graphics: Author’s drawing.

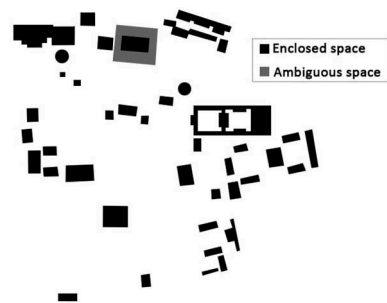


Figure 3. The overall architectural layout of *Jinci* and the performance of the ambiguous space of the main building. Source: Graphics: Author’s drawing.

Secondly, from the analysis of the functions carried by the space, it can be seen from the schematic diagram of the space closure that the ambiguous space in front of the building integrates the indoor column space and the outdoor garden space. Due to the large scale of this ambiguous space, it can carry a variety of behaviors, and these behaviors are defined by outdoor and indoor activities. As an extension of the garden, the space can be regarded as a pavilion in the garden, which can assume the corresponding functions of garden architecture; as a supplement to the indoor space, especially when there are many users, it can be used as a buffer space and a place of worship. The existence of the ambiguous space not only makes the transition between indoor and outdoor more naturally integrated with the environment, but space itself is full of vitality and human touch.

From the perspective of the relationship between space vitality and adjacent space, as a transition between garden space and architectural interior space, the vitality of the ambiguous space in *Shengmudian* will also be affected by the activities carried in these two spaces. First of all, it has good accessibility from its ambiguous space to garden space and architectural interior space; secondly, the ambiguous space is located on the only way from the garden to *Shengmudian*, thus ensuring the flow of people in the ambiguous space. This not only ensures the benign interaction between the spaces but also the ambiguous space can complement the indoor and outdoor spaces in terms of function and finally makes the ambiguous space possess considerable spatial vitality.

Finally, from the perspective of architectural space and environment, the author draws the overall architectural layout of *Shengmudian* and the entire *Jinci* based on historical materials (Figure 3). The gardens in *Jinci* occupy a dominant position in the building masses, but the main body of the building retreats as an ornament in the gardens. Traditional Chinese religious buildings tend to combine their own spirit with natural or artificial nature. Ancient Westerners are more accustomed to integrating them into towns. There is no difference between the two, which only shows that the difference in social concepts led to the difference in architectural treatment. Combining *Shengmudian's* spatial enclosed schematic diagram with the general layout of *Jinci* buildings - assuming that other buildings in *Jinci* are regarded as closed spaces - the picture can clearly show that, in the entire religious building complex, the indoor space has become a point of protecting the "gods," and that the garden is the protagonist of the entire space. Religious behavior spreads into the garden with the ambiguous space as an effective transition and becomes closely integrated. In a sense, ambiguous space is a connector between indoor function and outdoor space.

4.2 Edge effects

Most of the space favored by humans is the border area. We have observed such a phenomenon: In the square, many people are always gathered in the area around the edge; when dining in a restaurant, the position of the surrounding edge is always the fastest to be preempted. These boundary areas prevent people from being exposed to public spaces and becoming the focus of attention. It also enables people to notice what is happening in the surrounding environment at will (Bechtel, 2010). It promotes the exchange of information by looking at people, hoping to gain recognition from others or society through what people see, and enhance their sense of identity. In the ambiguous space of residential buildings, to satisfy the behavioral characteristics of people seeing and being seen by people, it is necessary to rationally arrange seating facilities to provide a good view and orientation for people's behavior of seeing people.

4.3 Free switching of space performance

In this article, the ambiguous space is defined as the main functional space in the building. The space interface of this ambiguous space can be changed according to the needs of users: when the space interface is opened, the openness of the space is greatly strengthened and becomes a semi-outdoor and semi-indoor ambiguous space; when the space interface is closed, the openness of the space is reduced, and it is transformed into ordinary closed space. According to field research and analysis of architectural history materials, such ambiguous spaces first existed in traditional Chinese temples and garden buildings. These buildings usually have a wonderful environment around them, thereby realizing a "green experience" space.

Take the *36 Mandarin Duck Pavilion* in Suzhou *Humble Administrator's Garden* in Jiangnan Gardens in China as an example for analysis. This hall is named after 36 pairs of mandarin ducks were raised in the pool of the North Hall. The use of ambiguous space in Chinese garden architecture allows the interior to introduce the beautiful environment of the outside world. This is because an excellent outdoor environment can improve the quality of use of the indoor space. Using the small garden environment to improve the quality of space, the *Mandarin Duck Pavilion* is a good example.

Humble Administrator's Garden was built at the beginning of the 15th century and now covers 78 acres. It is the largest existing Suzhou classical garden. The *36 Mandarin Duck Pavilion* is one of the courtyards in the *Humble Administrator's Garden*. It takes the form of the mandarin duck hall in ancient Chinese architecture, so it is named the *Mandarin Duck Pavilion*. First of all, in the processing of the space interface, one enters the *Mandarin Duck Pavilion* from the side corridor of the pavilion

through a narrow door. Then the internal space is divided into two by a solid wall from east to west, and the upper and lower spaces face north and south, respectively. In the use of space, in summer, the north-facing part is used to escape the heat and living by the water; in winter, the space is turned to the south-facing space, and the south-facing solar radiation is fully utilized for heating.

From the field survey, it was learned that nine sets of all-height doors are set on the building's north-facing space interface to limit the space, and people cannot enter and exit from this building deep into the water. It can be seen from this point that the functions of these doors are the same as windows. For a better understanding, one can take a look at the model drawn by the author (Figure 4). When the north-facing doors and windows are all opened, the openness of the north-facing space is equivalent to the ambiguous space. The north-south space of the *Mandarin Duck Pavilion* uses only one space. In summer, the north-facing space is used, and the south doors and windows are closed. The geometry of the south-facing space interface makes it a closed indoor space.

Based on the above analysis, the characteristic of the *Mandarin Duck Pavilion* is that its use in winter is opposite to that in summer. Assuming that the sun is shining in winter and the south-facing doors are all open, a schematic diagram of the space closure of the building in winter can be drawn. Through analysis, it is not difficult to find that the ambiguous space of the building moves from north to south according to the different environmental requirements of different seasons, and the internal use of the building and the arrangement of objects are also coordinated with the removal of the ambiguous space. Even in the space and interior design, different genders are used to correspond to different seasons, making the *Mandarin Duck Pavilion* famous. Secondly, in terms of space carrying function analysis, the residential use function carried by the ambiguous space remains unchanged during the different seasons, only in two indoor spaces with different orientations in the same building.

Finally, we analyze the vitality of the space. In the summer, the room with the water facing north is used. The open space to form an ambiguous space can fully avoid direct sunlight and enhance ventilation and heat dissipation, and the environment of the pool can be used to cool down. Thus the ambiguous space introduces a suitable garden microclimate from outside and achieves the comfort of the space with simple means, which attracts people to use it and promotes the vitality of the space. In winter, the open surface of the ambiguous space introduces south-facing sunlight and uses solar radiation to warm up and reduce tides indoors. People also welcome this kind of space. Therefore, the ambiguous space can be used appropriately in different seasons, enhancing the vitality of the space and enhancing user's comfort and pleasure.

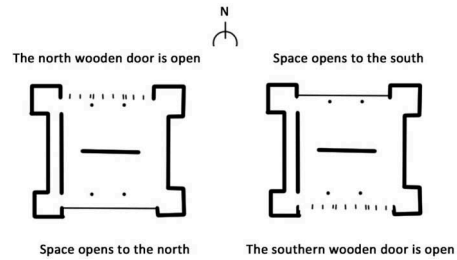


Figure 4. Analysis of the horizontal spatial interface in summer and winter. Source: Graphics: Author's drawing.

5 CONCLUSIONS

Relevant psychologists believe that adjusting the indoor space layout according to the changes of the external seasonal environment can reduce psychological pressure to a large extent, improve the psychological state, and significantly affect people's good physical and mental state. Therefore, reasonable use of ambiguous space can add much color to our lives. All in all, the existence of the ambiguous space also creates a transitional space deep in our hearts, with a bridge between the internal and external spaces. Therefore, architects have taken the use of ambiguous spaces to create special spatial environments as a habit.

The ambiguous space plays the role of connecting the indoor and outdoor spaces in the building. The existence of ambiguous space provides people with the possibility of transition from open space to private space, enriches people's lives, and provides people with a piece of pure land in a high-density building environment. The ambiguous space existing in traditional Chinese buildings still has important guiding significance for constructing modern residential and cultural buildings. The environment of residential buildings meets the most basic functional needs and people's spiritual and psychological needs. By analyzing people's psychological needs and behaviors in ambiguous spaces, understanding people's needs for the space environment is conducive to meeting people's needs by creating ambiguous spaces. Ambiguous space is also an important part of urban space. Under the current background of limited urban land and accelerating the process of high-density construction, ambiguous space provides new possibilities for the existence of buildings.

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The aesthetic construction of multiple humanistic thoughts in historical buildings

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ABSTRACT: No matter which country, the aesthetic thought of architecture is regarded as an important criterion in the evaluation standard of historical architecture. These buildings carry the thoughts and emotions of architects from different eras, condensed into traces of beauty, and exist in contemporary society. This kind of aesthetic significance constantly gives new aesthetic significance through the appearance of the surface and the traces of the years. This kind of aesthetic thought has surpassed the content stipulated by the law of aesthetic form. It rises to the psychological level of aesthetic identification produced by human emotional identification. In the process of building renovation and protection practice, the most core value lies in this. This chapter uses actual cases to demonstrate the theme “aesthetic significance is the aesthetic recognition of humanistic value.”

Keywords: Historical architecture, Humanistic thought, Renewal, Aesthetic significance, Multiple constructions

Over time, the multiple humanistic values formed by historical buildings constitute the aesthetic thought of architecture; historical buildings explain a basic principle: aesthetic activities are human experience activities with the world of imagery as the object, and further elaborated the diachronic nature of architecture. The vitality embodied in architecture connects the past and the future simultaneously and connects the emotions between people in the past and the present; this is also the embodiment of the core humanistic value of architecture.

In the space-time collision between architecture and people of the past and present, the circulation of emotions and the identity of the psychological level also change with the changes of society and times. It contains the aesthetic transmission of architectural space, including historical value. This transmission must be based on the city’s historical context, the emotional identity of people, and the vitality of the building itself. This leads to the multiple humanistic meaning and aesthetic construction of architecture in the relationship between architecture and city, architecture and people, and people and environment.

Furthermore, the multiple humanistic meanings of this historical building contain extremely rich aesthetic thoughts and connotative characteristics.

1 THE AESTHETIC CONCEPT AND CONNOTATION IN HISTORICAL BUILDINGS

The German philosopher Alexander Gottlieb Baumgarten (1714-1762) first proposed the concept of aesthetics in 1750. It is a discipline that studies “the aesthetic relationship between man and the world,” that is, the object of aesthetic research is aesthetic activities. Aesthetic activity is a kind of human life experience activity that takes the image world as the object. It is a kind of spiritual and cultural activity of human beings. The human cultural environment influences it. Therefore, aesthetic activity is also social and historical.

When we say that a particular historical building has aesthetic value, it means that it can trigger people’s emotional activities on a psychological level. The “time value” of architecture is an aesthetic activity that

includes the history of architecture and the sense of spanning time and space that people feel through architecture. This kind of dialogue with time touched through architecture is the main point of the aesthetic significance discussed in this article, not to check it.

It is generally believed that aesthetics is an important way of human existence. Furthermore, it is related to moral judgment. Beauty has the essence of goodness since ancient times, and this has become the highest ideal and highest principle of the ancient European literary concept. Immanuel Kant (1724-1804) believes that aesthetic pleasure should be a kind of “disinterested and free pleasure” (Kant, I. 1987), which has nothing to do with purpose. He explained that aesthetic judgment only links the representation that enables an object to be given to the subject and makes people notice the object’s character and the inner emotional connection that stipulates the power of representation. Judgment is called aesthetics because it is based not only on concepts but also on the inner abilities’ consistent emotions, as long as this consistent performance is felt. The aesthetics of architectural works depend to a large extent on the imagination space it gives people. Imaginary space means that it can accommodate more personality characteristics and carry richer moral memory so that different people can find a fit point that matches their own personality characteristics in the personality projection and arouse resonance. In other words, the moral memory that the public can appreciate and recognize must be related to “sincerity” and “good,” so eternal beauty must be the true and the good, and things that violate the true and the good cannot be beautiful.

The true and the good of historical buildings come from the moral memory it carries. The aesthetics of historical buildings objectively return to the tradition of classical aesthetics, and on this basis, they absorb and accommodate multiple aesthetics. The space left by history remains deep in people’s hearts. It is an emotional imprint, an emotional identity, and a preconceived aesthetic feeling. When this kind of aesthetics is reflected in the historical space and reflects the aesthetic value through the years, it forms a higher level of aesthetic significance. The construction process of architecture is actually a process of spiritual and energy transmission, transformed by the wisdom and labor of construction artisans. As time changes, the artisans who originally endowed the building with the soul are no longer there, but future generations can still perceive the beauty and spirit carried and witnessed by the building itself. This aesthetic feeling is detached from the architecture itself and across time and space. As the Austrian art historian Alois Riegl (1858-1905) believed, “Kunstwollen” means “eternal meaning” (Elsner, J. 2006), which is the driving force and driving force behind the development and evolution of art and aesthetics.

As a practical art, architecture can give the relevant subject a profound artistic aesthetic feeling through the resonance of the architectural space and the background of the relevant subject. In architectural aesthetics, personal moral memory plays an important role. The moral memory carried by architecture originally came from a specific individual. However, through the accumulation of time, it will eventually become a collective moral memory. Thus, architecture has the characteristics of inheritance and can inherit moral memory. Human architectural aesthetic activities highly depend on their own architectural moral memory. However, from the perspective of moral memory theory, modern architecture has severely weakened the building’s function to carry human moral memory and even played a seriously destructive effect on the carrying function of the building’s moral memory.

Our architectural aesthetic activity can be modern or present, and its basis might be the past. The architectural aesthetic activities completed by the ancestors in the past will not be lost entirely over time, and some of them will definitely remain as architectural moral memories. When they are retained as moral memories, they are an important motivation for us to carry out architectural aesthetics in the present or now and an important criterion for us to complete architectural aesthetics in the present. One of the important reasons we can carry out architectural aesthetics like our ancestors is that our ancestors carried out architectural aesthetic activities in this way. Therefore, the moral memory left by the ancestors in the past architectural aesthetic process is an essential reason for us to have architectural aesthetic confidence in the present.

2 THE DIACHRONIC AND HUMANISTIC AESTHETIC VALUE OF HISTORICAL BUILDINGS

Zong Baihua (1897-1986), the first pioneer of Chinese architectural aesthetics, believes that the essence of Chinese traditional architectural beauty is practical and a manifestation of life, a kind of living architecture. In his understanding of the beauty of traditional Chinese architecture based on the theory of life aesthetics, he also mentioned that architecture is an artistic conception. Moreover, the construction of architectural, artistic conception is precisely the rhythm and expression of human life. Therefore, he believes that architecture is a kind of space-time art, and the space-time of architecture is filled with the breath of human life (Baihua, Z. 1981). In other words, Chinese residential buildings have always been an environment that integrates natural scenery and residential space, although buildings are artificial and inanimate. However, everything, whether wood or stone, has the expression of life and spirit from the aesthetic point of view.

In the United States, historical buildings are recognized by law as landmarks: “Urban landmarks usually refer to some urban buildings or places that have important historical, aesthetic, and cultural significance, and are recognized by authorized organizations because of their special important status” (Stimson, HL 1947). From the history of landmark protection in the United States, it can be seen that after “landmarks” were identified, urban architectural styles of different age levels in American cities have gradually formed. As a valuable historic building, the old Pennsylvania Railway Station was once the condensing point of urban life. At the same time, this century-old railway station has carried the emotional sustenance, joys, and sorrows of many families and even individuals. The gathering and parting between people, between people and buildings, between people and the environment, takes place here. The classical atmosphere makes this space full of indescribable beauty and is deeply imprinted in people’s hearts. This historical aesthetic value became why the people of New York started a conservation movement when the building was demolished.

The noumenon of historical relic space architecture appears today as a carrier of human emotional imprints, and it has two meanings. First, people produce the memory of the past in the current environment rather than the real past. Second, because the past has not been preserved intact but has been reconstructed. On the other hand, when the building satisfies the aesthetic and emotional connection relationship that can be more compatible with the people of the present, it will finally reappear in front of the world with a “new” appearance. The “new” here does not refer to the new modeling and new materials of modern construction technology but the “renewal” of historical buildings under the guidance of the restoration design principles.

3 THE CONTEXTUALITY OF THE AESTHETIC VALUE OF HISTORICAL BUILDINGS

In the 1860s, “contextualism” was put forward in the concept of postmodernism, and it was introduced into architecture from the application of linguistics. The urban context is the cultural time and space background of the dynamic development of architecture. The dynamic development of the urban context makes the urban appearance full of vitality and grows organically. On the other hand, the context expresses the relationship between people, people and buildings, buildings and cities, people and cities, and the relationship between history and culture and the entire city. It emphasizes the closeness and respect of the new building to the environment, pays attention to the original structure and context of the

city, has a deeper and broader connotation, and emphasizes the integrity and time-space of the city’s history. The renewal of historical buildings is different from the construction and design of conventional buildings. The focus is not on the free expression of the designer’s style and design preferences but the protection and rejuvenation based on the expression of the urban regional context and the aesthetic and emotional value of the building. This renewal is the material manifestation of people’s collective aesthetic thoughts. For example, the expansion project of the Louvre in Paris (Figure 1) was designed by the famous architect I.M. Pei (1917-2019). He chose not to destroy the original structure of the building or add extra structure to the original palace. Instead, he used a metaphorical method to embellish the entrance of the Louvre in the center of the palace courtyard in the form of a glass pyramid. He used the same geometric solid, although transposing it to another context by applying new building technologies to give it a contemporary High-tech expression. However, it is impossible to look at the intervention without being immediately reminded of the Egyptian pyramid (Kong, 2013). In doing so, he connected other lighting and used small pyramids to form a group of modern environmentally designed artworks so that the new part and the solemn Louvre formed a classic and modern echo. Pei’s design did not overly highlight the elements but gave full respect to the original historical buildings with a humble attitude. He concealed the enlarged part underground, and the pure and transparent glass pyramid gave viewers a broad perspective to appreciate the majesty of the Louvre. On the other hand, this reconstruction also shows the aesthetic value creation of space in the protection design of historical buildings, which is the concrete expression of architectural aesthetics based on people’s collective consciousness.



Figure 1. Echoing tradition and modernity, the expansion project of the Louvre in Paris. Credit: The authors.

The aesthetic transmission of architectural space, including historical value, must be based on the context of urban history. The “human” in it is the most

critical flow factor in the history of the city. When they are organically combined, the aesthetic significance of the building is also upgraded.

In the process of renewing the space of historical relics, those restoration and aesthetic flows are constantly occurring. At the level of aesthetic significance, it represents the inheritance of the urban context and the sense of belonging of architecture itself in the relationship between diachronic and synchronicity.

In appreciating the aesthetic value of historical buildings, the most important thing is image reconstruction. It is also the core of architectural aesthetic appreciation. In the revival and design of historical buildings, we should also pay attention to the reconstruction of image aesthetics and pay attention to the cultural characteristics of the core aesthetics of historical buildings. The successful expansion of the Lille Art Museum in France has realized the symbiosis of historical and modern architecture. The original Lille Art Museum was built in 1892 and is a typical palace-style building. The building houses many excellent paintings and sculptures from the 15th century to the 20th century. However, due to the small area used, many reconstructions have failed to achieve the desired effect.

Finally, the expansion project of the Lille Art Museum was co-hosted by designers Jean-Marc Ibos and Myrto Vitart and was completed in 1997. They retained the building's original red brick arch structure and connected the original art gallery's ground floor space with the urban space through additional buildings. In addition, they designed a temporary modern art exhibition hall with glass skylights at the junction of the new and old buildings, which formed a strong contrast with the solemn and gorgeous style of the old buildings. The construction of the new part shows the greatest respect and restoration to the old building, forming a harmonious relationship between the old and the new in the historic building. In the reconstruction process, they also paid attention to the creation of the aesthetic atmosphere of the image, that is, to maintain the artistic sense of the old exhibition space and to see the appearance of the modern new museum. The two complement each other and enrich the aesthetics of the Lille Art Museum.

The aesthetic significance in the renewal of the historical relics space carries more cultural and human values based on history and past times. Only those humanized spaces that stimulate the experienter's spiritual resonance and spiritual communication can arouse people's unique emotional memories. Architecture is a symbol of collective memory, and the establishment of the Jewish Memorial in Berlin (Figures 2, 3) in Berlin is more like an emotional architectural expression of people's trauma and memory after the Nazi genocide. The architectural shape of the newly-built Jewish

Memorial is a cuboid building with repeated successive turns and forced compression. This architectural form expresses the pain of the Jews being oppressed and the emotion of dissatisfaction and resistance. The slit-like windows on the side of the building resemble scars cut by a random knife, making viewers more aware of the profound suffering caused by the war to the Jews. The symmetrical Baroque architecture of the new building and the old building is in sharp visual contrast. It also forms a sad emotional atmosphere, making the experience and the building form an emotional resonance and promotes a better appreciation of the emotional point of communication between people and the past.



Figure 2. The facade of the Jewish Memorial in Berlin, Germany. Credit: The authors.

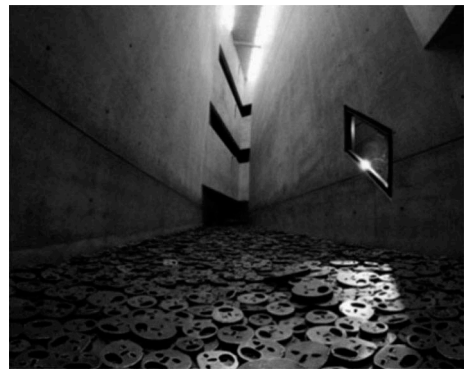


Figure 3. The interior of the architectural space of the Jewish Memorial in Berlin, Germany. Credit: The authors.

Precisely because of the renewal of the historical relics space, it maintains its uniqueness while linking the past and the future. The functional discussion of its rejuvenation and social significance must discuss the form of the building itself, the use function, and discuss it from the perspective of social and historical development and the value of the country and the city. From a global perspective, the form and connotation of landmarks are traced. In this sense, aesthetic significance has become more three-

dimensional and inventive in the restoration process of historical buildings.

4 CONCLUSIONS

The aesthetic construction of architecture, in a sense, what it presents, is not only the construction characteristics of the building at the time of its construction, but it refers to the memories and traces of the years that the buildings living in history leave with the changes of the times. It also represents the social and historical human values that people in the history of change and the cultural environment live in and endow. Whether it is the emotions of the old Pennsylvania train station or the memory of the glass pyramid of the Louvre, all historical buildings that have received widespread emotional recognition like them connect the past and the future. It is not only the concentrated expression of its vitality but also the multiple humanistic meanings of historical buildings.

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Revisiting the City of Edo and the National Museum of Western Art in Tokyo: Unlimited organisms, between reason and emotion

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ABSTRACT: At the beginning of the Edo period (1603-1867), the city of Edo in Japan, which corresponds today to the central area of Tokyo, was the object of a profound urban transformation that was deemed necessary because of the city's new condition as the country's political and military center. Tokugawa Ieyasu (1543-1616), the first Shogun of the Edo period and a mentor for said transformation, devised a system of moats that spiraled outwards from Edo Castle and was to continue growing. Today, Tokyo is the city with the largest urban area in the world. In that city, the National Museum of Western Art, designed by Le Corbusier (1887-1965) in 1955 and completed in 1959, was based on the *Musée à Croissance Illimitée* [Museum of Unlimited Growth], an unrealized proposal the architect had presented in 1939. That museum was organized around a square-shaped nucleus, around which exhibition galleries built on pilotis could be added successively and without limit. This idea of the possible growth of the Tokyo museum was abandoned early on, but the *Musée* proposal continues to be pertinent.

Recognizing the fact that they share structural principles based on possible unlimited growth, this paper proposes revisiting Edo and the National Museum of Western Art in Tokyo, setting out a discussion of the respective creations as organisms that balance reason and emotion.

Keywords: City of Edo, International Museum of Western Art, in Tokyo, Architectural organisms, Unlimited growth

1 THE FASCINATION WITH UNLIMITED GROWTH – SOME NOTES ON SEA SHELLS, BY PAUL VALÉRY

Among the many objects that confront man's mind with questions, some more legitimate than others, he is particularly fascinated by those which, by their form or proprieties, lead him to reflect on his own powers or tendencies. He is amazed to find objects which, though it is inconceivable to him that they should have been made, he can compare to those he is able to make. In such objects he seems to recognize his own familiar modes of thought, his own types of conscious action: his incorrigible "causality" and "finality"; his geometry; his ingenuity; his need for order and his bursts of inventiveness. (Valéry, 1998, pp. 13-14)

The poet and philosopher Paul Valéry (1871-1945) thus conveyed his fascination with finding in a sea shell singular aspects that marked the way Man thinks. "Causality" and "finality"; geometry and

ingenuity; need for order and bursts of inventiveness. All this was present in these fascinating organisms that stood out for their capability of unlimited growth.

Paul Valéry's observations provide the reasoning for revisiting the city of Edo as imagined by Tokugawa Ieyasu (1543-1616), the first Shogun of the Edo period (1603-1867), and the National Museum of Western Art in Tokyo, designed by Le Corbusier (1887-1965) from 1955 onwards and completed in 1959. The latter was based on the *Musée à Croissance Illimitée* [Museum of Unlimited Growth], an unrealized proposal the architect had presented in 1939. Today, Edo corresponds to the central core of the city of Tokyo. Albeit in different ways, Edo and the Tokyo museum share similar structural principles based on the possibility of unlimited growth, and both use the geometry of a spiral. They are two organisms in the conception of which one can, interestingly, discover a permanent balance between reason and emotion.

This paper proposes two autonomous, or perhaps autonomically, self-supporting readings that intersect at a particular point – the possibility of a connection between the maturation of the idea of the *Musée* and Japan, to which one can add the possibility that Le

Corbusier was aware of the Edo plan. Only the logic of the time of writing renders it impossible that these readings are synchronous.

2 THE CITY OF EDO

The beginning of the Edo period (1603-1867) – also known as the Tokugawa period – marked Japan's entry into a period of peace and substantial prosperity¹. It left the Warring States period (1467-1582) behind, a long period of civil wars and social conflicts instigated by *daimyo* (feudal lords) and carried out by their *samurai* (warlords) which the warfare methods introduced by the Europeans had made even more devastating. At dispute was the shogunate's control – the country's form of government – rendering the unification of the territory and centralization of the political and military power decisive.

The Japanese unification process was brought about by Tokugawa Ieyasu, who was recognized as the third great unifier of the country. Oda Nobunaga (1534-1582), Japan's first great unifier, and Toyotomi Hideyoshi (1537-1598), the second of the three, could not consolidate their power and make their contributions last. Tokugawa Ieyasu, or Matsudaira Takechiyo, to give him his original name, was born into a family of *daimyo*, having inherited from his father, Matsudaira Hirotada (1526-1549), the position of the *daimyo* of Mikawa². He served Oda Nobunaga and fought alongside Toyotomi Hideyoshi, in whose government he was to take on an important role. In 1590 Toyotomi Hideyoshi sent Tokugawa Ieyasu to Edo instead of Mikawa, where the Matsudaira family had its own military support base. The aim was to destroy his vassal's political ambitions. Edo was in the heart of the Kanto plain, on Japan's South-eastern coast. But Tokugawa Ieyasu saw there an opportunity to realize his project to centralize political and military power. Thus, he became the most powerful *daimyo* in the country. In 1603, after having defeated forces loyal to the Toyotomi family, he was appointed Shogun by Emperor Go-Yōzei (1571/r. 1586-1617). Thus, the Tokugawa shogunate commenced. Tokugawa Ieyasu was to abdicate in favor of his son Tokugawa Hidetada (1581-1632) in 1605 but continued to exercise power until he died. The Tokugawa shogunate was to last for two and a half centuries. It was the last shogunate in Japan, as the Meiji Restoration abolished that government system in 1868. Edo was

given the new name of Tokyo³. Today it corresponds to the central areas of the Japanese capital.

2.1 The military and political rise of Edo

Tokugawa Ieyasu's aspired project for political and military power centralization was based, from the outset, on the affirmation of Edo and its castle. Edo Castle, the residence of the *daimyo* and his family and later the Shogun's residence and seat of his government, was to emerge as the epicenter of that project, in a dimension that was to reveal itself at once to be both symbolic and physically real, and which was to manifest itself at the political, military, social, architectural, urban and territorial levels, given that the city became the de facto capital of Japan, although the emperor and court remained in Kyoto. In this dual role, symbolic and physical, Edo became indissociable from said Japanese system of government. As William Coaldrake (1981, p. 240) puts it:

[t]he city [of Edo] was created as a monument to Tokugawa power and a key instrument for the imposition and maintenance of bakufu control over the *daimyo*. It was therefore a city which functioned as both the symbol and substance of government, that is, as a metaphor and mechanism of state power.

Edo was located in a delta created by the confluence of several rivers and where also important roads in Japan intersected. Its centrality with the Kanto plain, which was the largest alluvial plain in the country, and also in terms of the Japanese territory, and its direct connection to the sea via the Edo Bay (Edo [江戸] means literally “the bay entrance”), meant that Edo was in a privileged location, both from the military and the trading points of view. In the 15th century, Edo had been an important *jōkamachi* (castle town)⁴. However, by the late 16th century, it had become a disjointed collection of fishing and farming villages, and its castle had been abandoned.

Edo's conversion and expansion works began as early as 1590 when Tokugawa Ieyasu was sent to Kanto. The reconstruction work on the castle and the

1. For a better understanding of precursor events and the early Edo period, as well as other periods referred to herein, please see Walker (2015).

2. The former region of Mikawa is currently part of Aichi Province on Japan's southeastern coast. Aichi Province is to the East of Tokyo.

3. When Emperor Meiji (1852/r. 1867-1912) came into power, he abolished the shogunate, left Kyoto, where Japan's emperors had been based for centuries, and moved to Tokyo, taking the court with him. This was a deliberate move of manifest political significance and confirmed the importance Edo had in Japanese society. For several decades, Kyoto and Tokyo were to dispute the status of capital, with the status finally being conferred upon Tokyo (Iwatake, 2016, p. 237). For a better understanding of Edo during the Tokugawa shogunate, please see Sorensen (2002, pp. 11-44).

4. For insight into the city of Edo before Tokugawa Ieyasu came to power, please see Coaldrake (1981, p. 240) and Ichikawa (1994, p. 182).

city's defensive system remained a pertinent priority (Ichikawa, 1994, p. 184). Japan's recent past and Tokugawa Ieyasu's own experiences brought home just how fragile holding military power could be. The intervention on the castle was carried out at the same time as that on the city. A new moat was built that was more distant from the castle itself. The existing ditch was filled in to increase the available surface area. Gaining buildable ground was necessary for ensuring the fixation of the population and the structures and development of a city that was already being imagined as Japan's future capital. Edo gradually attracted growing numbers of people, both military and civil. Its fragmentation, the result of it being located in a delta area, presented problems for ordered growth and the precise definition of the areas for each social class characteristic of Japanese castle towns. Edo "lacked the symbolism normal to castle-towns of the period," writes Coaldrake (1981, p. 241) about the city in this initial growth phase.

The struggle for power that followed the death of Toyotomi Hideyoshi meant that Tokugawa Ieyasu left Edo, resulting in the interruption of the work on the castle and city.

2.2 The conception of the city

His appointment as Shogun gave Tokugawa Ieyasu the opportunity to return to the redefinition of Edo, now in a more justifiably structured and ambitious way. It now became about affirming Edo as the new center of political and military power in Japan and no longer just the seat of a *daimyo*. A major fire in Edo in 1602 gave new and greater urgency to redeveloping the city.

Tokugawa Ieyasu drew up a great and ambitious plan for Edo to manifest itself, as already pointed out, at the political, military, social, architectural, urban, and even territorial levels. In addition to reconstructing the castle, which would have a keep, new walls, and moats prepared for warfare, the city's fabric was also to be ordered. The plans also included the opening of a navigable canal connecting the castle to Edo Bay. Tokugawa Ieyasu relied on the collaboration of Tōdō Takatora (1556-1630), a *daimyo* who was an expert in military construction. After Tokugawa Ieyasu's death, Edo's development was continued by his son, Tokugawa Hidetada, the second *Shogun*, and then his son Tokugawa Iemitsu (1604-1651), the third *Shogun*.

The plan was based on castle towns. Castle towns were urban structures designed primarily with defensive purposes in mind; they were dominated by the *daimyo's* castle, which, as a rule, was well fortified and surrounded by a moat. The spatial organization in castle towns reflected Japanese social hierarchy, "creating a representation of the prevailing order in the physical form of the city." (Coaldrake, 1981, p. 241) The castle, the *daimyo's* headquarters and a focal point in a castle town, was surrounded by the *samurai* areas, which were surrounded by those areas densely

occupied by the ordinary citizens, including the artisans, merchants, and the poor. The outer limits of a town were where the temples were located. Contrary to European towns, where the fortifications included the respective residential areas, in Japanese castle towns defensive structures surrounded only the castle itself. "The outer commoner, temple and *samurai* areas were conceived as a part of castle defences, not as something to defend," writes André Sorensen (2002, p. 23)⁵. In Edo, the relationship between the urban organization and the social hierarchy was more unclear, if not to say inverted, in relation to the castle town model. Concerns with the defense of the Kanto plain, which exceeded concerns with defending the castle, led Tokugawa Ieyasu to place several of his more important vassals on the outer limits of the town. In addition to his, the villagers, some of whose families had been in Edo for generations, and more recent newcomers to the city grouped in available areas, some closer to the castle (Coaldrake, 1981, p. 241).

Heian-kyō, the imperial capital of Japan and seat of the shogunate – the city was to adopt the name of Kyoto in the 20th century – was a justified reference for Tokugawa Ieyasu even before he became *Shogun*. Heian-kyō had been planned following cosmological orientation principles developed in China over several centuries and then imported into Japan after the first Japanese missions to that country in the 7th century⁶. Of course, the adoption of those principles was conditioned by Edo's morphology, which required doing without the regularity that characterized Heian-kyō. Still, the reference to the imperial capital gave the city imagined by Tokugawa Ieyasu the symbolic dimension needed to elevate it beyond the mere seat of a *daimyo*.

5. For a more in-depth understanding of the castle towns of the Tokugawa period, please see Satoh (1997) and Sorensen (2002, pp. 22-25).

6. Coaldrake (1981, p. 241) looks at the adoption of these principles in Edo, basing himself on sources from the early Edo period. Following said principles, which are frequently identified as *feng shui*, or geomancy, today, the orientation of a city in line with the four divinities associated with the four geographic cardinal points was decisive for guaranteeing its protection against evil cosmological forces, particularly those coming from the Northeast. These principles were rarely applied in full, even in China, as a result of pre-existing conditions. "The directions, therefore, were regarded as geomantic and not geographical cardinal points" (Coaldrake, 1981, p. 243). In Japan, the application of the principles was minimal and limited to very isolated cases. As Sorensen (2002, p. 13) points out: "[The cities of Heijō-kyō (later Nara) and Heian-kyō (Kyoto)] were the only two in Japanese history that followed the symmetrical planned grid of the Chinese imperial style and did not have a lasting impact on patterns of Japanese urbanisation, which later reverted to a more indigenous style of asymmetrical and irregular growth." The standard form of urban design in pre-modern Japan was the castle town model, as pointed out above (Sorensen, 2002, p. 13).

The morphological similarity between Edo and Heian-kyo has direct significance in terms of Tokugawa political ambitions. At Edo, [Tokugawa] Ieyasu was laying the geomantic groundwork for a future capital city while he was still the vassal of [Toyotomi] Hideyoshi. Edo, the castletown of a regional daimyo, was conceived as a potential national center in the grand style of ancient Asian imperial cities. (Coaldrake, 1981, p. 243)

2.3 A singular plan

Basing himself on the castle town model and taking the city of Heian-kyō as a reference, Tokugawa Ieyasu invested in expanding Edo's buildable area and constructing a system of defensive moats for the castle and navigable canals, the most important of which was the Dosan-bori, a canal that was opened between the castle and Edo Bay. As a result of this huge investment, there was strong growth in trading activity, thus attracting ever more people, many of whom settled on the canal banks, leading to conflict with the societal hierarchization model used in castle towns.

Along with this increase in commercial activity, the warring impulses of the *daimyo* were brought under control. They were now obliged to ensure that the moats and canals were opened and to supply stone for the castle's construction. This was a considerable financial effort, particularly for those whose lands were further away. They had to bear the costs of transport of materials over long distances (Coaldrake, 1981, p. 250). The clans' crests whose seats were far from Edo and inscribed in the castle walls confirmed the effort required. The control over the *Daimyo* was also to see the imposition of an alternate residence (*sankin kōtai*) system under Tokugawa Iemitsu (Sorensen, 2002, p. 17). That system meant that the *daimyo* had to live in Edo for one of every two or three years – the regularity depended on the status of each *daimyo* – and to have to leave their respective families in Edo as political hostages. The system was also to include the *samurai* that lived on the Tokugawa family lands. The system enforcement contributed to the additional growth of Edo, which was already quite considerable, given that each *daimyo* or each *samurai* staying in the city also meant hundreds, if not thousands, of their subordinates also had to stay.

The singularity of the plan for Edo derived from the complex system of defensive moats and canals. Instead of emanating concentrically from the castle, the moats and canals spiraled outwards, successively surrounding the castle and the city; it was a movement that was as defensive as it was a sign of an opening up and an affirmation to Japan. It was defensive because it improved the defense of the

castle, while at the same time enabling the entrapment of assailants entering through the canals; and it represented an opening up and affirmation to Japan because the implementation of the system was instrumental for the military control of the country and formed the basis of the growth of the city, which was to be continued under Tokugawa Ieyasu's successors. In this spiral system, one can detect an aspiration to unlimited growth – unlimited in space and permanent in time, just like the growth of a spiral.

Tokugawa Ieyasu's ingenuity was shown in his definition of Edo's founding principles, in which the assertion of the shogunate went hand in hand with the city's transformation. Those principles emerged as a precise, rational construction driven by the ambition of centralizing political and military power and which always bore a symbolic dimension⁷. But it is of interest to note just how much those principles also reflected a construction that was of the order of sensibility and, thus, in a way, of emotion, as they revealed a constant balance between evoking an ideal plan, one inspired by Heian-kyō, and integrating the irregularities – both social and morphological – that were already firmly inscribed in Edo. Thus, Edo revealed itself as an organism, an imperfect organism⁸, as all organisms are, but one with a full manifestation of life – a living, expectant body. Perhaps that is the most outstanding aspect and the greatest achievement of the project imagined by Tokugawa Ieyasu.

By the early 18th century, Edo was already the most populous city in the world, having overtaken London and Paris (Coaldrake, 1981, p. 246). The *Kidai Shorān* (Excellent View of this Prosperous Age), a scroll painting by an unknown Japanese artist that was completed in 1805 (Hiromu and Tadashi, 2020), was a faithful portrait of this urban organism. Along 12.3m, the scroll shows, with great precision, the main street of Nihonbashi, the neighbourhood that was the first central area of Edo and was next to Dosan-bori canal. The street is depicted full of people, in a continuous movement that also demands action in the viewer's gaze. The city is a live being – it pulsates.

In today's Tokyo, the large moats dug around the castle, which gave way to the Imperial Palace complex, are still visible. Many of the canals opened by Tokugawa Ieyasu have since been filled in, but it is noteworthy that some of the expressways that cross the

7. Screech (2008) looks precisely at the dimensions of the codification inscribed in Edo.

8. Even in Heian-kyō, symmetry was avoided. That choice was rooted in an analogy to the human body, also an organism. "Th[e] perfect capital could be compared to a human body. [...] But a human body is not entirely symmetrical, as its most vital organ, the heart, is on the left. The city was ordered similarly." (Screech, 2008)

city center follow the layout of some of those canals, some of which can still be seen below the roads.

Tokyo is today the largest conurbation in the world.

3 THE NATIONAL MUSEUM OF WESTERN ART IN TOKYO

In 1955 Le Corbusier was commissioned to design the museum destined to house the art collection of Kojiro Matsukata (1865-1950) in Tokyo. Kojiro Matsukata, a Japanese shipbuilding businessman, who was educated at Yale University in the USA, and who visited Europe on his way back from there to Japan, had gathered together a vast collection of European works of art he had acquired on his journeys to Europe from 1916 onwards. He was driven by “an unselfish desire to build an art museum on his own and to put authentic European artworks on view for the benefit of young Japanese artists.” (The National Museum of Western Art, 2020). Matsukata brought part of the collection back to Japan but had to sell it. Of the rest of the collection, one part remained in London and was lost in a fire in 1939; the other part stayed in Paris and was confiscated by the French State at the beginning of the Second World War. Thanks to the re-establishment of friendly relations between the two countries in the 1950s, France accepted returning the collection to Japan, on the condition that a French art museum was built in Tokyo to house it⁹. In 1954, Kunio Maekawa (1905-1986), a former collaborator to Le Corbusier’s, contacted him and invited him to submit a design. Le Corbusier accepted. The modern museum was one of the problems he was most interested in, he pointed out in his response to Maekawa (Sendai, 2016, p. 185). However, he did insist that Japanese architects carried out the final design and the work supervision. The Japanese support team was made up of Kunio Maekawa, Junzo Sakakura (1901-1969), and Takamasa Yoshizaka (1917-1980), the latter two also having been collaborators of Le Corbusier’s.

The award of a design contract to Le Corbusier for a *musée d’art français* in Tokyo was made official in 1955. Construction work began in 1957. The National Museum of Western Art opened in Tokyo in June 1959¹⁰.

9. To deeper understand Kojiro Matsukata and his collection, please see The National Museum of Western Art (2020).

10. As early as January 1960, the museum featured a touring exhibition on Le Corbusier (Francis and Sloane, 1987, p. 353). In 1979 the museum’s New Wing, designed by Kunio Maekawa, was opened; and in 1997, the Special Exhibition Wing, also designed by Kunio Maekawa, was inaugurated.

3.1 From the Musée à Croissance Illimitée...

The design of the National Museum of Western Art was based on the Musée à Croissance Illimitée [Museum of Unlimited Growth], an unrealized proposal that Le Corbusier had begun to work on in 1930 and finalized in 1939. He published it for the first time in 1946, in Volume 4 of his *Œuvre complète*, where it was located in Philippeville, now Skikda, in Algeria (Le Corbusier, 2013)¹¹. Given its radicality, in particular concerning the meaning of a museum in modernity, “the Museum of Unlimited Growth [is] a counter-narrative to the typical museum as monument,” as Irene Chin interprets the design (Chin, 2015, p. 1). Instead, the *Musée* can be seen as encapsulating values representing how Le Corbusier understood architecture: firm, meta-circumstantial, and atemporal structural principles rooted in his close and deep relationship with the world and at all times guided by the search for inner truth. “Architecture, Pure Creation of the Mind” – as Le Corbusier himself had proclaimed in *Vers une Architecture [Toward a New Architecture]*, published in 1923 (Le Corbusier, 2007, p. 231).

The *Musée*, finalized in 1939, was organized from a central square nucleus, around which, successively and without any limits, exhibition galleries built on pilotis were to be added. The entrance was via a passageway underneath the building, from where one could go up through the central nucleus and then access the galleries. This upward direction in the central core contrasted with the horizontal and unlimited expansion of the building. On the exterior, the beams that protruded from the walls and the paving design anticipated future growth. The galleries’ spiraling organization supported the free organization of the interior, inviting the visitor to explore the museum space on foot. The partitions could be changed and were placed to leave spatial intervals. The works of art were to be illuminated by a series of clerestories that accompanied the galleries, favoring natural light. Intending to lessen the perhaps labyrinthine feel of the interior, the *Musée* had defined four galleries that linked the central nucleus to the exterior in the form of a fylfot. The ample spans at the end of each of these galleries were to be the only openings in the museum’s facade. In reality, the *Musée* was to lack a permanent facade. In a summary that is as clear as it is suggestive, Beatriz Colomina (2009, p. 57) writes: “[t]he museum [of Unlimited Growth] is an ever-expanding interior without exterior. It is a machine swallowing the outside.”

By the time he began work on the design of the museum for Tokyo, Le Corbusier had already revisited his unrealized proposal for two other

11. In the 1930s, Le Corbusier and Pierre Jeanneret (1896-1967) developed the Obus Plan for Algiers, Algeria. The design for the museum for Philippeville was not built.

museums: the Museum of Knowledge in Chandigarh, India, now the Government Museum and Art Gallery; and the Ahmedabad Museum, likewise in India, the present-day Sanskar Kendra Museum. The latter was still under construction at the time¹². These three museums were the only realizations of the *Musée* proposal, even if its most interesting detail was not fulfilled, given that none of these museums allowed for the possibility of growth, no matter how limited it was to be¹³. The Matsukata Collection was already a fully formed collection, but that did not dissuade Le Corbusier from returning to his design for the *Musée*.

The choice of the *Musée* as the basic principle for the Tokyo museum's design may not have to do with the fact that Edo, the original nucleus of Tokyo, as explained above, was developed based on a plan that had a spiral as its structuring principle. Nevertheless, one must acknowledge the possibility of the existence of a link between the maturation of the *Musée* idea and Japan, even if the origins of the spiral can also be found in the Mundaneum, a design by Le Corbusier and Pierre Jeanneret (1896-1967) for the Cité Mondiale in Geneva, Switzerland (Le Corbusier and Jeanneret, 2013)¹⁴. Colomina writes (2009, p. 58):

[t]he museum was constructed by the Japanese architects Maekawa and Sakakura, who had worked for Le Corbusier in Paris between 1928 and 1931 (that is, during the crucial years when the idea of the Museum of Unlimited Growth was formulated) and returned to his office after the war.

In addition to Maekawa and Sakakura, and Yoshizaka, several other Japanese architects, both male, and female, worked for Le Corbusier from the 1930s onwards. Charlotte Perriand (1903-1999), an associate and close friend of Le Corbusier and Pierre Jeanneret's, spent long periods in Japan from the early Second World War onwards¹⁵. Le Corbusier, at the

time still using the name Charles-Édouard Jeanneret, came into contact with Japan-related works through the library in his hometown of La Chaux-de-Fonds (Chevroulet, 2015). It is, therefore, conceivable that Le Corbusier knew the origins of Edo.

3.2 ... to the International Museum of Western Art in Tokyo

Le Corbusier traveled to Tokyo in early November 1955 to get to know the final site of the museum. The site was adjacent to the National Museum of Nature and Science and close to other cultural institutions in Ueno Park¹⁶. As was his wont, he drew several ideas in his sketchbooks, adding informative notes on the site's conditions, particularly on the climatic conditions and prevailing winds (Sendai, 2016, p. 187). The first drawings for the design show Le Corbusier's intention of testing an ambitious proposal that was in line with the cultural dimension of the institution that had invited him and how he had understood the museum's reach. Chin (2015, p. 4) writes:

[...] despite the clarity in form of the Museum of Unlimited Growth, the project was always conceived as being part of a larger complex. [...] The square spiral museum would house permanent collections and there were to be pavilions for temporary exhibitions to supplement the greater narrative.

In addition to the museum building, the proposal also included a *Boîte à miracle* [Miracle Box], a small, cube-shaped theatre devoted to theatrical experimentation, and a pavilion (Sendai, 2016, p. 187)¹⁷. The inclusion of a restaurant and a lecture hall were also considered (Sendai, 2016, p. 189), but all additional structures were abandoned, as they added to the proposed budget and the limited surface area available for the museum construction. Above all, the latter reason

15. For insight into Charlotte Perriand's relationship with Japan, please see Cimorelli (2013).

16. Here, one should note the curious fact that Tōshō-gū, the Shinto shrine dedicated to Tokugawa Ieyasu, is also located in Ueno Park, just metres away from the National Museum of Western Art.

17. The inclusion of a *Boîte à miracle* in the early design stage for the Tokyo museum had been tried before, in 1952, in the design for the museum in Ahmedabad, although here too, it was not realized (Sendai, 2015, p. 524). The pavilion is similar to the art gallery on the Chandigarh museum grounds. The initial designs for the museums in Tokyo, Ahmedabad, and Chandigarh confirm that Le Corbusier saw the museum as one element in a broader complex of structures, where various forms of artistic expression could co-exist. Those structures would constitute a volumic composition that made it possible to walk between them, a kind of *promenade architecturale*. Said plans were only realized in the Chandigarh museum, and even there only partially, as observed in Footnote 12.

12. The design project for the Chandigarh museum was begun in 1952, with Shivdatt Sharma (b. 1931) having collaborated in the project. The construction work was completed in 1968 (Gans, 2006, p. 244). The museum includes the cultural center complex Le Corbusier had envisaged for the city, which was only partially completed. The design project for the Ahmedabad museum was also begun in 1952, with the collaboration of Jean-Louis Vêret (1927-2011). The work was completed in 1958 (Gans, 2006, p. 212).

13. On the other museums designed by Le Corbusier that incorporated the *Musée* principles, please see Duyan (2019, pp. 129-131).

14. The Mundaneum was the first museum designed by Le Corbusier and Pierre Jeanneret. To better understand the significance of the Mundaneum and its influence on the other museums that Le Corbusier designed, please see Dumont D'Ayot (2015).

led to the exclusion of some aspects from the *Musée* proposal. The spiral effect would have exceeded the site boundaries and was abandoned for that reason. Furthermore, the fact that the site was relatively narrow meant that the design of the fyfot's arms had to be altered. In the end, some of the museum's functions had to be placed underneath the building. "As a result, the image of a museum elevated in the air broke down" (Sendai, 2016, p. 188). The indications of possible growth disappeared – the structural elements that protruded from the walls of the *Musée* proposal were removed. The concrete panels that cover the exterior walls confirm the idea of perpetuity. Le Corbusier insisted on the maximum possible use of natural light, believing in its changing properties. The *Musée* clerestories gave way to suspended galleries that brought natural light into the interior while allowing for the installation of artificial lighting systems. The positioning of these galleries reinforced the fyfot concept.

The museum's central nucleus, a pivotal element in the whole spatial structure, was given particular attention by Le Corbusier. The passage underneath the suspended building leads to a vertical space over three floors with lighting from above. The first floor is accessed via a ramp that is folded into three parallel sections, along which diverse perspectives of the space are created. On the uppermost floor, a balcony hangs over the void below. The Grand Hall – or *hall d'honneur*, as Le Corbusier (1956, p. 16) refers to it in his text on the *Musée* – is an exhibition space and does not merely provide access to the museum's galleries. Le Corbusier imagined it as a synthesis of several art forms, whereby architecture is simultaneously one of those art forms and the containers for the others. One of the walls was to be a photo wall. "Suppose a Sistine [Chapel] with the photograph in place of brush!" Le Corbusier wrote in a letter to Yoshizaka (Sendai, 2016, p. 192). That idea was not realized, although Le Corbusier insisted on its importance. Initially, the ceiling of the Grand Hall was to be perforated by small-sized apertures and painted red; the walls were to be painted yellow, green, or blue. The atmosphere was to evoke that created by the Southern wall of the Ronchamp Chapel (Sendai, 2016, p. 188), which was completed shortly beforehand¹⁸. The idea of the apertures was to be abandoned. In their place, a large-size triangular opening was placed on top of one of the pillars in the hall.

The opening is covered by a pyramidal volume that is open to the North. Light flows into the interior, highlighting the two beams that intersect at the top of the pillar. The structure is exposed, but in a way that is unique in Le Corbusier's work. There is an affirmation of essentiality in said exposure, extending to the

architecture¹⁹ – structure, and space. The presence of the structure underlines the spatial void. Perhaps therein one could discern another, a new link to Japan, possibly reinforcing that, already mentioned above, which may have existed throughout the maturation of the principle underlying the *Musée à Croissance Illimitée*. The possibility that that other link already existed is strengthened by the fact that the team of Japanese architects assisting Le Corbusier was involved in determining the height and, thus, the proportions of the pyramidal element (Sendai, 2016, p. 190).

Le Corbusier was very pleased with the dedication of Maekawa, Sakakura, and Yoshizaka in accompanying the design and supervising the construction work and was appreciative of the outcome achieved. Unfortunately, however, he never got to the work personally.

3.3 "Pure creation of the mind"

The possibility for the growth of the Tokyo museum was an idea that was abandoned early, as shown above, but the unrealized proposal for the *Musée à Croissance Illimitée* retains its pertinence.

In 1939 Le Corbusier described the principles behind the *Musée* (Le Corbusier, 2013, p. 16), referencing the various necessary construction elements, i.e., the pillars, beams, walls, and ceilings, and how they are combined, i.e., everything is to be based on the Golden Ratio rules. He underlines the economic aspect of the proposal and the wealth of combinations suitable for the good organization of a museum. Le Corbusier seems to confront the reader of his text with the imminent activation of a specific mechanism, but in the end, it is the schematic representation of an organism that is revealed. The *hall d'honneur*, the core of the proposal, is protected by the structure of pillars and beams, i.e., the skeleton, which in turn is wrapped in a wall, a skin, that is successively absorbed. The growth is the manifest expression of the vitality of that organism, which is in harmony with the vitality of the art collection it is to house. Le Corbusier's enthusiastic text convokes the emotion of the confrontation with art, art of modern times appropriately exhibited in a building that is itself full of the spirit of modernity. Le Corbusier makes one wish that his *Musée* was built. He gives it a location in his text – Philippeville. That is the charm of his words, drawings, and the model photographs he presents. Nevertheless, the *Musée* is a plan; it

18. The Chapel of Notre-Dame du Haut was consecrated in 1955. The design project was begun in 1950 (Gans, 2006, p. 93).

19. Kazuo Shinohara's (1925-2006) work on exploring the value of the structure in the conception of Japanese spaces presents elements that could be related to this particular detail of the Tokyo museum. For more on Shinohara's work, please see Taki, Warren and Ferreras (1983).

is not a building. It is directed at the reason instead of being architecture and presenting itself to aesthetic emotions. The *Musée* is, in the end, run, a beginning point in defining an architecture. Indeed, as Chin (2015, p. 5) points out:

[t]he spiral diagram which organized Le Corbusier's ideal museum, was therefore a framework for intellectual organization in the mind, rather than on the perceptual level of the eye.

So, there is nothing singular in how the National Museum of Western Art in Tokyo complied with the *Musée*. Even though it may begin with a scheme, architecture will also be something more.

4 AFTERTHOUGHT

This chapter takes as its starting point recognition of the fascination aroused by the possibility of the unlimited growth of an architectural object – the notion of the architectural object is here interpreted in the broadest sense, also including the urban dimension. Carrying the possibility of unlimited growth means to consider time in a particular way. Contrary to the common idea of time as a continuum that is independent of architecture, with said idea being reflected in the frequent valorization of the timelessness of architectural objects, time itself is, indeed, built into the very conceptualization of these objects, thus emerging as a founding condition of the definition thereof. Architecture is thought of as animated by something akin to inner movement and at all times latent movement. Architecture becomes an organism. This is the idea behind the definition of Le Corbusier's *Musée à Croissance Illimitée*, even if the Museum of Western Art in Tokyo only partially realized that idea; this is the idea that governed Tokugawa Ieyasu's plan for Edo, which gives the Tokyo of today its identity, despite its current immensity and diversity.

Reflecting on architectural organisms that incorporate the possibility of unlimited growth brings one to the boundaries of the very definition of architecture. It is here that the importance of said organisms for the contemporary world is rooted. The notion of the architectural object as something that perpetuates itself in time gives way to the idea of the architectural object as an organism in constant transformation. That readjustment also requires the said organism's constant and always renewed capacity to offer itself to signification, i.e., the capacity to become meta-circumstantial. Architecture thus emerges as something meta-objectual.

Isn't this condition of being a meta-objectual thing the ultimate challenge for architecture?

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How creations can control minds: The railway stations of the dictatorial regime in Portugal

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ABSTRACT: The 1930s was a particular decade in the history of architecture in Portugal. In this particular era, a dictatorship ruled and shaped ideals, such as the proclamation of the Portuguese traditions as valid symbols of national importance. These ideals were an imposition on every level of people's lives, including in the approved designs of public and private buildings. Consequently, the government built and renovated railway stations - and several other public buildings - to efficiently broadcast these ideals, which intentionally resembled private dwellings.

National ideals were disseminated by enhancing the differences of each region via contemplating its unique traditions. The railway stations reinforced the image of domesticity, and that image was a tool to instigate local identity and encourage national pride. Therefore, can architecture be used as a tool for shaping minds and hence influencing ideals? Can familiar materials, colors, textures, and proportions create a sense of identity? Or does the displacement of fundamental architectural concepts generate misplaced objects without content?

Most of these railway stations in Portugal are left abandoned. To appraise their value, one needs to consider if these uniquely decorated buildings have a meaningful contribution to today's society. Or, in other words, can traditional pastiches still shape our minds, as originally intended?

Keywords: Authoritarian regime, Architecture, Railway stations, Traditionalism, Modernism

In 1926, after a coup d'état of a brief first Republic, a dictatorial Regime called *Estado Novo* (New Regime) took charge in Portugal. By 1933, this government rapidly imposed new rules and ideals for the country, which had to be obeyed and propagated by its inhabitants.

"The President (...) dreamt of a country transformed into a vast white village in a rural setting." (De Carvalho, 2018, p. 172) This picturesque image will define the Portuguese's overall politics, economy, social behaviors, and architectural production. Can a wholesome rural image be adequately refined and echoed enough times to influence people's behaviors successfully? This article does not aim to study sociology or physiology theories, but instead, it seeks to define and depict the architectural concepts and constraints that helped materialize an imposed ideal on the Portuguese railway infrastructure.

People were not free to choose this model. On the contrary, they were obliged to either endure or identify with it in every aspect of their lives. Architects and designers of approved projects were no exception, and they were to design in a specific manner and according to the idealized image of the Regime.

Nonetheless, the reality proved to have a level of complexity inherent to any social system. Hence, there was an intrinsic and rich exchange between the "enforced image" of a traditional and rural ideal and the "polished modernism" advocated by some key architects of the Regime. This "homogenized heterogeneity" (Brites, 2017, p. 101) defined all public buildings designed and built, particularly during the 1930s, including the railway stations built and renovated during this era.

It is until this particular decade that the Portuguese railway network has its last considerable public investment. Nevertheless, it was such a significant railway reform that its impact remains today. However, the unique design of their "constructed" images is a benchmark of our history. A history that imposed truths and, therefore, was able to redefine an entire society.

Therefore, Salazar had overlooked the fact that no single architectural style was established by the Fascist Regime, for contradictory proposals coexisted as long as they help to 'create the monumental Rome of the twentieth century.'

Salazar, as almost all his contemporary Portuguese elites, ignored that a judicious use of volumes, proportions, scale, and ornaments, could translate the myth of Romanità¹ into reality. (De Carvalho, 2018, p. 154)

1 THE DICTATORIAL REGIME AND ITS ARCHITECTURE

Portugal was living through a profound economic recession, mainly because it had little or no industries. Furthermore, the exportation of agricultural goods had suffered competition from other countries and lost most of its market for cheaper rates. Essentially, the Crown had been, for almost two centuries, economically withstanding from trades obtained by exploiting the natural resources of its colonies, such as petrol and diamantes, mainly from Africa and Brazil. When Brazil proclaimed independence and the slave trade ended (free labor), Portugal underwent a deep recession that originated economic bankruptcy. On the 5th of October 1910, the republicans organized a coup d'état that overthrew the monarchy and, consequently, the exile of King D. Manuel II to England. (Robinson, 2003, pp. 1–2) Finally, after a very short-lived Republic, there was a second coup d'état in 1926, and after seven years of governmental instability, the Fascist Regime, also known as Salazar's Regime or Estado Novo (New State), reclaimed an absolute power in 1933.

Gonçalo Canto Moniz describes and synthesizes the 1930s as divided into three periods, showing how the architectural language developed in public commissions. The first period is between 1930 and 1933, the second between 1933 and 1938, and the third between 1938 and 1940.

The first period was defined, as previously mentioned, by the instability of the government after the coup d'état. Due to this instability, the government directly appointed a chosen architect. The New State's official proclamation defined the second period, and therefore, the country was reaching a stable economic momentum. Hence, with this financial stability, public works started to prosper. Public buildings were an effective tool to propagate

the New Regime's ideals quickly. Consequently, a new methodology was needed, and the ministry of public works and communications (MOPC) suffered an overall restructuring and became responsible for overseeing all new public projects.

Finally, the third period was the peak of architectural propaganda, where according to several authors, by the end of the decade, there already was a conscient architectural and artistic vision from the Regime. (Moniz, 2005, pp. 71–72) Nevertheless, this vision cannot be clearly defined, even though the Regime envisaged a heterogeneous picture. However, the reality is always a complex endeavor with unforeseen outcomes, even when one attempts to control everything.

The government was to be omnipresent and regulate every aspect of society. Furthermore, architects would have to “polish” their designs as often as necessary. Salazar or/and his appointed ministers would have to be satisfied that the result would comply with an overall archetype. Those who tried to challenge it had their designs canceled.

Traditionalism, regionalism, and nationalized neo-classicism were concepts that suited them the most. However, the prevalence of these aesthetics is not to be mistaken for an established official style, but rather as the result of a successful campaign in favor of nationalism and against radical currents of internationalism which had been fought since the last decade of the nineteenth Century, leading to a standardization of taste perfectly in harmony with the Salazarist doctrine. (De Carvalho, 2018, p. 167)

The Regime adopted a version of vernacular and popular architecture called *Português Suave*. It used this doctrine to materialize their ideals and propagate them, which perfectly suited Salazar's dream “of a country transformed into a vast white village in a rural setting.” (De Carvalho, 2018, p. 172) However, reality existed between a mix of contradictory ideas: on the one hand, the modern, which was the vanguard architectural movement of the western world, and on the other hand, the traditional regionalism, being advocated by the Regime. Modernism proclaimed freedom of expression and the use of innovative materials, which embraced the new technological world. In contrast, traditionalism enhanced and glorified traditional architectural methods of construction.

The Portuguese style (*Português Suave*) can be defined using nationalist values with modernist materials and technologies. (Reis, 2017, p. 51) In other words, the architectural language chosen by the Regime camouflaged its modernity with an idealized traditional envelope made of architectural elements inherent of the 17th and 18th Centuries, such as rustic stones, pitched roofs, arcades, and window surrounds made of stonework.

1. Exactly like Salazar, many Portuguese architects were unable to grasp this ambivalence. Indeed, those who adopted both a more international language and a national style praised Fascist architecture, the former for being ‘audaciously modern’ and the latter for being ‘traditionalist.’ While one faction could have been attracted by the rationalist style of Giuseppe Pagano and Giuseppe Terragni, others could have become lured by Marcelo Piacentino's severe stripped classical style, which had had many advocates even within democratic nations. (De Carvalho, 2018, p. 154)

One can argue that this idealized and fabricated image of the Regime is somewhat identical to the language applied to the railway stations' designs since the Industrial Revolution. Curious to note that railway stations only existed because of the new technological advances of the Industrial Revolution and the invention of the train. Hence, up to this era, railway stations were designed and built by camouflaging their avant-garde structures with traditional styles, almost denying their intrinsic modernity and industrial soul.

2 A NEW TYPOLOGY OF THE INDUSTRIAL REVOLUTION

The invention of the railway was only conceivable by the arrival and development of the Industrial Revolution. The Industrial Revolution began in England between 1730 and 1850. Though, it quickly dissipated throughout Europe and gradually to the rest of the world. Traditional materials, such as stone, bricks, tiles, and wood, were reinvented and used together with new ones, such as pig iron, glass, and later reinforced concrete. Buildings could now expand beyond scales inconceivable until then because of the progression of science. (Benevolo, 2001, p. 35)

Furthermore, the steel industry used iron and steel as its raw materials and developed new ways of applying them. Thus, technological advances allowed for the invention of rails, transportation machines (trains), and even railway spaces and installations (such as stations), and so, architects and engineers were able to respond to innovative requirements without historical precedents.

This pioneer mode of transport became the trademark of the industrial, cultural and social revolution of the 19th Century. Furthermore, given its commercial success, railway stations began to take a relevant status among the bourgeoisie. As a result, there was a further investment towards this new typology², and a wide variety of architectural styles reflected its growing social importance in several European cities. Railway stations became the new symbol of modernity³, and they were the cathedrals of the modern era. (Alves,

2015, p. 597) For this reason, its importance became ever more crucial within the railway network and the urban fabric. One can argue that they were the image of modernity. Although, quite curiously, these technically state-of-the-art structures were buildings specifically designed to conceal their modernity within traditional materials, such as the London Bridge Station in London, designed by Henry Roberts and Thomas Turner in 1836, and in 1846, the Montparnasse station in Paris, designed by Victor Lenoir. (Alves, 2015, p. 597)

It is peculiar to note that there was a conceived method of designing these railway stations. The building's structure was camouflaged under façades of stone or bricks, using steel to solve technical problems. When the façades used steel, it was applied as a decorative element and dissimulated to look like stone or wood. (Hagatong, 2014, p. 106) Railway stations were, therefore, concealing their industrial character under the conventional styles of the epoch. This concealment was a conscious gesture of manipulating the "new and peculiar" language that modern materials created. By disguising these new materials with traditional styles, one was able to create "familiar and recognizable" images. In a way, the bourgeoisie fabricated a vocabulary through these buildings and proclaimed architectural production's conservative thoughts and ideals.

As a consequence, there was a carefully fabricated image of modernity. According to the created perception, these buildings were not modern or industrial. They were something else. They were the exact image of their promoters. Either consciously or unconsciously, the bourgeoisie used these buildings to showcase their economic power and their relevance in society. To achieve the bourgeoisie's relevance, it meant that they would fabricate a new "monument," wholly disconnected from its roots and consequently adorned by a method of collaging classical elements into it.

This conscious gesture became a norm to the railway stations built around the western world and Portugal. The main difference is that Portugal did not have a significant industrial revolution, per se, which meant that the innovative materials were scarce and expensive to procure. Consequently, the construction of most railway stations in Portugal (until the New Regime) used traditional materials, adorned in traditional styles, with façades stylized according to the region of their locations, the date of construction, and the developer in charge. (Rodrigues, 2007, p. 5) In the initial stages of the railway network development, one could only find steel in the railway lines themselves and the warehouses adjacent to the central station. Using the material in this particular way

2. This classification can be studied in the Illustrations of the *Traité Élémentaire des Chemins de Fer de Auguste Perdonnet* of 1856. It shows his systematic typological investigation of distributive and aesthetic factors of the stations, which stands out its contribution to positioning and the approach to building its railway architectural language. (Hagatong, 2014, p. 9)

3. The railway station was the indispensable image of the bourgeoisie in society, which were the primary users of this means of transport. Railway Stations started to be located in urban centers because businessmen, traders, and dealers demanded them. Hence, its urban centrality was vital to enhance the quality of the building. For this social class and society in general, the Central Station started to be

associated with the "image of modernity" with different architectural styles. (Alves, 2015b, p. 597)

demonstrates that it was not valued as a “noble” and, therefore, it was not worthy of contemplation. This denial of modernity will have its heyday in Portugal during the New Regime. Consequently, there was a need for the construction and renovation of many railway stations.

Nevertheless, even in the most dictatorial Regime, mentalities start to change, and modernity will manage to materialize itself into architecture. It is almost like a thistle that annoyingly grows in that crack on the concrete pavement. It shows that even when one can control and define people’s thoughts and behaviors, there is always a thistle that will remind us that there will forever be those exceptional and uncontrollable minds. Therefore, minds able to question the norms and change convictions and conventions, even if for a small step each time.

3 RAILWAY STATIONS OF THE DICTATORIAL REGIME

During the 1930s, the Estado Novo Regime developed a conscious and clear image of a nationalist ideal to be followed and propagated within Portugal. However, it was sometimes unclear between traditionalist propaganda and camouflaged modernism. It is during this unique decade that the railway infrastructure had its most significant investment up to date. This investment was possible because of the economic investment and a consistent and exhaustive plan for the overall railway infrastructure. For the first time in Portugal, a single state-owned company had the concession of the complete infrastructure, and it was entitled: “Companhia dos Caminhos de Ferro Portugueses” (CP). Therefore, during this particular era, a significant number of railway stations were built and renovated. (Alves, 2015, p. 63)

Up to this period, all railway stations built in Portugal were identical. Buildings respected a regional character, using a hierarchical logic depending on the importance of the location of each station. (Paixão, 2016, p. 62) The opportunity to reinvent these public buildings was developed by teams of architects and engineers, thoroughly controlled by the Regime. It is worth highlighting two main characters who had crucial and distinct contributions to the different designs found in the railway stations. They were Francisco Perfeito de Magalhães (a traditionalist) and José Ângelo Cottinelli Telmo (a modernist).

Perfeito de Magalhães worked on commissions for the Portuguese railway company (CP), and during this time, his designs for railway stations, and their adjacent infrastructures, used a clear historicist and regional language. He undoubtedly developed the motto approved and glorified by the Regime. Each of the railway buildings was composed of an asymmetric composition. The

programmatic distribution was divided between the two floors, having the administration services on the ground floor and the residence for the qualified staff on the floor above. The central porch was located alongside the rear elevation, incorporating the external toilet facilities, supported by stone, wood, or steel columns. It was a balanced composition based on detailed drawings, alluding to the Portuguese House from the 17th and 18th Centuries. (Martins, 2010, pp. 36–37) The decorative elements in their façades reinforced this intrinsic domestic image. These ornamental features would vary regarding the region they originated. For instance, the whitewash applied on the walls or the roof tiles had slightly different colorations, depending on the soil type adjacent to the stations. Other regional elements, such as chimneys or verandas, would help to camouflage these buildings within their environment. Finally, the ceramic tiles applied on the external façades would broadcast images of the region nearby. The Regime used these images as practical marketing tools to instigate local identity and ultimately promote national pride.

One can argue that most of the railway projects that Perfeito de Magalhães developed are during the 1920s, where he worked for the construction sector within CP (Companhias de Portugal) before CP’s reform. However, the design for Aveiro railway station materialized Perfeito de Magalhães’ traditionalist vision, which developed further in the next twenty-five years⁴.

Perfeito de Magalhães alone designed, built, and renovated a few hundred railway stations⁵, where Santarém Railway Station, built in 1933, is still considered his masterpiece. His architectural language was one following the traditional ideals. He was inspired by Raúl Lino’s views on the Portuguese House (*Casa Portuguesa*), not because of Lino’s built works, but mainly for his written legacy. “(...) as he wrote several books that were, somewhat to his dismay, frequently seen as catalogs of traditional buildings’ elements to be used uncritically.” (Jorge & Ramos, 1974, p. 268).

4. His work, therefore, became a benchmark glorified by the Regime, which was the preferred motto used for the railway works, especially during the 1930s. However, during the following decades, CP’s architectural language started to change from the traditionalist style towards a bolder modernist language, especially after Perfeito de Magalhães’ retirement in 1949. Therefore, he can be considered a key influential figure in shaping the overall image of the railway infrastructure.

5. Not all stations were built or renovated during the 1930s, but Perfeito de Magalhães’s entire career. Diogo Paixão, in his Master’s thesis, states that Magalhães built and renovated over 300 stations (Paixão, 2016, p. 60) within a broad spectrum of scales: from small stops (apeadeiros) to large central stations or accommodations adjacent to the railway stations.



Figure 1. Example of a ceramic tile panel in Sines Railway Station (Faisca, A. 2010).



Figure 3. Azambuja Railway Station (ricardo/zone41.net, 2009).



Figure 2. Santarém Railway Station (andarilho.pt, 2020).

In contrast, Cottinelli Telmo's vision is an entirely different story. During the 1930s, he was also one of the principal architects for the railway company (CP). However, his designs aimed for a completely different image from the one advocated by his work colleague Perfeito de Magalhães. Cottinelli first experimented with modern principles in his infrastructural project in 1928 for the river station adjacent to Commercial Square (Praça do Comércio) in Lisbon. Since then, all his commissions for the railway company followed this premises, and some projects were bolder than others. Nevertheless, aspiring for modernity, most of his railway stations, built during this decade, followed the accepted and imposed plan set up by the Regime. Furthermore, he would have to camouflage the modern materials, such as reinforced concrete and Art Déco details, within the traditional set of approved guidelines. Some examples of this particular design are the railway stations of: Carregado (1931), Coimbra C (1931), Tomar (1931), Azambuja (1935) and Vila Real de Santo António (1936). (Reis, 2017, p. 129)

The two architectural languages undoubtedly demonstrate a clear architectural division and somehow sober tolerance within the railway company. However, if one compares the sheer number of stations build or renovated, following the traditionalist and regional style until the 1930s, one can find a few hundred examples. In contrast, those projects using a camouflaged modernist language were only

approximately a couple of dozen. One can, therefore, conclude that the main image of the railway company was a traditionalist one. This fabricated image still prevails today since there has not been an equivalent investment in the railway infrastructure ever since. Even though, considering that the language of the Railway Company moved towards a bolder modernist image after the 1930s. Although, the following decades never managed to build enough buildings to challenge this statement. On the contrary, the investment in railway infrastructure has declined ever since. This decline is particularly notorious from the 1980s and to the point where a significant number of railway stations closed and are still left abandoned today.

4 THE COLLAGED RAILWAYS OF THE REGIME

The Regime successfully managed to broadcast its ideals using its railway stations as propaganda to incite regional identity and instigate national pride. What the Regime did not successfully manage was to perpetuate this message, or did they? Clearly not. The message has not prevailed, but one could argue that the traditional and carefully manufactured image has.

The fabricated image used in these railway stations was created by collaging traditional and regional elements onto their façades without content.

(...) a catalog of relationships and passages from one object to the next, but never content. The objects of the urbanistic collage are reproduced images, the graphic traces of distant objects. (Allen, 1994, p. 4)

As well as a technique used in a cubist painting, where the term collage means removing an object or material without reference to its origin or location, history or meaning. (Rowe & Koetter, 1983) This method, which one can also argue, is entirely

modernist. Since these manufactured images were shallow interpretations of cultural artifacts, what content have they created? Did traditionalist ideals become unconscious methods for modernity to prevail? Or did the Regime focus on a single message, which prevented them from seeing the obvious?

Possibly this is why Raul Lino demonstrated his evident disillusionment in the decontextualized result of the Portuguese housing in 1941. He describes that the rain of eaves, tiles, pillars, and porches had appeared everywhere, subverting all good intentions. It is a subverted “good intention” because there is no reference to the origins of these elements, and therefore, they became actual propaganda objects of a catalog used by the architects of the Regime. Regime guaranteed a “right” and “wrong” way of designing public and private buildings.

More chalets did not appear, but they remained: the chateaux, the little ‘castles’, the Arabian mansions, and the thousand and one products of the fantasy of the curious. As for the reappearance of architecture, which should be the counter-poison to these misdeeds, such a rain of eaves, tiles, bollards, and porches was unleashed that the tide of useless ravages persists today, subverting all good intention. (Lino, 1941, p. 9)⁶

As previously mentioned, a vast number of these railway stations are now left abandoned. They are unique exemplars of a legacy representing repressive ideals that most of us do not wish to glorify. It can be one of the reasons for their despeciation. However, these buildings have a level of complexity that is greater than their original message. Their unique dichotomy between tradition and modernity transforms them into complex objects. Objects that have managed to survive in abandonment for years and their slow renovations are only now happening. Moreover, as previously mentioned, because they are objects without content, they can quickly adapt to new functions and programs, forever inspiring people with their historical presence.

Conceivably, this is one of the greatest lessons of the Regime. Hence, without dialogue or freedom of expression to different ideas, ideals, or points of view shared, refuted, and experienced, there is no “common sense” in designing or in viable architectural content. It would have possibly helped Raul

Lino solve the “specification errors” of the traditionalist elements, which were randomly inserted in the architectural projects during the Regime era, if he had accepted that controversy is a human value and one that we can learn from it.

The railway stations from the Regime were one of the many types of public buildings built in this era. Nevertheless, one can argue that they were the most successful ones to deliver the nationalist message. Therefore, one can conclude that it is possible to design to control ideas and ideals, yet, even in the most dictatorial Regime, one cannot fully control everyone.

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6. Author’s free translation: Deixaram efectivamente de aparecer mais chalets, mas ficaram ainda os chateaux, os castelórios, as mansões arábicas, os mil e um produtos da fantasia dos curiosos; e, quanto ao reaparecimento da arquitectura, que devia ser o contraveneno destes desmandos, desencadeou-se tal chuvada de beiralinhos, azulejos, pilares e alpendrões, que ainda hoje perdura a maré dos arrebiques inúteis, subvertendo toda a boa intenção. (Lino, 1941, p. 9)

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The sublime in architecture: Wright's transcendentalism

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ABSTRACT: Why are certain buildings able to generate the feeling of the sublime? The American architect Frank Lloyd Wright (1867-1859) designed several structures that have this ability. A feeling comparable to the emotions experienced during human interaction with dramatic landscapes. The feeling of the sublime can also be experienced in structures located in different latitudes of the globe, designed by architects who admired Wright's work, such as the Brazilian Vilanova Artigas (1915-1985), the Danish Jørn Utzon (1918-2008), and the Portuguese Fernando Távora (1923-2005). Can we explain the feeling of the sublime in architecture based on Wright's organic principles? We defend that Wright's ability to translate emotions through construction was structured by the American transcendentalist philosopher Ralph Waldo Emerson (1803-1882). We present Emerson's transcendentalism, highlighting the impact that both Romanticism and German Idealism had on his ideas. We also explain Wright's interaction with Emerson's work and its impact on Wright's interest in Japanese architecture. Finally, we relate the organic principles used by Wright to evoke the feeling of the sublime in his structures and buildings designed by architects from different latitudes. We conclude that Wright's exposure to transcendentalist ideas guided him in his quest to bring self-awareness through architectural manifestations that are intricately associated with Nature and our experience in Nature.

Keywords: Frank Lloyd Wright, Sublime, German Idealism, Transcendentalism, Organic architecture

Why are certain buildings able to generate the feeling of the sublime?

Throughout his extensive career, the American architect Frank Lloyd Wright (1867-1859) designed several structures with the ability to generate the feeling of the sublime. The Larkin Building (1904-1906) in Buffalo, one of Wright's first projects, and the Guggenheim Museum (1959) in New York, his last work, are iconic examples of this ability. Wright named his architectural principles 'organic architecture' in a 1908 essay entitled *In the Cause of Architecture* (Wright, 1908).

During the construction of his organic principles, Wright became familiar with Western and Eastern notions of sublimity; both were based on Nature. The transcendental ideas of the German philosopher Immanuel Kant (1724-1804) reached Wright through the American philosopher Ralph Waldo Emerson (1803-1882). For Kant, the highest goal of Art is to generate the feeling of the sublime (Chau, 2000,

p. 324). Such a feeling is experienced, for example, when people interact with dramatic landscapes: it is created by the tension of being simultaneously humbled and exalted and is followed by a sense of self-awareness (Doran, 2015). Japanese culture and art were major influences on Wright's architecture, and, in Japanese culture, the feeling of the sublime is related to the sense of completeness (Elçi & Yurt, 2020). Wright incorporated these two notions of sublimity into his organic concept, which embraced "not only the functional and the rational but the aesthetic and subjective, the symbolic and the spiritual" (Davies, 1982, p.120).

The feeling of the sublime can similarly be experienced through other structures constructed all around the globe, designed by architects who shared a great admiration for Wright's organic principles. Major examples of this effect are the College of Architecture and Urbanism – FAU-USP (1961), in São Paulo, designed by the Brazilian architects Vilanova Artigas (1915-1985) and Carlos Cascaldi

(1918-2010), the Bagsværd Church (1968–1976), near Copenhagen, designed by the Danish architect Jørn Utzon (1918-2008), and The Boa Nova Tea House (1958-1963), close to Porto, designed by the Portuguese architect Álvaro Siza (1933-). These are all celebrated architects who played an important role in the development of the Modern Movement in their native countries (Frampton, 2003).

Can we explain the feeling of the sublime in architecture based on Frank Lloyd Wright's organic principles? In this article, we defend that Wright's ability to translate emotions through construction was structured by the work of the American transcendentalist philosopher Ralph Waldo Emerson. We have divided this article into three sections, besides this introduction and the final considerations. In the first of these sections (Section 1), we present Emerson's transcendentalism, highlighting the impact that both Romanticism and German idealism had on his ideas. In Section 2, we examine Wright's interaction with Emerson's work from childhood until his association with the Chicago School of architecture. In Section 3, we present Wright's interest in Japanese architecture and its affinity with transcendentalism. Furthermore, we associate the references that shaped Wright's organic architecture with the strategies applied by Wright and architects from all over the world, seeking to understand why they generate the feeling of the sublime.

1 TRANSCENDENTALISM AND THE SUBLIME

1.1 *Transcendentalism in America*

Even though Frank Lloyd Wright was generally known for not acknowledging his inspirations, Emerson was one of the few exceptions (Pinnell, 2005, p.24). It is difficult to dispute the fact that Wright's organic philosophy was structured around Emerson's ideas. The resemblance between the description of Wright's organic principles and goals, published in *Architectural Record* under the title of *In the Cause of Architecture* in 1908 (Wright, 1908), and Emerson's ideas, as expounded in his essay *Nature*, written in 1836, is quite remarkable. This gives us an insight into the impact that Emerson had on Wright. According to William Cronon (1994, p.12), to understand “the language and ideas of Frank Lloyd Wright today, one cannot avoid a serious encounter with Ralph Waldo Emerson.”

Emerson played a major role in the development of a philosophical movement known as New England Transcendentalism, which can be described as a:

[...] passionate outcry on the part of a number of brilliant and highly articulate young Americans who had become so intoxicated with the spirit of European romanticism that they could no longer tolerate the narrow rationalism, pietism, and conservatism of their fathers. (Borchert, 2006, p. 572)

German Idealism, a philosophical movement that emerged in Germany in the late eighteenth and early nineteenth centuries (Bowie, 2003), was a major influence on Emerson's work. The German philosopher Friedrich Schelling (1775-1854), who was a key figure in this movement (Trombley, 2012), was introduced to English readers by one of the founders of the Romantic Movement in England, the poet and critic Samuel Taylor Coleridge (Magee, 1998, p.157). Emerson admired Coleridge and met him during his trip to Europe between 1832 and 1833 (Butler-Bowdon, 2017, p. 97), an encounter that eventually led to the epiphany that would structure his transcendental ideas.

1.2 *German idealism: Kant and schelling*

The work of Schelling, like that of other members of the German Idealism movement, such as Johann Gottlieb Fichte (1762-1814) and Georg Wilhelm Friedrich Hegel (1770-1831), was a radical response to, and further development of, Kant's groundbreaking work (Bowie, 2010). Kant's *Critique of Pure Reason* (1781) is the result of his quest “to reconcile the physical and the metaphysical” and his questioning whether there is a place for morality in this apparently “clockwork universe” (Butler-Bowdon, 2017, p.157). As the German literary scholar Peter Szondi (1929-1971) pointed out, German Idealism sought to regain “the unity of subject and object, mind and nature” (Bowie, 2003, p. 49).

Kant incorporated his principle of *the purposiveness* of Nature into his theory of sublimity, further developing it by portraying Nature as “particularly suitable for our judging faculty” (Doran, 2015, p. 204). According to this principle,

[the] idea that nature is meant for us, either for our pleasure (the beautiful) or as a spur to rational transcendence (the sublime), or for our scientific need to perceive organization and systematize (or totalize) objects of inquiry, introduces a unity between feeling, cognition, and morality [...]. (Doran, 2015, p. 205)

For Kant, this principle enables Nature to evoke a sense of “design” – “even if it cannot be considered intentional in any empirical sense” (Doran, 2015, p. 204). From the second half of the eighteenth century onwards, there was a paradigmatic shift in the appreciation of nature in its wild state, such as in the Alps. Nature became valuable because it could not be controlled. For Kant, humankind experiences the sublime when contemplating dramatic landscapes or experiencing threatening natural phenomena, such as lightning, from a safe distance. During this interaction, Nature overwhelms our human capacity to grasp it, and “the idea of freedom is manifested in our sense of the limits of what we can rationally and empirically grasp” (Bowie, 2010,

p. 20). This notion of freedom is related to self-awareness, a feeling generated by these limits. In other words, we do not know what lies beyond them, but, nevertheless, they have been reached. In Kant's eyes, the main goal of Art is to generate the feeling of the sublime (Chau, 2000, p. 324). The Romantic artist William Turner (1775-1851) shared a similar perspective:

[...] nature always reflects and expresses man's emotions. We feel small and overwhelmed in the face of the powers we cannot control, and are compelled to admire the artist who had nature's forces at his command. (Gombrich, 1995, pp. 493-494)

The relationship between nature and the sublime established by Kant clearly influenced Emerson's essay *Nature*, which became a vital reference in Wright's organic architecture. For Eric Wilson, Emerson's implied theory of the sublime draws on Kantian transcendental paradigms (2000, p. 41). In the first chapter of *Nature*, Emerson evokes a transcendentalist discourse of the sublime, associated with the "overwhelming vastness of space – the infinite fires of the heavens – but also with "design" – law, order, harmony" (Wilson, 2000, p. 40).

[...] if a man would be alone, let him look at the stars. The rays that come from those heavenly worlds will separate between him and what he touches. One might think the atmosphere was made transparent with this design, to give man, in the heavenly bodies, the perpetual presence of the sublime." (Emerson, 2008, p. 3)

Kant's theory of sublimity embraced concepts from other treatises. For Robert Doran (2015), there are three classic Western discourses of the sublime, those of Longinus (first century AD?), Edmund Burke (1729-1797), and Kant. The Greek fragment entitled *Peri hypsous* (On the Sublime), written in the first or third century and attributed to Longinus, had a "structuring effect on the modern discourse of sublimity" (Doran, 2015, pp. 8-9). Longinus introduced a dual structure of sublimity formed by the tension between two poles of a single experience – wonder and amazement – linked to the idea of being elevated, which is associated with the notion of going outside or beyond oneself (Doran, 2015, p. 10). This tension of "being at once below and above, inferior and superior, humbled and exalted" is what produces "the special dynamism of the sublime" (Doran, 2015, pp. 10-11). According to Doran, "this dual structure can be found in all the major theories of sublimity," including in Kant (2015, pp. 10-11).

Friedrich Schelling developed his 'philosophy of nature' by seeking to show that soul and nature are

identical (Hansen, 2013). In other words, "both activities of the mind and freedom are inherent in nature's own 'productivity'" (Bowie, 2010, p. 33). Therefore "nature is originally identical with what is known in us as intelligent and conscious" (Bowie, 2010, p. 42). According to Bryan Magee, for Schelling:

[...] there is a crucial difference between this creativity in man and creativity in the rest of Nature in that in man the process is self-aware. In the best of his art man is exploring and getting to understand the innermost depths of his own being. But since man is an integral part of Nature this means that in creative art Nature is attaining profound self-awareness. (1998, p. 157)

Schelling believed that artists could express the "connections between the material world and the immaterial spirit in poetic language by recording the evocation of sensations" (Stougaard-Nielsen, 2020, p. 168).

1.3 *Emerson's transcendentalism*

In 1833, during a visit to the Jardin des Plantes, in Paris, Emerson had an epiphany about the interconnectedness of things, triggered by his exposure to an array of plants displayed according to the natural system of classification developed by the French botanist Antoine Laurent de Jussieu (1748-1836). For Emerson, this display "suggested interconnection, transformation, and all-encompassing unity" (Robinson, 2015, p. 81). David M. Robinson (2015) highlights the fact that the American transcendentalist:

[...] saw vitality in this collection of living plants, the constantly transmuting yet interwoven processes of the natural world, a unified cosmos defined by its perpetual energy and unending metamorphosis. (p. 81)

The aftermath of this experience was the publication of Emerson's essay *Nature* in 1836. This major work illustrates Emerson's advocacy for resorting to the natural world and sublime landscapes, both as a way of extracting knowledge to be applied in contemporary struggles and as a way for each individual to reach self-awareness (Emerson, 2008). In a lecture entitled *The American Scholar* delivered at Cambridge in 1837, described as America's intellectual declaration of independence (Reynolds, 2009, p. 129), Emerson defended the notion that the laws found in Nature are the laws of our own minds (Emerson, 1837).

Emerson's awareness of the importance of resorting to Nature to stimulate human development was a feature that could also be found in Eastern philosophy. In his book *The Tao of Emerson: The Wisdom*

of the *Tao Te Ching* as Found in the Words of Ralph Waldo Emerson, Richard Grossman (2007) traces parallels and similarities between Emerson's writings and the ideas presented by the Chinese philosopher and writer *Lao Tzu*, in his masterpiece *Tao Te Ching* from the sixth century BC.

Written in 1841, Emerson's essay *Self-Reliance* "promoted personal responsibility and the duty always to be oneself in the face of social conformity" (Butler-Bowdon, 2017, p. 93). We associate this notion of the role of "oneself" in the dynamics of social interaction with Emerson's concept of interconnectedness. Every single entity in Nature is a manifestation of a specific set of circumstances and has a role in the construction of the ongoing whole, being both a singularity and a part of the whole. By manifesting the singularity, we can get closer to the understanding of the whole. Emerson was "in favor of an individual intuition that would lead to a state of spiritual transcendence over the physical world" (Trombley, 2012, p. 54). We believe that Emerson's work incorporates both Schelling's concept that "nature is originally identical with what is known in us as intelligent and conscious" (Bowie, 2010, p. 42) and Kant's belief that the main goal of Art is to generate a feeling of the sublime.

2 WRIGHT AND EMERSON

2.1 Context

Frank Lloyd Wright's interaction with Emerson's ideas started from an early age and accompanied him throughout his career, operating as a compass for his architectural associations and interests. It is crucial to point out that the spirit of European romanticism *flooded* the city of Chicago through the influence of German culture (Frampton, 2005). As the British architect and critic Kenneth Frampton (2005) points out, by the time the Columbia Exhibition was held in Chicago in 1893, Germans represented a third of the city's population. At the beginning of his career, the city that Wright encountered boasted two daily newspapers in German and had numerous German clubs and associations.

The glorification of nature in art occurred in parallel with the scientific evolution in biology and botany during the nineteenth century. The most emblematic scientific paradigm shift was the first edition of Charles Darwin's *On the Origin of Species*, published in 1859, the same year that the British architect Philip Webb (1831-1915) and William Morris (1834-1896) designed the Red House in London. This attitude highlights the popularity of the naturalist view of the world during this period, which was understood in accordance with Nature's laws and behaviors.

2.2 Emerson in three dimensions

Emerson's ideas were introduced to Wright in three different ways, which complemented one another: theoretically, through literature; analytically, through the methods of the German educator Friedrich Fröbel (1782-1852); and empirically, through Wright's exposure to the sublime landscapes of North America's Prairie region. Literature inspired Wright to find wisdom in the natural world. During his childhood, Wright was encouraged by his mother to read naturalist writers such as Emerson, Whittier, Lowell, Blake, and Thoreau (Lind, 1992).

Like Emerson, Fröbel believed in the "underlying unity of all things" and was "influenced by the outstanding German idealist philosophers of his time" and by Jean-Jacques Rousseau (Curtis, 2021). Through the Fröbel method, the child came to "understand that there was an inner coherence in all things, and that the material and spiritual worlds were one and the same" (McCarter, 2006, pp. 16-17). The Fröbel method emphasized:

[...] learning from nature [...] structuring every natural and manmade thing - to see each thing 'in its organic unity', as Froebel himself explained [...] Froebel training [...] was directed primarily towards the development of analytical thinking. (McCarter, 2006, pp. 16-17)

Wright's intense exposure to sublime dramatic landscapes from an early age provided him with an awareness of the importance of human contact with the feeling of the sublime in order to achieve self-awareness. His metaphysical interaction with the natural world is linked to Kant's concern "with relationships to nature that cannot be explained by scientific laws" (Bowie, 2010, p. 9).

2.3 Chicago school

Our premise is that Wright's "Emersonian" intellectual upbringing led him to interact with architects who belonged to the Chicago School of architecture. While still in his twenties, Wright had the chance to join the firm formed by the German-born American architect and civil engineer Dankmar Adler (1844-1900) and the American architect Louis Sullivan (1856-1924) (Frampton, 2003, pp. 56-57), a leading figure of the Chicago School and a supporter of transcendental ideas. Like Emerson, Sullivan believed that democracy would be attained "when humanity came to a communication with cosmic principles in an understanding beyond intellectual capabilities" (Menocal, 1981, p. 3).

Sullivan saw himself romantically as fulfilling that fundamental tenet of transcendentalism that held man to be a hero who surrenders his individual volition to nature's supreme will and

who understands that a sublime joy lies in that submission. (1981, p. 3)

Louis Sullivan became Wright's mentor and a fundamental influence on the formulation of Wright's organic principles (Pinnell, 2005). Furthermore, Wright referred to Sullivan as his *Lieber Meister*, which "testifies to the strong hold that German culture exercised over Chicago during the last quarter of the nineteenth century" (Frampton, 2005, p. 170).

Influenced by transcendental ideas, there was a desire among Sullivan, Wright, and several other architects from the Chicago School to react against foreign culture's influences and establish a native architectural language that would reflect the specificities of their time (Frampton, 2003, pp. 61-68). By the turn of the nineteenth to the twentieth century, "the ideas and principles of the École des Beaux Arts already prevailed throughout the country" (Charernbhak, 1981, pp. 99-100). The Chicago School's desire to break away from foreign influences and express the "new" through the uniqueness of a particular context was synthesized in Emerson's own words:

And why need we copy the Doric of the Gothic model? Beauty, convenience, grandeur of thought and quaint expression are as near to us as to any, and if the American artist will study with hope and love the precise thing to be done by him, considering the climate, the soil, the length of the day, the wants of the people, the habit and form of the government, he will create a house in which all these will find themselves fitted, and taste and sentiment will be satisfied also. (Emerson, 2008, p. 113)

Sullivan and Wright were trying to answer the following questions: What genuine phenomena are exclusively present in our country? Which social, cultural, and artistic manifestations were unique in our country prior to the arrival of foreign influences? Their answer included architectural references related to sublime natural landscape formations, vernacular and indigenous settlements closely linked to Nature: physically, esthetically, and spiritually (Frampton, 2003, pp. 61-68).

3 WRIGHT'S TRANSCENDENTALISM

3.1 *Transcendentalism and Japan*

In our opinion, the combination of Wright's intellectual upbringing embedded in transcendental ideas and his interaction with the Chicago School of architecture propelled his interest in Japanese architecture. Wright developed a unique understanding of this culture, which, on many levels,

encompasses aspects and concerns presented by both German Idealism and Emerson's own transcendentalist ideas. One prominent aspect of Japanese architecture is the celebration of the uniqueness of the context and its value as a generator of form by adaptation.

In Japanese culture, the feeling of the sublime is achieved by sensing the awe that belongs to extraordinary phenomena: "It is not something related to vastness or the magnitude. It is the sense of completeness." (Elçi and Yurt, 2020, p. 145). We believe that both traditional Japanese architecture and Frank Lloyd Wright strove to achieve this sublime sense of completeness in the way their structures related to the landscape. In Wright's organic architecture, "the site and understanding of it as it appears in the building is a measure of your success as an architect" (Meehan, 1984, p. 91).

The layout of the Japanese house is in any case neither fixed nor rigid, but free and flexible; in this respect the Japanese house is related to the English country house. The rooms are connected in a natural fashion with each other according to their use without following any rigid pattern. (Yoshida, 1969, p. 74)

This lack of rigidity combined with the principle of the *tatami* module allows the building to simultaneously adapt to the specificity of the site while expressing the relationship between the parts and the whole: the unit describes the whole, and the whole describes the unit. This relationship resonates with Schelling's organicist concept:

[...] that every part exists for the whole and the whole for each part, that everything from minerals and plants to animals and humans, the historical progress of culture, the geological layers of the earth and the heavens, are connected by a common spirit. (Stougaard-Nielsen, 2020, p. 168)

It is important to highlight the presence of Schelling's organicist concept in Wright's organic principles. Schelling's concept can also be associated with the term *Gesamtkunstwerk*, which describes a "work of art that makes use of all or many forms of art" (Tostrop, 2014, p. 179).¹

Another important aspect of Japanese architecture is the desire to integrate man and nature by blurring the boundaries between the manmade and the natural world. Wright defended the unity

1. According to Elisabeth Tostrop, the term "was used by the composer Richard Wagner in his 1849 essay "Art and Revolution". During the 1890s, the concept enjoyed a revival when painters and architects began to integrate different art forms to design exterior and interior architecture".

between garden and building, and he considered that in any virtuous “organic structure, it is difficult to say where the garden ends and where the house begins, or the house ends, and the garden begins” (Wright, 1939, p. 12). Inside and outside are part of a weaving system of spaces, resulting in a sense of spatial continuity. These aspects of Japanese architecture evoke Emerson’s idea of interconnectedness and his belief in the importance of human interaction with the natural world in order to reach self-awareness.

We believe that traditional Japanese architecture embraces Kant’s understanding of the purpose of art by abstracting and translating phenomenological manifestations in the natural world that generate the feeling of the sublime into architecture; through the orchestration of space sequences, light, shadow, tectonic principles, and “carefully constructed views” (Oshima, 2017, p. 63). This orchestration evokes Longinus’s dual structure of sublimity. The tension of being simultaneously humbled and exalted can be experienced in the relative darkness of the interior of traditional buildings, where “Gold, silver, smoothly finished lacquerware, and mother-of-pearl inlay are used to reflect small amounts of light and bring moments of brightness into the shadows” (Locher, 2012). The Japanese novelist Tanizaki Jun’ichirō (1886-1965) evoked the dual structure of sublimity in his essay on Japanese aesthetics entitled *In Praise of Shadows* (1933):

The quality that we call beauty, however, must always grow from the realities of life, and our ancestors, forced to live in dark rooms, presently came to discover beauty in shadows, ultimately to guide shadows towards beauty’s end. (Tanizaki, 1977, p. 18)

In 1905, Wright spent seven weeks traveling throughout Japan. The journey provided Wright with a spatial understanding of building in the context of surrounding mountains and forests, which he noted was “a great educational experience” (Oshima, 2017, p. 63).

3.2 *Sublime: Wright and nature*

According to Emerson’s transcendentalism, Nature is a “sea of forms radically alike and even unique. A leaf, a sun-beam, a landscape, the ocean, make an analogous impression on the mind” (Emerson, 2008:15). In Wright’s architectural production, we identify both a drive and a sense of confidence in trying out a “sea of forms” that would simultaneously adapt to the site condition and evoke “an analogous impression on the mind” of phenomena found in the natural world. Following principles found in Nature, Wright developed two clear

strategies to translate Emerson’s ideas into architecture. In both cases, just as in Japanese architecture, the circumstances of the site were key factors for determining form, spatial sequences, tectonic strategies, and the relationship between inside and outside: all seeking to promote a transcendental connection with Nature. The first strategy was applied in case the site provided a harmonious dialog with Nature. Wright blurred the boundaries between inside and outside through an interlocking spatial sequence that incorporated the site’s morphology and its specificity. The context should be intricately associated with tectonic principles and formal composition to bring a sense of unity. According to Hugh Dalziel Ducan, Wright “accentuated the horizontal plane, the human plane of man on earth” inspired by the Prairie landscape (Ducan, 1965, p. 5). An early example of this strategy is reflected in Wright’s first breakthrough project, the Fredrick C. Robie House built in Chicago (1908-1910).

If the site was hostile in Wright’s eyes, his instinct was to turn his buildings inward. The American architect would instead use his ability to abstract natural phenomena from Nature and generate the feeling of the sublime through dramatic variations in ceiling heights, natural light conditions, and tectonic principles. Similar to Japanese architecture, these architectural gestures evoke Longinus’s dual structure of sublimity. The Larkin building designed by Wright in 1903 (Frampton, 2003, p. 66) is one of the early examples of such a strategy, which displayed a transcendental atmosphere also found in light beams penetrating a cloudy sky in the Prairie landscape. According to Cronon,

[...] in the case of truly urban sites such as those of Unity Temple, the Johnson Administration Building, or the Guggenheim Museum, he shut out the surrounding environment altogether and replaced it with a beautiful inner space [...] (Cronon, 1994, p. 19)

3.3 *Self-awareness in three latitudes*

The atmosphere created by the Larkin building can also be sensed in buildings designed by the American architect Louis Kahn (1901-1974), such as the Kimbel Art Museum (1966-1972) and the Phillips Exeter Academy Library (1965-1972). Architecture for Kahn was “thus the expression of timeless ideals through contingent realities” (Leslie, 2005, p. 9). These timeless ideals, in our view, are embedded in buildings that have the ability to generate a sense of self-awareness among their occupants. Considering this premise, some of Wright and Kahn’s buildings fulfill “Emersonian” and Kantian ideals.



Figure 1. The Bagsværd Church (1968–1976) © Utzon Archives/Aalborg University & Utzon Center.

The Danish architect Jørn Utzon, winner of the Pritzker Prize in architecture in 2003, shared similar architectural concerns with Wright (Frampton, 2004). His admiration for Wright's organic principles led Utzon to North America in 1949. During his time there, he visited some ancient architectural sites in Mexico that had a spiritual connection with Nature and some of the buildings designed by Wright, as well as the American architect himself (Montaner, 2001, p. 89). Utzon enjoyed a remarkable understanding of sublime landscapes and their potential for generating self-awareness. Like Wright, he explored different ways of evoking the sublime in architecture. A pertinent example of his approach is the Bagsværd Church (1968–1976), near Copenhagen (Figure 1), a building that reveals his “Kantian” intention to reproduce the feeling experienced when observing the sky. A sketch by Utzon indicates “the idea of an open-air congregation, gathering on a plain under rolling cloud formations” (Frampton, 2004, p. 19).

Further south, the Boa Nova Tea House (1956–1963), close to Porto, evokes both Wright's desire to integrate nature and construction and his awareness of the horizon as a generator of the feeling of the sublime (Figure 2). Designed by the Portuguese architect Álvaro Siza (1933–), who was also awarded the Pritzker Prize in 1992, this structure displays several of the strategies applied by Wright, as well as others found in Japanese architecture. The articulation of the different spaces, alternating moments of introspection with exposure to the specificities of the site, allied with the interplay of light and shadow, are powerful gestures for evoking the sublime. How the horizon is carefully framed through fenestrations, combined with the orchestration of the floor levels in relation to the rocky landscape, demonstrates

a complete awareness of the place. The Portuguese architect Fernando Távora (1923–2005), who was an important influence on Siza, used to say that the “quality of a good setting gives [a building] a certain air of eternity” (Machado, 2011). Távora's admiration for Wright took him to Arizona in 1960, where he visited Taliesin West (1937), Wright's winter home, and desert architectural laboratory (Trigueiros, 1993, p. 93).



Figure 2. Boa Nova Tea House (1956–1963). Photo: ©Steven Evans.

Wright's influence on Siza is a theme that would certainly benefit from further research. However, the Finnish architect Alvar Aalto (1898–1976), who applied parallel principles used by Wright, was a major reference in Siza's work. An example of this influence is the Banco Pinto & Sotto Mayor in Oliveira de Azeméis (1971–1974), which illustrates Siza's desire to integrate his buildings into existing site conditions (Burkhardt, 2014). According to Marchand, Siza based the axes that geometrically structure this project on specific points of the existing morphology of the site (2015).

It should be noted that Wright's architectural concerns were also to be found in other influential Portuguese architects, such as Raul Lino (1879–1974) (Tostões, 2014), who believed that the conditions of the site played a major role in the generation of architectural solutions (Ramos, 2011, p. 112). Like Wright, besides being exposed to German culture during his education, Lino was also influenced by Ruskin (Ramos, 2011) and acquainted with Emerson and Henry Thoreau's literature.²

Closer to the equator, the College of Architecture and Urbanism – FAU-USP (1961), in São Paulo, designed by the Brazilian architects Vilanova Artigas and Carlos Cascaldi (Figure 3), encompasses similar strategies to those found in Wright's repertoire: the

2. Rui Ramos found copies of both ‘Essays by Ralph Waldo Emerson’ and ‘Walden or Life in the Woods’ by H. D. Thoreau in Raul Lino's personal library.

introspectiveness of the building in relation to the environment, the roof structure incorporating skylights, the interconnectedness of spaces supported by a system of ramps, and the sense of unity between the parts and the whole, built tectonically using exposed concrete. The central atrium, filled with natural light, evokes the transcendental qualities found in Wright's Larkin Building. Wright's influence on Artigas is more explicit in projects such as the architect's first house (1942). Like Utzon and Távora, Artigas experienced buildings designed by Wright during his study trip to the US in 1947, where he also visited dramatic landscapes such as the Grand Canyon (Ferraz, Puntoni, Pironi, Latorraca & Artigas, 1997).



Figure 3. College of Architecture and Urbanism – FAU-USP (1961). Photo: ©Virginia and Vilanova Artigas Institute.

4 FINAL CONSIDERATIONS

Already in 1908, Wright predicted how his organic architecture would evolve:

As for the future – the work shall grow more truly simple; more expressive with fewer lines, fewer forms; more articulate with less labor; more plastic; more fluent, although more coherent; more organic. (Wright, 1908)

We consider that Wright's prediction can also be applied to the work developed by Utzon, Artigas, Távora, and Siza. The ability and the intention to generate the feeling of the sublime is a constant feature in all their work. We feel Nature in these buildings, both in principle and in the way that we experience Nature in its original form. The "Kantian" vision of the goal of Art is thus fulfilled: a feeling comparable to emotions experienced in the presence of dramatic landscapes, often followed by a sense of self-awareness. If we were to compare Wright's first breakthrough project, the Frederick C. Robie House built in Chicago (1910), and his last major structure, the Guggenheim Museum in New York, concluded in 1959 – the year

of his death – it would not be obvious to uninformed eyes that the same architect designed both buildings. Nevertheless, these two projects have been consistently celebrated as uncompromising examples of Wright's organic principles. Wright's aspiration to translate Kant, Schelling, and Emerson's ideas into architecture may explain the origin of this consistency. As Cronon explains:

Wright shared with his nineteenth-century contemporaries a deep conviction that the chief task of science and art was to discover underlying principles of order – present not just in architecture but in literature, philosophy, music, mathematics, and, indeed, in the entire organic and inorganic universe – which would reveal the hidden unity of humanity and nature. (1994, p. 10)

Louis Kahn "often said that it is more important to know what to do than how to do it" (Leslie, 2005, p. 244). Wright knew "what to do" through his exposure to transcendentalism: to create self-awareness through architectural manifestations that are intricately and simultaneously associated with Nature's principles and our experience in the natural world. Just as Emerson did, Wright embraced the changing of times to discover "how to do it" throughout his long career.

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Mind, creation, and emotion: Reinventions in Tomás Taveira's architecture

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ABSTRACT: From the year 2000, with the creation and construction of a building located in the center of Portugal, one of the most well-known, polemic, and controversial Portuguese architects deviates from the normal and utilitarian canons contained in his post-modernist language and enters a more personal, unknown, and entirely idiosyncratic path. This derivation took him to another unknown side and to a singular plasticity (even for him), where, in order to reveal the language achieved in this new path of his, he will not have to find any justification for what he creates other than to expose a distinct language, free of supports. Without ceasing to be post-modern, its content assumes no mimetic relationship with its paradigms; that is, we do not encounter an aesthetic related to classicism in terms of contemporary appropriations, rather an approach to a tendency normally recognized in theoretical standards as a deconstructivist free-style. However, this approach to deconstructivism is much more detached than its frequent language and more linked to the specific actions of the mind and emotions of its creator. This work meets this characteristic through a set of particularities and in direct contact with Tomás Taveira.

Keywords: Architecture, Drawing, Creation, Mind, Emotion

1 INTRODUCTION: RESTLESSNESS AS A FUNCTIONAL CLAIM TO THE CRAFT OF ARCHITECTURE

The detachment from an aesthetic that, for a long time, determined Tomás Taveira's identification as an author, consisting of the adaptation of the classicist canons, adopted to the constructive daily life and assumed taxonomically as post-modernism, was exposed, for the first time, in a building constructed in the year 2000. More specifically, in the Civic and Social Centre of Barrô, in Águeda, in the center/north of Portugal. Since then, Tomás Taveira has responded to his craft through exclusive stimuli, which stem from his unique experience, detached from the world in general and from the place in particular. We also came across this phenomenon in the construction of the Albufeira Marina Complex, a large commission built in Albufeira between 2000 and 2004. Since then, we have witnessed an architecture that is not aligned with any aesthetic formula, composed through restless plasticity, very colorful, spatially disconcerting, and purposefully excessive. Moreover, the site where it was built served exclusively as an embryonic assistant under the finished work. The preterition of place and consequent fading in the face of the impetuous affirmation of its buildings

is the fundamental attribute to merge his architecture since then, generating a dissonance characterized in a confrontation. Increasingly abstract and viscerally profound, it is situated today at the antipodes of a visual superficiality, based on a mimicking of matrixes. One might even say, involuntarily distanced.

This confrontation between his architecture and the place where it is revealed has been wrongly interpreted as a simple misleading provocation, which appears to be merely theatrical, colorful, and disproportionate. It has not been investigated as possessing an intellectual interiority triggered by an action intimately related to a deeply personal interpretation based on an eclectic and active vision of the world and of things confronting them. Expressions of the same impulse and he who cannot satisfy that impulse in one way or another is as guilty of escapism as he who cannot occupy himself in satisfying his physical needs (Rothko, 60). This particular idea of confrontation collides with a principle often misinterpreted in Portugal's architecture and architecture education milieu. Here, over the last few years, a very simple rule has prevailed: the architectural project, to have a sieve of quality, must obey a precedence of constraints predetermined by the place, besides the physical and legal restrictions.

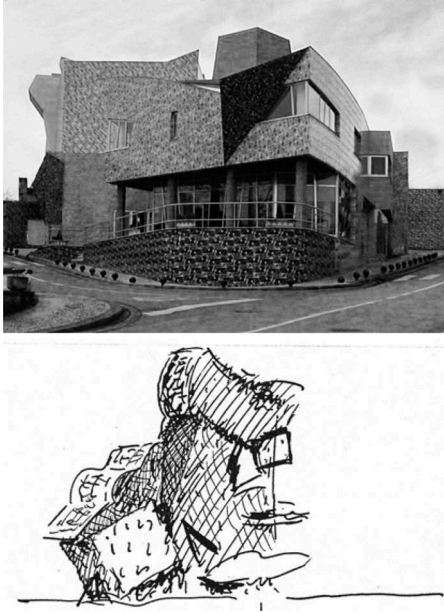


Figure 1. Civic and Social Centre of Barrô, in Águeda, general view (M. Baptista-Bastos 2012). Drawing by Tomás Taveira (Tomás Taveira 2013).

2 ARCHITECTURE AGAINST INDIFFERENCE

The eclectic excess manifested in Taveira's work intends to repress the prejudice that exists in the prevailing culture, in making value judgments about the appreciation of good and bad taste: the classifying baritone that separates the beautiful from the ugly, tragedy from comedy, regular from irregular. His challenge consists in placing himself in the middle of this Manichean opposition, in a proper state of restlessness, repudiating the secessionist taxonomy of the beautiful.

The momentary effect of his destiny as an architect is to create emotions through his mind as a response to the opposition. A destiny irrevocably linked to his personal past, through his memories and the creative encounters cemented between both through mind and emotions – memory and destiny, both, in an abstract dance, whose skill is represented in his architecture as a functional claim. This abstraction is a generating function of the creative start where the result will always be unpredictable. This search comes from a commitment and a detachment. A work detached from previous concepts, to which memory travels at the will of destiny, merging only by the creative will. Creation is not the result of an analytical formula as it used to be, but rather in a dissolution designed without constraints of any kind and in a certain way and related to life, it is in life that man loves, suffers, enjoys,

rejoices, or is moved, in life populated by beings and things governed by ideas. That is why art is born connected to the totality of life; it is a recreation of life itself (Cochofel, John Joseph, 43). This process rises and results in a kaleidoscopic game ensuing from his own conduct before time and space, in a process against the indifference that is also defiant.

3 “IMAGINATION” VERSUS “ANALYSIS”

At present, the uncertainty of “imagination” in architecture has been replaced gradually and wrongly by the certainty of “analysis.” The “analysis” in the panorama of the arts is the vulgarization of a system of values, transmitted as the only and scrupulous means to try to reach an end, which is the election and consequent consolidation of a single style. As long as imagination exists, nothing is determined, much less imposed in a univocal aesthetic doctrine. Contrary to what one might deduce, the treatises on architecture are not the rule to find a solution and consequently enunciate a style. They are manifestos to be interpreted countless times. They are a system for recreating the imaginary through various elements that inform creative composition, assisting the architect without circumscribing him to a single style: it is a tool that assists the architect's creativity, as a grammar for a writer or a musical score for a musician. The imaginary in Tomás Taveira's works recognizes these treatises as a subconscious utility and not be used for a rationalist application.

Currently, the architect seeks “solutions” in a derivative, analytical, and rationalist formula, often guided by teaching in academies, when this is not his vocation. Now, a solution is not disputed or contested because it is the immutable result of an equation; therefore, it is not art, and it does not belong to the ethical domain of architecture. Creating something through the mind is not reduced to the result of an equation but the search for an enigmatic perfection found in harmony: the beautiful.

The emotion that art transmits comes from another unequal emotion: the artist's own. Now, this proposition is not practicable; hence it does not have a definitive result. When starting the architectural creation, its author relies exclusively on the emotions triggered by the mind. This action is no different from that of an artist in other contexts, whether literary, pictorial, or musical, for example. Without emotion, there is no architecture, but there can be architecture without a specific place because any work is metaphysical. There are not many commissions: there is only one commission with uninterrupted and endless narratives in its life, for a project does not end, even if

it is built. It will continue in another way, through memory and imagination. About his most iconic building, the “Amoreiras Complex,” Taveira said in a recent interview that what he wanted was to tear it down and do something else there, and today he would do something even more rhetorical, even more city-like (Taveira, 2018. Interview I, 08/10/2018).

To compromise the architect's role in the world as an artist is to change its configurations to stimulate the revelation contained in his work. A work that acts outwardly as a manifestation of the imaginary, yet, is a restless reconstruction of his ego.

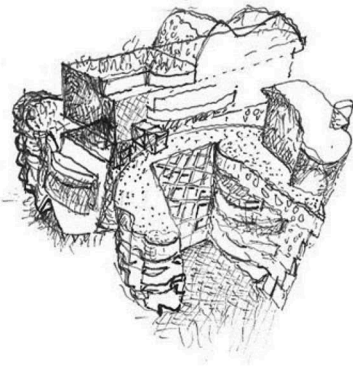


Figure 2. Drawing by Tomás Taveira (Tomás Taveira 2015). Fontes Pereira de Melo Building. Computerized 3D image (Tomás Taveira 2018).

4 PLACE AND ARCHITECTURE

For Tomás Taveira, the geographic territory in which architecture rests, commonly referred to as “place,” no longer exists as a dominant discipline category because it is, allegedly, not the superlative condition during the creative impulse. In its aesthetic category, there is no predominance of territory over idealization, but rather the opposite. The architect reinvents the territory through his own codes, directly related

to his profession, and not in preconceived processes determined by the theory of architecture in relation to territory. No value judgment existing where he will intervene will bind anything that grounds his imagination, but rather a biased memory recreated for a future existence: the architect's right to free will as an artist as the main influence for his intention. The site on which his architecture rests is no longer a consequence elaborated through a methodology between the past and the present. Now, his only link is the creation of an autonomous object. An idiosyncratic architecture that is developed exclusively by the emotions outlined in the drawings that represent it. The successions of singular and abstract memories relate to the place, blending in its perception and understanding. Other circumstances arise from the result between this system and the action before the topography and the surroundings, adding another regulating pattern: the territory becomes dependent on the action of drawing, and the drawing is the mentor of a dominating ideology for architecture.

It stands opposite to the authoritarianism established by Heidegger in his famous lecture, adapted for the book “Building, Dwelling, Thinking” (1951), where architecture is only itself, where the idea of space is structured with the notion of place. Spaces receive their essence not from space but from place (Heidegger, 23). Now, this statement has been channeled to a single purpose, in which the essence of architecture simply depends on the place in which it is situated. From this arises the verdict that man only inhabits his surrounding space when he risks adapting to an environment, after identifying with it, but always in a submissive relationship. This relationship of architecture depends on the hierarchy emphasized by the environment over the human being. Tomás Taveira explicitly confronts this philosophy, preferring the independence of imaginative fiction existing in the multiple acts of creation. These fictions can be memorialistic, personal, or even intimate and indecipherable; the autonomy of imagination, as the inventor of differences, without needing any dependencies. There has to be a prerequisite, an atmosphere, an environment, and finally, the architect becomes conscious in that dilution, and more emphasis is placed on the intuitive experience of emotion than on the practical result of perception.

Consequently, Taveira contradicts Norbert-Schulz, whose authority in the current spectrum of European architecture is notorious. By following guidelines based on the Heideggerian hierarchies between space and place, Norbert-Schulz opposes everything concerning a creativity subordinated to a pre-existence. An analysis of the artificial place (architecture) must be founded on a natural basis (pre-existence), where it must find a relationship

with the natural environment (Norbert-Schulz, 50). Currently, the mental and creative process of Tomás Taveira educates itself exclusively in the emotion generated by drawing to create an architecture that has nothing to do with this analytical formula of promoting a result. An independent spatial existence disembodies itself from the place, not necessarily depending on it to form an outcome. The outcome of the project does not depend on anything but its memorabilia.

Creativity is not explained: it is designated.

5 THE DRAWING FOR HIS ARCHITECTURE

The worst thing that can be said about an architect is that he “draws well.” The same is true of a writer when it is commented that he “writes well” or of a painter that he “paints well.” Drawing is his specific language to communicate, and that intentionality starts from mind to hand and vice versa. “A young journalist turns to James Stirling and says like this: ‘do you think to be a good architect you have to draw well?’ James is left thinking. ‘I don’t know if to be a good architect you have to be good at drawing, but there is one thing I do know: all the good architects I know draw very well.’ Which is true. Because the first state of the architectural creation is often the hand drawing of an idea, and vice versa, sometimes it goes from the hand to the head as well” (Taveira, 2018)¹.

For Taveira, the ultimate stage of artistic creation is drawing as the matricial and total value of the architect’s creative mind. Now, the creative energy does not need any theoretical or historical support, as he floated himself years ago. Drawing concentrates this knowledge without exhibitionism or the need to relate it to other human expressions of communication. There is no eagerness to explain its language, for its unique value is information without artificiality. He resorts to intellectual archeology, enclosed in his personal memories and inseparable from his profession, to find the best decision in his research. This autophagic process, where memories are recycled to perfect the information retained in his drawings, presents itself as the moral connotation that determines his autonomy as an author. The false idea of decadence conveyed from a formalistic excess in his drawings is absent of critical observation, being used by social critics, not at all applicable to the description of artistic processes; rather, it presents a moral connotation (Rothko, 64). It escapes the procedural hermetism of the craft and examines refuges embedded in a communication based on the search for the codes contained in the drawing. The drawing is the bed that welcomes all artistic expressions: from those less identifiable a priori, such as literature, to music, to those dependent on it, such as painting, sculpture, and architecture.

1. Author’s free translation.

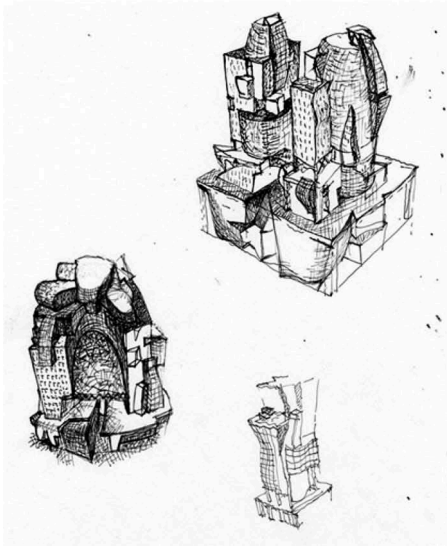
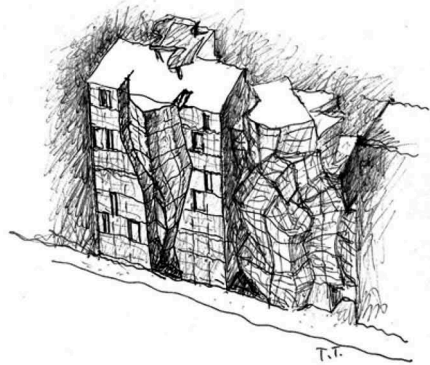


Figure 3. Drawing by Tomás Taveira (Tomás Taveira 2015). Drawings by Tomás Taveira (Tomás Taveira 2014).

6 IDIOSYNCRATIC ARCHITECTURE

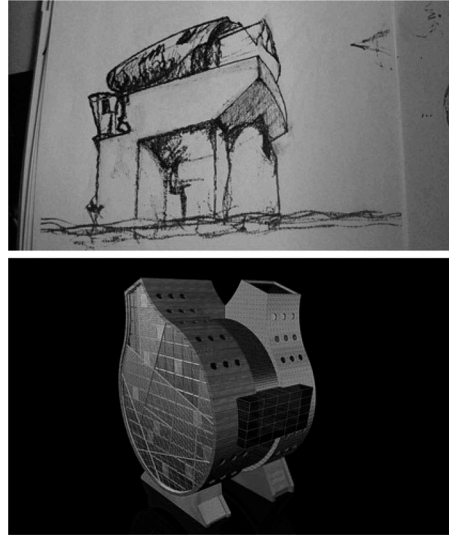
The idiosyncratic dexterity, in which Taveira’s architecture navigates, lies at the antipodes of the latest aesthetic trend, predominant and taxonomically recognizable as “minimalism.” Contemporary minimalism is the latest stage of postmodernity and the Trojan horse of neoliberalism on the global scene. It began in philosophical practice, passed through literature, music, painting, and culminated naturally in architecture. It exposes the illusion sustained in an artistic expression founded on simplicity and elitism, concealing a state-of-the-art constructive technology and a radical formalistic effort. Paradoxically, it defends the recognition of art based simultaneously on two factors that are constitutive sobriety and constructive frugality, extracted from the philosophical

foundations of the extinct Modernism. The aesthetics in Tomás Taveira's architectural production has also deviated from its own post-modern conception, sustained in history and anthropology. It is currently supported on ontological principles defended in phenomenology, close to a Husserlian understanding of the life-world, where everything derives from intuition, even science – a phenomenon adverse to the organized expression of minimalism. Now, the essence of phenomenology in a work of art is the sense of intuitive thought on the way to understanding (Husserl, 112).

The intuition of his work represented through drawing is conveyed as the peculiar value in its externalization. Like an open Matryoshka doll, as it closes in on itself, its expanded form does not differ from its origin, except in dimension: from the small scale of his drawings to the large scale of his buildings, there is no visible metamorphosis because the different levels of processing of intuition remain from beginning to end. Nothing is disguised, everything is exposed, and the most curious thing about his drawings is that being almost all outside in, they contain an opposite cognitive intention, without any effort or acrobatics to hide it. His drawings are idiomatically intuitive, albeit theatrical in their outcome, and are not influenced by other trends and demonstrations of fashions from other prevailing styles, such as minimalism.

7 DREAM IN MEMORY

In the movie “Inception” (2010), directed by Christopher Nolan, dreaming a dream in another dream in succession, through a sequence whose beginning is lost in the end, becomes the reason that underlies a process analogous to that of architect Tomás Taveira while designing today. The sequence of drawings superimposed over the first obeys the essential principle of his creative process, which is the dissatisfaction with the result. A dive into the various sequences of memory, generated exclusively by the mind and in emotions, manifests an almost immaterial expression in his drawings, recalling the 101 architectural fantasies of Yakov Chernikov in 1933. A set of enigmatic and fanciful drawings, in a quest to discover different representations; searching incessantly, until the embryonic origin of memory, for relationships between the various levels of information and past experiences, to be able to assimilate a formal originality visually represented in a drawing. Currently, the first act of communication in Tomás Taveira consists of creating through the mind a set of emotions intimately connected to the drawing. These emotions carry an unusual intensity that is, one might even say, far removed from the aesthetic hegemony of today. Because it is exclusive, it carries the burden of this characteristic.



Figur 4. By Tomás Taveira (Tomás Taveira 2016). Computerized 3D image test of building study (Tomás Taveira 2018).

8 CONCLUSION IN A TONE OF FUNDAMENT

Paradoxically, the ideological model that Tomás Taveira defended for decades, linked explicitly to the axioms of postmodernity, no longer has an immediate identification throughout his 20th-century work. An ideology based on consumption and the idea of copy using models from the historical past, molded on industrial materials and construction technologies, no longer exists today in his projects. This former guideline, clearly related to a neo-formalism of classicist inspiration and adapted to local anthropology, has suddenly disappeared in the current period of his professional life, under the formula of an epistemological cut in his career. The idea of copying, based on a consumerist ideology, also ceased to belong to his lexicon, as none of his works relate to each other, much less to preconceived images of other buildings or styles. All that faded away. Now, everything is idiomatic.

This circumstance does not often happen in today's architectural landscape, and the prevailing intellectual elite does not support his work. Although he has done a considerable amount of built projects since then, it is not very widespread in the more hegemonic influences of the new neoliberal thinking. Nor is it consented a priori by common sense. These vicissitudes are of little or no interest to him, nor does he shy away from this idiosyncratic path because he gathers specific ethical referential, which do not resort to the aid of mimicry to imagine what

is most important to him. Therefore, the judgments of taste related to his work are never dependent on a previous concept, nor are they attached to “adherent” images. There is a relationship to emancipated deconstructivism, but this affinity becomes misleading because his allusions are unusual.

However, his primitive identity subsists as the initial cry, consolidated in the power of drawing and the appealing advantage of color, both conveyed in an architecture without patterns, conventions, and preconceptions, be they formalistic or informal; an exclusive aesthetic, inserted in a restricted ethic. We inhabit a world where creativity is only adjusted to its individual emotions, exposing a markedly intuitive and intimate architecture that is experimentalist. We inhabit a practice where the fantastical scale of the drawing is demultiplied to the real scale of the building without compromise, sometimes approaching a surrealist abjectionism. The matter that constitutes architecture converges exclusively from drawing in an inseparable fusion. “Attachedly” detached. Ever deeper and simultaneously elevated.

This work inaugurates the beginning of a research project that will progress into a book by the author, further developed through a dialogue between the text and the drawings of Tomás Taveira. An exhibition and post-doctoral research on the theme will be organized.

ACKNOWLEDGMENT

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Complexity and contradiction in Eduardo Souto de Moura's architecture: Some remarks on his creative process

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ABSTRACT: The desire for a complete context for life implies considering poetry as a fundamental part of dwelling (Heidegger, 1951)¹. This idea is stressed by António Damásio, who claims that there is no reason without emotions (Damásio, 1995).

This chapter title stems from Roberti Venturi's book *Complexity and Contradiction in Architecture* (1992), firstly published in 1966 by The Museum of Modern Art, New York. According to Venturi, architecture has always been ambivalent. Hence, both its adequacy and intangible dimension –symbolism, and emotions we feel amid spatial experience - have always been based on those two concepts.

On several occasions, Souto de Moura refers to Venturi's work as one of the most important books written since the 1960s. It is not a coincidence that he explores a *space* between reality and simulation. He feels that naturalness does not depend upon the truth. Together with the circumstances and adaptation - one of the words he appreciates the most - such paradox is fundamental for finding the proper solutions, which take place far beyond objectivity.

This article explores that context. Souto de Moura praises both tradition and symbolism in architecture. In summary, his work accepts complexity and contradiction as fundamental architectural concepts, which means he eventually puts authenticity into perspective.

Keywords: Emotions, Complexity, Contradiction, Eduardo Souto de Moura, Portuguese architecture

1 APPROACH

Firmitas, Utilitas, Venustas

Since Vitruvius, i.e., since Architecture is identified with the figure of the architect, this discipline - Architecture – ties the act of creation with emotion. The triad proposed by Vitruvius is a founding definition of Architecture in its essential features even today. Hence, we may say that Architecture implies that the individual who uses it has a spatial experience merged with different emotions.

In fact, if the first two words refer to objective concepts, the latter, *Venustas*, evokes subjectivity, which is always inherent to the concept of beauty since this concept depends on individual judgment.

Therefore, it is true that people play a central role in Architecture, both in the creative act and in the experience of space.

To that extent, beauty cannot be conceived without considering that it triggers an emotional reaction, as an objective to be achieved - while focusing attention on the creator's action – and as a reaction while people have an immersive experience in space. In other words, the poetics of space and the emotional reaction are closely linked: architecture matter is not totally coincident with measurable and objective issues.

If we go back to Greek culture, we can see that the columns of the Greek temples manipulate objectivity to achieve a visual effect that takes place outside reality. According to such idea, the subject plays, once more, a central role in this discourse.

The word Parallax stems from the Greek *pará-laxis*, which means “to change”: so, that concept refers to a change of perception. Who looks into the columns is at a time responsible for such a mistake and for correcting it, doing so with his/her own perception too.

Consequently, the archetype of perfection recognized in the Greek temple over the centuries does not exist by itself, as such perfection does

1. Heidegger develops this idea in “Building, Dwelling, Thinking, which was originally published from a lecture Heidegger presented in 1951 under the title “Bauen Wohnen Denken”. Cf. Heidegger, M. (1951). *Building, Dwelling, Thinking*. [Conference presentation]. [s.n.], Darmstadt, Germany. https://www.academia.edu/34279818/Building_Dwelling_Thinking_by_Martin_Heidegger_Translation_and_Commentary_by_Adam_Bobeck_

not totally rely on its features. Rather, it depends on the interaction between the object that it is in itself, with its own properties, and the one who looks into it: according to an emotional and spiritual way, the idea of perfection takes place outside architecture.

As such, architecture does not fully depend on reality. Actually, Architecture overcomes it, and it has always been just like that.

Even modern architecture, which is often seen as directly driven by the interaction within the binomial needs/form - *form follows function* – it is, after all, the result of the same type of conceptualization that does not entirely rely on quantifiable, measurable, and objective properties. Le Corbusier (1887-1965), one of the masters and ideologues of this historical period, allows a clear judgment on this theme if we consider how he defines his profession: “*L’architecture est le jeu savant correct et magnifique des volumes assemblés sous la lumière.*” In fact, both the wise, correct, and magnificent interaction between the volumes and their placement under the light as the subject of its own effects is nothing but a means to express a poetics that architecture must fulfill. According to Le Corbusier’s aphorism, Architecture is as much a sensory matter (since it depends on the human senses), as the arrangement of volumes between themselves and in space, in the context of architectural composition. Thus, light and composition cannot be understood in the scope of architecture if they are not considered intangible material that may contribute to characterize a precise environment. To that extent, light and composition take part in the set of features that, after the architect’s intentional action, are understood by people in the immersive spatial experience due to both their cultural framework and their senses. Therefore, it can be said that light and architectural composition transcends an objective and physical dimension. In both cases, we are talking about a sensory matter.

On a similar basis, Mies Van der Rohe posed architecture a challenge, which cannot be solely seen as a physical objective: “*Less is More.*” Behind those simple words, he wanted to express a broader purpose, surely focused on architectural goals, a poetics based on seeking the essence of things. Summing up, his goal was to emphasize the architectural atmosphere and the clarity of form in itself.

This approach leads the arguments back to the emotional field, where every complex process of creation decisively occurs: it is about ordering reality according to a line of reasoning that implies being aware of reasoning itself, that is, being aware of intelligence (Damásio, 2020). In other words, emotions are inseparable from thinking. Man passionately follows his desires, which the human mind transforms into rational behavior: perception,

learning, memory, and intelligence are inseparable (Damásio, 1995). According to Damásio’s research and experiments, emotions are decisive to rational thinking.

This question can be seen both from a scientific and a philosophical point of view. According to Espinosa, we do not desire something because we think it is good, but on the contrary, we say that something is good because we desire it (Espinosa apud Camps, 2021, p. 109).

This complex context far beyond rationality expands itself in the scope of architecture. Idea and design are inseparable parts of the project, within a process with its own complexities and dialectics.

There will always be an argument constructed over a Platonic intuition, just as there will be intuitive moments in a rational response to a project argumentation... Thus, as it is neither a purely Platonic idea nor the pure application of a rule, we need to consider the relationship that is established between the idea for the project and the process of constructing it, as the process will be either the confirmation of the idea or the opportunity for it to manifest itself (Providência, 2016, 124).

Furthermore, a true Kantian thinker is a patient who suffered an injury in the prefrontal cortex, as Damásio himself suggests. In other words, solely a person without any type of emotions can experience any behavior completely driven by reason (Damásio, 1995).

In short, emotions form a fundamental feature within the two moments in which architecture can be divided: its birth – concerning the creation process - and its life - when used. Moreover, it can be inferred that there is a correlation between the architectural solutions found through rational means and the non-rational dimension of Architecture. The richer the former is, the much more intense the latter may be. This idea involves a proportional dimension between the use of reason and the emotional field.

This hypothesis leads us to Eduardo Souto de Moura’s creative universe. He is often considered a cultured modern architect because he praises the modern legacy and applies it to his work with pragmatism, intelligence and expertise. His architecture is eloquent, and that a significant number of his proposals have a simple and crystalline appearance, driven both by some known references (mostly Mies Van der Rohe) and the modern architecture principles. However, it is worth thinking about the intriguing pillar located in the living room of the house in Quinta do Lago (1984-2018). It can lead us to some remarks on the author’s work. By not touching the ceiling (thus, without any structural purpose), it gives rise to a doubt: is reality that simple?

2 MAIN IDEAS

In *Complexity and Contradiction in Architecture*, Robert Venturi (1992)² shows how architecture has been thought, throughout history, based on multiple layers of meaning, overlapping elements, and contradictory effects or, in other words, on polysemy.

Framing architecture in the context of complexity he stands for, regarding a craft with centuries of history, Venturi says:

A building can include things within things as well as spaces within spaces. And its interior configurations can contrast with its container in other ways besides those of the Villa Savoye's. The circular perimeters of bearing wall and colonnade in Hadrian's Maritime Theatre at Tivoli produce another version of the same spatial idea (Venturi, 1992, p. 71).

The closeness that the author identifies between Adriano's Maritime Theater (in Hadrian's Villa, Tivoli) with its set of spaces within a circular perimeter, and the Villa Savoye (Poissy, 1928), by Le Corbusier (1887-1965), a house organized within a square boundary that includes a patio within its limits, shows an important idea: between the Classical Antiquity and the 20th century can be found a continuity. Venturi refers to an idea of architecture that defines itself with multiple layers, not competing with each other but rather converging towards a complexity that seems contradictory at first glance.

There are multiple examples in the book, but the one built in Portugal according to the Mannerist period in Tomar, in the 16th century, is eloquent concerning the same kind of ideas. The author focuses his words on *Claustro Grande* (the main cloister), in Convento de Cristo, by Diogo de Torralva (1500-1566)³.

...the complex superadjacencies in the cloister facades at Tomar compose a wall validly containing spaces within itself. The multiple layers of columns -engaged and disengaged, large and small, directly and indirectly superimposed - and the profusion of superimposed openings, architraves, and horizontal and diagonal balustrades create contrasts and contradictions in scale, direction, size, and shape. They make a wall containing spaces inside itself (Venturi, 1992, p. 62).

Although Venturi considers that Mies Van der Rohe developed a simplification regarding problems and solutions (1966, p. 16-17), setting him apart from the given example - Le Corbusier and his Villa - both architects are not really that distinct. It can be said that the theme of complexity is also an essential subject in Mies' works. For instance, when we climb the stairs separating the street from the Barcelona Pavilion (with Lily Reich, and built in 1929), we feel surrounded by the walls that limit the water mirror. Are we inside or outside? And if we move and remain under the slab that extends beyond the limits of the interior spaces, staying amidst the planes defining the in-between spaces, which will be our precise location? Likewise, when we stand in the courtyard next to the Dawn sculpture (Georg Kolbe, 1877-1947), how do we understand the limits of interior and exterior spaces?

Those different layers of meaning refocus this theme on the interaction between author and users, considering a level of complexity in which reason is insufficient for understanding Architecture:

Contradictory levels of meaning and use in architecture involve the paradoxical contrast implied by the conjunctive 'yet' (Venturi, 1992, p. 23).

Summing up, Venturi states that "Both-and emphasizes double meanings over double-functions" (Venturi, 1992, p. 34)⁴.

Robert Venturi is not far from Aldo Van Eyck and his book "The Child, The City, and The Artist" (1962). Here, Van Eyck walks along the paths of ambivalence, polarities, and complexity as a way to explore ideas on spatial solutions based on multiple meanings and, thus, built upon richer features. One of his concepts, the *in-between realm* (Van Eyck, 1962, p. 54) - from the house to city-scale - refers to reciprocity, that is, the idea of reconciliation between conflicting polarities. For Van Eyck the *in-between realm* defines the interaction between the *twin phenomena*: part/whole; large/small; many/few; inside/outside; unity/diversity; open/closed; mass/space; change/constancy; motion/rest; order/chaos; individual/collective (Van Eyck, 1962, p. 61).

Aldo's concepts bring Mies Van der Rohe's spatial solution closer to the themes focused on in Venturi's book. Moreover, Mies Van der Rohe challenged the truth of materials, moving away from the objectivity commonly recognized in Modern Architecture. His pillars at the vertices of the

2. The book was published for the first time in 1966, by The Museum of Modern Art, New York.

3. Diogo de Torralva was the architect responsible for the works in Convento de Cristo, Tomar, from 1554 onwards, after João de Castilho death (1470-1552). *Claustro Grande* or Cloister of D. João III is considered Torralva's masterpiece. The works were finished after Torralva's death, by the Italian Filipe Terzi (1520-1597), which already took place under the domination of Portugal by the Spanish Crown (1580-1640).

4. Vd. Venturi, R. (1992). *Contradictory Levels: The Phenomenon of "Both-And" in Architecture*. In Venturi, R. (1992). *Complexity and Contradiction in Architecture* (23-33). New York: The Museum of Modern Art; Venturi, R. (1992). *Contradictory Levels Continued: The Double-Functioning Element*. In Venturi, R. (1992). *Complexity and Contradiction in Architecture* (34-40). New York: The Museum of Modern Art.

American skyscrapers are not the truth; they are rather a search for beauty. Nevertheless, despite their use as cladding elements covering concrete pillars, the bronze pillars are not mere ornaments. Instead, according to all visible structural elements, they simulate an order, addressing a desire for coherence and unity. Thus, despite losing their structural purpose, these metal profiles are conceived as devices for the architect to express himself. So, objectivity is overcome in favor of architecture matter itself⁵.

Souto de Moura refers to the pillar of Mies' Skyscrapers to claim that beauty should not be found in the truth, but rather in the perception of the truth: According to Souto de Moura, the German architect was also aware that Plato's maxim, which considers that *beauty is the splendor of truth*, has no possible application in architecture. Souto de Moura goes even further to state that the truth may be truly ugly.

Authenticity? No. I am more concerned about creating a system that seems to be authentic. I try to achieve a congruence that can be built. It could be the re-presentation of an authenticity, not authenticity in itself. Any architecture that strives for authenticity ends up producing a monstrous object. ...There should be congruence in the process, in the development of each project. If one decides to use stone in one way, we need to discover a consistent way to work with that material that makes sense. (Souto de Moura apud Castro, 2005b, p. 9).

Eduardo Souto de Moura is much more concerned with a coherence that would give reality an understandable meaning. The meaning of reality itself does not concern him at all. He does not believe that he should submit himself to an ontological sense, for he recognizes that it is not enough for the architecture thinking, and it may be contradicted or denied by reality. As a result, Souto de Moura claims that buildings can look like something they are not: their form, space, and atmosphere should result from an idea instead of being faithful to the truth.

...Now that we have done away with the resistant wall thanks to Dom-ino structure – which is the system that is used – and we have replaced it with a skin –which, whether you like it or not, is the other condition that we work with – talking about authenticity makes no sense

...I do not believe that when we use stone, we necessarily have to build resistant walls. I don't like anti-natural solutions.

5. The cross shape pillar used, for example, at the Barcelona Pavilion and the Villa Tugendat (1928-1930, also designed with Lily Reich) has a similar meaning in this context. Its final appearance, made of polished stainless steel, covers the resistant structural elements.

...So I am not interested in the ethical problem of being authentic because I am not concerned about the authenticity of the object. I am, however, concerned about encouraging a simulation of the truth (Souto de Moura apud Castro, 2005b, p. 9).

Souto de Moura's words show he is concerned about the ambivalence that can take place between truth and simulation. For him, that space defines a founding problem in architecture, and to explore it appears to be fundamental to find the proper solutions.

Quoting the Portuguese professor and essayist Eduardo Prado Coelho (Lisbon, 1944-2007), the architect claims that "You can only imitate the inimitable because only the inimitable is distinctive and strong enough to be imitated" (Souto de Moura apud Morales, 2015, p. 27). And it is in both Mies' and Siza's works, whom he considers inimitable (Souto de Moura apud Castro, 2005b, p. 11), Souto de Moura finds possible answers. The search for perfection he identifies in the work of Mies Van der Rohe, which he calls "a life-long search for the perfect platonic form" or even an "archetype of architecture" (Souto de Moura apud Castro, 2005b, p. 11), does not depend on the truth. On the contrary, as Eduardo Souto de Moura asserts, it depends on simulation, false structures, claddings that give the buildings their real appearance. According to a suitable visual effect, Mies lied about his detailing, usually hidden underneath other materials (Souto de Moura, 2019, p. 502).

Souto de Moura also turns to Álvaro Siza to clarify his doubts. In Santiago de Compostela (CGAC, 1988-1993), Siza uses a covering made of stone to achieve the appearance of stone construction. When the cladding reaches the corner, the stone 'angles' simulate the stereotomy. However, diversely, when the cladding reaches the windows, Siza does not do the same, and one can see the real thickness of the cladding made of stone. At first glance, the difference seemed incongruous: he thought the real depth of the building should never be seen from any angle (Souto de Moura apud Castro, 2005b, p. 11). Nevertheless, he formed a different opinion after reading a book about Nietzsche: "the face that is telling a lie is saying the truth" (Souto de Moura apud Castro, 2005b, p. 11).

Referring to his own work, Souto de Moura reminds us of his action in Torre Burgo (1991-2007), according to similar principles:

...their theatrical effect was studied in depth. I assume that it is not true. Architecture doesn't have to be real. The Greeks were not real when they set their Triglyphs where the wooden beams were fitted, and then covered that with the entablature (Souto de Moura apud Grande, 2009, p. 15).

Due to his commitment to this debate, he turned his attention to Jean Baudrillard (Simulacres et

Simulation, 1981) and Italo Calvino (*Lezioni americane. Sei proposte per il próximo millennio*, 1988): “you have to confront complexity” and to accept “the manipulation of material condition or at least their perception” (Souto de Moura apud Castro, 2005b, p. 17). It is under these considerations that his architecture must be understood. For Souto de Moura, contradictions and complexities are as important as any other materials to build and produce strong architectural effects. His words provide a valuable insight that takes us back to the first part of this article. Souto de Moura is a modern architect because he carries the inheritance of a discipline with centuries of existence to the present (Rodrigues: 2013): in that condition, he works with contradictions and complexities to achieve the highest goals, like it always has been throughout history.

I trust the idea of continuity in architecture, an architecture that is not based on ruptures or big changes, but includes continuity, with issues that remain, what we might call ‘classic’ (Morales, 2015, p. 17).

Architecture deals with specific problems (functional, technical, economic, constructive) but, at the same time, it should provide, by itself, a reflection on its own processes and methods as a discipline (Castro, 2005a, p. 24) – architecture will only be able to keep its social relevance as long as it will be able to update itself permanently.

Both by updating the principles of Modern Architecture (with the inevitable reference to Mies Van der Rohe - to Luís Barragán or even Richard Neutra, for instance) and also by deepening the disciplinary awareness, Souto de Moura is willing to anchor his design and thinking in the roots of the discipline itself. By doing so, he is updating architecture principles on a dialect basis.

We shall look into how he changes the pre-existing context in a sort of reinvented reality.

I often do that, it is a sort of manipulation that I implement in my projects. I alter the pre-existence to adapt it to what I want (Souto de Moura apud Grande, 2009, p. 21).

The conversion of Santa Maria do Bouro Monastery (1989-1997) is a significant example of how the architect sees pre-existing architecture. For him, it is available material for use or, in other words, for manipulation. The Convent was nothing but ruins before being transformed into a luxury inn. Somehow, Souto de Moura kept the appearance of the ruins. The new building (as the architect sees it) is covered by a flat roof on which spontaneous vegetation grows. Aiming to achieve similar goals, the detailing hides the frames, emphasizing the holes in the walls. The cloister remained uncovered.

“I didn’t make a building out of a ruin. I made a modern building” (Souto de Moura apud Grande, 2009, p. 21).

With pragmatism, the uncertainty he faced in the complex framework of specific problems led him to choose the 20th century as a temporal reference for the project. The overlapped temporal strata did not give him irrefutable clues about the building, which would allow him to deal with history with a different certainty. As he said, he designed a contemporary building using the old stones (Souto de Moura apud Grande, 2009, p. 22).

The ruins are more important than the ‘Convent’; they are the elements that are laid bare and ready for manipulation” (Souto de Moura, 2005, p. 28).

Such kind of approach, which is ambivalent, is a key factor in understanding the architect’s work and his insight into the disciplinary debate. He moves in the field of complexity, which means multiple meanings and overlaps. Souto de Moura does not see antiquity as an abstract entity. For him, an ancient entity is, in architecture, a succession of times and spaces throughout history, and contemporaneity is just another layer in that process (Souto de Moura apud Güell, 1998, p. 127). In other words, reality has several strata, and the architect does not need to confront them. “The intelligent thing to do is to convert complicated problems into simple ones” (Souto de Moura apud Güell, 1998, p. 127). That is to say, one should accept and deal with complexity. In that context, the tension between natural and artificial is another conceptual instrument of his work:

I always like to work in a double register: natural/artificial. mineral/vegetable (Souto de Moura apud Córtes, 2015, p. 269).

This leads us to another significant idea. As we all know, praising ruins is an aesthetic attitude that goes back to Romanticism. Ruins have that strong power provided by a balance between nature and the artificial world, which is real in the present and the future. The notion of time provided by ruins does not rely on any boundary between past, present, and future: somehow, the ruins crystallize the time.

In fact, the ruins embody the ideal of a symbiosis between built and natural. The small house in Gerês (1980-1982) can be seen as the paradigm of this statement, and despite being one of the architect’s first works, it systematizes part of his thinking. In the small house in Gerês, a concrete slab interrupts a granite wall as the passage of time would have been responsible for the decay. However, this is not only a theme that evokes the effect of time in architecture. It is also the result of his design. The ruin was

simulated by the way Souto de Moura altered the former construction. Through the “truth” he builds, Souto de Moura shows his way of seeing his profession.

I think of the fusion of art or architecture with nature in the sense that nature doesn't manifest itself. A I already said in speaking about culture, nature, in global terms, is a whole tied to a certain kind of Pantheism. I am referring to nature as to a set of natural things, our envelope, which comprehends everything from the mineral, vegetable, or animal kingdoms to the very artefacts that have come to be emotional elements of our daily world. When these artifacts are natural, they belong to or form part of the legacy of the geography that surrounds us. This is the sense in which I speak of nature (Souto de Moura apud Güell, 1998, p. 137).

The house in Moledo (1991-1998) provides valuable insight into this issue:

Souto de Moura found there a landscape molded by terraces with 1.5 meters. The first action was to prepare the land with 3 meters levels (Souto de Moura, 2005, p 10). Proving the design rigor, when we approach the house, we believe that it was not the house that changed the whole landscape. Nevertheless, he built a completely new reality: a simulation of a previous state (according to the typical stone walls of northern Portugal) to which the house seems to be shaped for. Authenticity results there like in Santa Maria do Bouro, where the height of the different floors was changed to integrate the new installations. The stone arches' geometry was then changed, decreasing their height, which is not noticeable.

A similar option took place at Museu Grão Vasco in Viseu (2001-2003). Souto de Moura defined a non-existent truth: he sought the true “vocation” of the building. He designed a new alignment for all the arches between the exhibition rooms, according to a geometric and compositional accuracy that the building had never had. Furthermore, the width of the stairs between the ground floor and the first level, which was increased, forced him to move the wall facing the courtyard: it was rebuilt with the exact same windows, a few meters away from the original position. Apparently, nothing has changed. As it can be seen, there is a seek for silence as a design strategy: no signs of the changes he drew up for the Museum can be seen.

In the Braga Municipal Stadium (2000-2003), the project was firmly aligned with contemporaneity as the quarry was already a landscape transformed by man. In conceptual terms, this is a key factor. The stadium merges with the quarry as if the concrete was a mirror of the stone itself. The natural line of water was integrated into the design process. The

topography was redesigned. Naturalness was sought with an overall but sensitive and skillful design.

On a different scale, the environment of the outdoor spaces in the Courtyard Houses in Matosinhos (1993-1999), as well as in the Dance and Music School in Braga (1980-2010), and also in the Conversion of Bernardas Convent (2006-2013) evoke that sort of naturalness. These examples also show a decision to reduce the tension between nature and architecture, merging them both in a singular architectural atmosphere: in fact, the greenery is a device used to work with architecture in a complete environment.

The stadium is the construction of a new landscape, which has a natural appearance. This ought to be a contradiction, given the violence the transformations pose to the mountain: as it has been said, everything seems natural.

I have discovered that the naturalness of things is the hardest goal to achieve (Souto de Moura apud Castro, 2005b, p. 18).

In the course of this argument, it is time to go back

to the first years of Souto de Moura's carrier. The adoption of the neoplasticist codes took place for aesthetic reasons. An aesthetics based on the minimum elements seemed to him the proper answer amid the uncertainties found in the post-modern debate (Souto de Moura apud Grande, 2009).

When I faced with the debate and the adoption of post-modernism, I continued using that sort of language almost for pleasure, without any ideological meaning or desire for social construction of the modern project. I preferred a more visual and hence post-modern option. João Luís Carrilho da Graça, once quoted me saying that he was a post-modern, just like me. And I do acknowledge the fact that like him, I regard language as a grammar of everyday life (Souto de Moura apud Grande 2009, p. 9).

When he recalls the 200-meter walls he drew in that context, he justifies them with a romantic or heroic approach that he now considers ridiculous (Souto de Moura apud Cortés, 2015, p. 259). To justify part of the changes in his carrier, when he felt that the models he worked with could be exhausted and tried a more experimental phase, Álvaro Siza was called as a reference.

He is an infallible personality in his answers. He has a grammar that he refreshes on the basis of each situation, and that means being very contemporary (Souto de Moura apud Grande, 2009, p. 7)

Hence, a stabilized language does not concern him any longer. He is much more focused on the

method. It can be said that such kind of method should face each situation according to specific concerns, issues, and goals. "There are no universal languages, just as there are no universal places..." (Souto de Moura apud Grande, 2009, p. 19). The main theme that interests him the most is based on a simple concept: *adaptation*.

This is one my favorite words, because architecture is a problem of adaptation (Souto de Moura apud Grande, 2009, p. 19).

The superiority of time over the place, that is, the generalization of a type of architecture that, most of all, pays total attention to the spirit of the time, with less sensitivity to the particularities of the place, like the late modern architecture has done (Portuguesi, 1980), has no place in the work of Souto de Moura.

Though the attention to geographical contexts seems to be a pragmatic response, his architecture results from an intelligent and accurate ability to read a place. The syntheses he achieves, more or less authentic (even when the materials are imported and do not have local origin), show an architect who, as he says, seeks adequacy and accuracy.

The adoption of forms by analogy – an *objet trouvé* –, is not contradictory to what has been said. It has to do with the adoption of languages for visual reasons – it is true – but it does not forget the idea of adequacy focusing on the figurative concept of atmosphere. For instance, the restaurants and other facilities for Matosinhos' waterfront (1995-2020), or even The EDP Headquarters in Lisbon (1998), in the north bank of Tagus river, are all projects which use the images of containers, cranes, or fuel tanks reproducing the maritime universe. Similarly, in the project for the Campus in the Middle East (2010-...), Souto de Moura used the image of aircraft carriers since he was not interested in touching the sand:

I was interested in the contrast between nature and artefact. I wanted to separate things: the desert is like a sea (Souto de Moura apud Morales, p. 17).

Summing up, the appearance is not a pictorial image that reproduces an exterior prototype, but an effective image that dissolves the real, to use Paolo Portuguesi's words (Portuguesi, 1985, p. 172). This argument leads this text to a central feature in this architect's work. The paradox is a major characteristic in Souto de Moura. He knows reality is based on polysemy. As such, it never allows simple interpretations. It is ambivalent, and so is architecture. Souto de Moura seeks proper solutions through an intense dialogue with reality. His architecture is complex, also ambivalent, and it is in the multiple strata of his own reality, sometimes contradictory, his architecture shows itself naturally.

3 CONCLUSION

The conversion of the Braga Municipal Market (1980-1984) into a Dance and Music School (1996-2010) could be the synthesis of these pages. It was not a refurbishment nor a restoration. Souto de Moura felt completely free from his previous work and conceived a completely new building using the pre-existing one. It provided him old materials to a new design:

We suggested the removal of the existing roof and its replacement with a garden, a street and the construction of the cultural program by reusing the remaining covered area.

The area sheltered by the former roof became a garden in which a few of the pillars supporting the demolished slab were saved as a testimony (Souto de Moura, 2005, p. 51).

In its very essence, the new project defined both the new architectural elements to be built and chose which ones, among the former ones, would be demolished or, instead, take part in the new building. The pillars that supported the roof remain on the site as ruins. The stairs that originally connected the ground floor to the upper floor were also partially kept in their place, like ruins too – they no longer lead anywhere since the new building has only one level above the ground. Hence, as parts of the project, pillars and stairs define a kind of evocation: their demolition was also designed.

The resulting atmosphere is complex. The different times and spaces (old and new) coincide on the site, and they are reconciled in the *in-between realm* (Van Eyck, 1962, p. 54). Reciprocity (Van Eyck, 1962) is the key to understand that process.

The conversion of the Braga Municipal Market could be seen as a metonymy of Souto de Moura's work: all the architecture of Souto de Moura reconciles polarities: it defines the place where those polarities can interact between them, and with Aldo Van Eyck's *twin phenomena* (Van Eyck, 1962), which they really are. Souto de Moura's built and unbuilt work is about those important architectural features whose meaning was systematized in Aldo van Eyck's theoretical work. Additionally, Souto de Moura adds them to the complex variable of time or, in other words, he makes a synthesis between what belongs to all the times and what belongs to the present (Dal Co, 2019, p. 484).

In Souto de Moura, diversity and complexity surpass the experience of creation: they expand their own meanings with the experience of space.

For Francesco Dal Co, Souto de Moura's sketches are both the expression of a free intuitive process and the expression of memory

(2019, p. 482). As such, one may say that they are not so different from Souto de Moura's design: they anticipate architecture itself, unifying space and time, which means complexity and polysemy.

It is always a great thing to discover similarity in different ways and to recognize real differences as variations of the same – as great as it is to experience a similar kind of occasion repeated in different places, and different kinds of occasions occurring in the same place. (This can happen anywhere, of course, in spite of architecture, but it can also happen because of architecture). (Van Eyck, 1962, p. 93)

Complexity and polysemy also mean the opportunity for identity, human identity. In other words, the closeness someone feels with a space within its atmosphere despite architecture or because of architecture.

Poetry is what first brings man into earth, making him belong to it, and thus brings him into dwelling (Heidegger apud Norberg-Schulz, 1980, p. 23).

Translating Heidegger's words into a deeper meaning to architecture, Christian Norberg-Schulz says:

Architecture belongs to poetry, and its purpose is to help man to dwell. [...] Architecture comes into being when a 'total environment is made visible' (Norberg-Schulz, 1980, p. 23).

As a direct consequence of Norberg-Schulz's statement, one may say that poetry, dwelling, and architecture are unified under a total environment. As such, they belong to the emotional field.

In few words, Christian Norberg-Schulz explains Souto de Moura's work: it is all about poetry.

We do have art so as not to die from the truth. Maybe for that reason, despite everything, we keep doing architecture⁶ (Souto de Moura, 2019, p. 503).

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6. Author's free translation: "Temos a arte para não morrer da verdade [Friedrich Nietzsche quoted by Souto de Moura]. "Talvez seja por isso que, apesar de tudo, ainda continuamos a ser arquitetos" (Souto de Moura, 2019, p. 503). It is important to translate Eduardo Souto de

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Moura's lively and vibrant words. They give full meaning to this chapter conclusion.

Complexity and contradiction in Eduardo Souto de Moura's architecture

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The enigmatic and poetic dynamic of penumbra: Creating and experimenting among reason, emotion, and imagination

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ABSTRACT: The penumbra inhabits the poetic and shadowy limit region and is revealed in that *floating sign* between the known and the arcane referred to by Trías. It is in this interstitial, enigmatic and inspiring region where we find all the poetic and seductive condition of the *imprecise thickness of the penumbra*, patent in the works and ambits/contexts that we refer to: the penumbra's metaphor in Pollock's painting, the conceptual penumbra in Libeskind's Migromegas, the *poetic imprecision of the penumbra* described by Tanizaki in traditional Japanese architecture and Zumpthor's ThermalBaths, the drawing's *place of dreams and shadows* by Seguí, the poetic journey to the place of night in Sambrano's poetry, the *uncertain area of penumbra* between the knowledge and the unconceivable referred to by Morin or the experience of the limit of the *creative or passionate possession* described by Trías. This in-between place with undefined limits is the *poetic place of penumbra* that is common to all of them in their artistic, architectural, or philosophic expression. It is a creative *in-between space that is liable to be generated/manifested and experienced/lived through the mind, emotions, and body in both art and architecture*. There where, in a permanent state of recreation, spaces become spatialities, identity gives way to relationality and autonomy to interstitiality. It is the enigmatic and poetic dynamic of penumbra that inhabits that *floating ambit* between certainty-uncertainty, contemplation-imagination, ontological-topological.

Keywords: Penumbra, In-between space, Poetic, Artistic, Architectural

1 THE PENUMBRA AS A BORDERLINE INTERSTITIAL PLACE

The penumbra, literally and metaphorically, evokes an *in-between condition* of coexistence, blending, imprecision, ambiguity, or ambivalence of “being or existing between” that is typical of the in-between *figural*¹/imprecise ambit or space. According to Deleuze, the *figural* realm lies somewhere between the figurative and abstract realms, where the figurative (associated with the illustrative, representational, incarnate, and narrative) aspects are blurred to give way to an *intermediate/in-between moment or ambit* that is neither figurative nor abstract, but which entails/affects both at the same time. The penumbra is thus implicit in this condition, *intermediate* and *figural*, and in the following concepts: in-between,

intermediate, blending, overlapping, ambivalence, multivalence, multiplicity, flotation, imprecision, instability, dynamism, interrelationship, connection, conflict, tension, interstitial, borderline and limit.

We refer to the penumbra as an “imprecise dynamic space” that is poetic (creative, evocative and enigmatic) between darkness and light, between doubt and certainty, between what the mind can perceive and imagine and what emotion can appreciate, in so far as polarities are interwoven ambiguously or ambivalently, with no defined limits or consistency. It is metaphorically and literally an *in-between space*, which in both art and architecture is liable to be generated/manifested and experienced/lived through the mind, emotions, and the body. Specifically, we are talking about penumbra as matter, form, a spatial quality, compositional order or concept that can be associated with the subliminal, the non-evident, ambiguity, the mystical, that which is not completely revealed or defined, the imprecise, that which is a “matrix” insofar as it is an open, orienting system juxtaposed against the defined, finished or closed system. It is a space or ambit that appeals to an interstitial region that is more or less superimposed, tensioned, complex, blurry, or vague. A floating and imprecise

1. The term “figural” (that which is imprecise, floating, undefined, “open”, which is neither figure nor background) was used for the first time by J. F. Lyotard as an adjective meaning the opposite of “figurative”. Deleuze takes the term “figural” from Lyotard and also juxtaposes it to “figurative,” and also to “illustrative,” “narrative,” “representative” and “figuration.”

region (condition, place, or geography) that is not completely revealed between the light of evidence (or awareness) and the mystical darkness. Rather it remains in that limbo that is just as veiled as it is revealed, in that subtle, unstable, and ambiguous atmospheric tension, in that permanent state of transformation, evocation, and empathy. It is a *borderline place* with no precise limits, dialogic and non-dialogic, where the spaces become spatialities, identity gives way to relationality and autonomy to inbetweenness. It is a *limit-place* between shadow-light, figure-background, identity-difference, being-becoming, the said-unsaid, reason-emotion. More specifically, in the field of art, architecture, and general thought, it is a limit-place insofar as it is a *floating ambit* or *imprecise interstitial spatiality*, as suggested by Deleuze's *zone of indiscernibility*, referring to the imprecise, that which cannot be decided, precise or determined (the "undecidable," as Eisenman puts it); Kipnis's *phenomenological effect of the translucent*; Eisenman's *in-between*; the three transparencies of Toyo Ito –*translucid* or *fluid transparency*, *erotic transparency* and *opaque transparency*–; Buci-Glucksmann's *image-flow*; Sloterdijk's *foam* and *suspension-in-between*; the *non-objective space* referred to by José Gil; or the *grey point* by Klee. These are all concepts that in some way tell us about the current cultural, artistic, and architectural paradigm. These concepts allude to *in-between* or *interstitial* qualities, states, or conditions with certain tension or dynamism; they allude to diffuse, ambiguous, ambivalent, or multivalent conditions with varying degrees of explicitness or complexity. As Sloterdijk sustains, these have rarely been considered by Western philosophical tradition, however, nowadays, they have emerged as metaphors of the current cultural paradigm of complexity, where diversity, fluidity, dissolution, displacement, and uncertainty take on increasingly greater prominence.

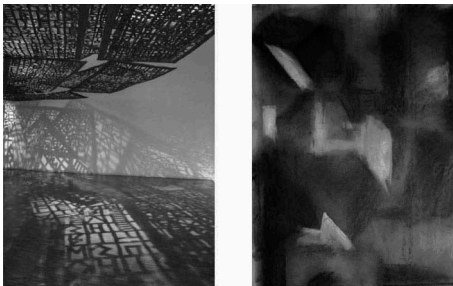


Figure 1. Left: Untitled (Passage II), Museo Nacional Centro de Arte Reina Sofia, Madrid, 2002, Cristina Iglesias; right: student's drawing of a classroom in the dark, ETSAM; (author's pictures).

2 THE PENUMBRA AND ITS IMPRECISE THICKNESS

In the imprecise thickness of the penumbra emerges an enigmatic and poetic spatial dynamic that is evocative, creative, and seductive. Pedro Burgaleta, architect and professor of architectural drawing, once observed that everything remains as a backdrop from which figures emerge that are later submerged. The penumbra, physically and metaphorically, is revealed or perceived as a spatial condition in-between, interstitial and figural (floating and indefinite, neither figure nor background). This is due simply to its mixed, heterogeneous, imprecise, and shadowy nature which, residing between light and dark, generates at the same time an insecure and seductive environment that dismantles any convention of a *reified* vision, as Javier Seguí expresses it in the text *El lugar del atardecer* (Seguí, 2003, p. 7). He explains that drawing the dark, in the darkness, is an uncertain activity, always tentative and uncontrollable, that dismantles the conventions of the *reified* vision and makes it possible to assist the flow of pure configurative action (the expression, he clarifies), guided by the spontaneous mobility of the body.

In the penumbra, nothing is fixed, established, or recognized; everything reverberates in a flow of amazing anxiety and in a silence that is not absolute, and it does so among footprints and reflections in the continuous mutation of time. The penumbra registers a field of flows and unveilings between dark and light, generating images or possible spatialities beyond the obvious and configured, and beyond where the mind, emotion or imagination can perceive or be expressed: "I chose the darkness as part; I wanted to do like the darkness that gives clarity to the light, which causes it to succumb, to fade away."² We can speak about the penumbra literally, metaphorically, or conceptually. In other words, we can refer to a physical penumbra (a moderately illuminated environment), a metaphorical penumbra (evocation), or a conceptual penumbra (an open concept or vague idea that is not fully defined). They are all *in-between figural spaces*.

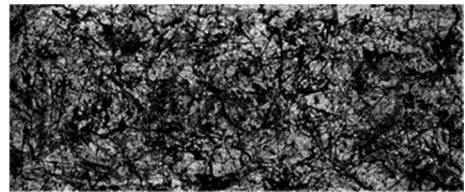


Figure 2. Lucifer, 1947, Jackson Pollock (adapted picture from original photo: © Ed Bierman).

2. Maria Sambrano. Free translation from the text: "Escogí la oscuridad como parte, quise hacer como la tiniebla que da a la luz la claridad que la hace sucumbir, que la desvanecese." (Zambrano, 2004).

2.1 The metaphor of the Penumbra in Pollock

We believe that in the artistic field, Pollock's painting is the manifestation of the current cultural paradigm of complexity par excellence and a metaphor for penumbra. Pollock's painting, from which we can take *Lucifer* as a paradigmatic example, is an expressionistic painting that is captured in a sort of systems on top of systems, networks, connections, and links between lines, points, and irregular colored strands, which allude in some way to the metaphor of the penumbra as an *in-between figural/imprecise space*, as it is as abstract as it is concrete, as formalized as it is informal, as dense and rough as it is fragile or delicate, and as revealing as it is mysterious or hidden. However, we believe that Pollock's painting also alludes to the metaphor of foam, which according to Sloterdijk, is based on the typical aspects of contemporary society, such as multifocality, heterarchy, interactiveness, fragility/lightness/ephemerality/speed, the "air in liquid" or "air in solid" (Sloterdijk, 2006), something that in the case of Pollock's canvases, would be more like "air between the lines."

Pollock's painting seems to have had premonitory echoes of the reality of our current sociocultural paradigm, from the interconnected world of computerization (the web); from the idea of complexity, system, and multiple interactions between what is real and what is virtual; from the scientific discoveries of the 20th century; from mathematics, quantum physics, astrophysics, medicine, etc. Alternatively, it seems to have sensed the intrinsic relationship and proximity between the polarities studied on a micro-level by quantum physics (the microbiotic components of cells, such as atoms, electrons, quarks, etc.) and the polarities studied on a macro level by astrophysics (the perception we have of the starry sky, the cosmos, etc.), alluding to important concepts of current scientific thought, such as the wave-particle duality of electrons, intergalactic space, the neuronal system, morphogenetic fields, and Pischinger's extracellular matrix, among many others. These concepts are associated with the concept of *in-between*, interstitial, intermediate, borderline, ambivalent space, and in a way with imprecise limits.

We can say that Pollock's painting, with its exploration of *dripping*³ and the boom of *action painting*, is a painting as dynamic as it is arrested (biological, essential, inconsistent), which owes to the idea of "biological matrices" or "fractal systems," and reveals its interactive and complex relational function of many different connections and "asignifying ruptures" (in the Deleuzian sense). This idea is evident in the idolized *rhizome* of Deleuze

and Guattari (Deleuze, Guattari, 1997) and is clearly described by Navarro Baldeweg (Baldeweg, 2002):

The return to pure dance in Pollock's painting, in the dance of dripping, in which the artist leaves the mark of his movement on the canvas on the ground, forgetting all matters that painting has previously proposed [...] the return to primitive art, the art of children, [...] gives painting back a *raison d'être* that links it to a certain essentiality of humanity, a certain return to the origins. He thinks that it is something that the creator is continuously searching for: the most essential resources, those most intimately connected to his own biological nature.⁴

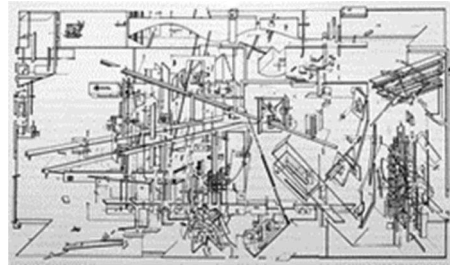


Figure 3. Micromegas, 1979, Daniel Libeskind: Above: The Garden, down: Leakage (author's pictures).

3. Dripping technique begun by Max Ernst.

4. Free translation from the text: "La vuelta al baile puro en la pintura de Pollock, en la danza de dripping, en la que el artista deja la huella de su movimiento sobre la tela en el suelo, olvidando todas las cuestiones que la pintura se ha planteado previamente (...) la vuelta al arte primitivo, al arte de los niños, (...) devuelve a la pintura una razón de ser que la vincula a cierta esencialidad del hombre, a cierta vuelta a los orígenes. Creo que eso es algo que el creador está buscando continuamente: los recursos más esenciales, más íntimamente unidos a su propia naturaleza biológica." (Baldeweg, 2002, p. 74-75).

In effect, it is a painting of footprints and rhizomatic matrices, where the line becomes a smudge and a smudge a line. It is an anti-perspective painting of a primitive or essential tenor expressed, literally, in an interlinked relationship between “being” and “becoming,” the infinite depths and the surface, simplicity, and complexity, transparency and opacity, light and dark, order, chaos, and chance. It is an imagined and emotive painting, experienced and produced in that creative/poetic instant of a present and in that enigmatic dynamics of the creative action between reason, unreason, and emotions; there where everything is captured or reflected in those superimposed and mixed matrices and hues of that imprecise thickness of penumbra.

2.2 The conceptual Penumbra in Libeskind

A good example of conceptual penumbra are Libeskind's *Micromegas* drawings (1981), which express through lines an endless number of superimposed architectural spatialities. As the very name suggests, there are paradoxically multiple “micro”- and at the same time “mega”-drawings of pseudo-architectural or pseudo-urban forms and spatialities composed under multiple superimpositions, interceptions, and scales, in the tangle of which it becomes impossible to perceive any drawn spatiality clearly. However, they are very evocative drawings that, between figures and backgrounds, induce the observer's imagination to immerse itself in their inconclusive, open, or imprecise configurations, to conquer figures, configurations, or specific spatialities. In terms of conceptual penumbra, these linear micromegas from Libeskind function as a complex matrix with infinite formal and spatial possibilities which, despite their difficult decipherment, promote the participation or reaction from the observers, activating their memory, imagination, and emotion as they observe and perceive them. They are matrix-spaces (receptive, open, inconclusive), capable of generating other possibilities of form or space between the mind, the capacity to imagine and emotions (in a wide variety), and the drawing since after the initial recognition, the observer begins to imagine or mentally construct other spaces. In the end, they are merely indicative/indexical (floating) figures-backgrounds related to one another, footprints of possible architectural or urban places. They are perhaps an announcement of the hypertextual interstitial spatialities typical of contemporary culture, which current architecture has increasingly studied and experimented with.



Figure 4. Left: Thermal baths, Vals, Switzerland, 1996, Peter Zumthor; right: Tea ceremony in Japanese Tea House, Japan (adapted pictures from original photos: left: ©Mb, right: ©Preconscious Eye).

2.3 The poetic imprecision of the Penumbra in architecture

In his marvelous book *In Praise of Shadows*, Tanizaki analyzes poetics and the importance of shadow in Japanese culture as edifying beauty through the subtle combinations of penumbra in its traditional architecture. This delicious tale of literal penumbra refers us to a poetics of shadow that, in its immanence and inspiring ambiguity, appeals to an architecture where penumbra is material (poetic) and space, and where those who experience it, literally or imaginatively, are moved and inspired:

(...) we Asians create beauty by causing shadows to be born in places that by themselves are insignificant. (...) I think that beauty is not a substance in itself, rather just a shadow drawing, a game of light and dark produced by the juxtaposition of different substances.⁵

The “poetic imprecision of the penumbra,” according to Tanizaki, in traditional Japanese architecture is an essential quality, something that is still not sufficiently valued in Western architecture:

(...) the beauty of a Japanese room, produced solely by the play on the degree of opacity of the shadow, needs no accessory. Westerners who see it are surprised by this nudity and believe that they are simply before some bare gray walls, a totally legitimate interpretation from their point of view, but which shows that they have not understood the enigma of the shadow in the least.⁶

5. Free translation from the text: “(...) nosotros los orientales creamos belleza haciendo nacer sombras en lugares que en sí mismos son insignificantes. (...) creo que lo bello no es una sustancia en sí sino tan solo un dibujo de sombras, un juego de claroscuro producido por la yuxtaposición de diferentes sustancias.” (Tanizaki, 1997, p. 69)

6. Free translation from the text: “(...) la belleza de una habitación japonesa, producida únicamente por un juego sobre el grado de opacidad de la sombra, no necesita

For Tanizaki, one of the imperfections of Western culture is the overabundance of light in spaces, which makes it impossible to experience that “thickness of silence,” which is both serene and disconcerting at the same time:

(...) even knowing that they are just some insignificant shadows, we experience the sensation that the air in those places encapsulates a thickness of silence, that in that darkness reigns an eternally unalterable serenity. (...) a tranquility somewhat disconcerting that shadows generate when they have this quality.⁷

It is a subtle and enigmatic “thickness of silence,” born from that “poetic imprecision of penumbra,” of that emptiness–fullness loaded with serene and disconcerting content and memory that moves and inspires us. In this dynamic or interrelationship between subject (mind, emotions, and imagination) and space, the poetic place of penumbra is generated and experienced, an enigmatic and evocative “poetic reality” that María Zambrano succinctly expresses: “The poetic reality is not what is there, rather what is not: it encompasses what is and what is not.”⁸

According to Navarro Baldeweg, in his *Invitación a la arquitectura* (Baldeweg, 2002), and something that is also shared by Tanizaki, in architecture, there is a culture of shadows and a culture of light. Compared with traditional Japanese architecture, which is built on the praise of that “imprecise thickness of penumbra” that fills the emptiness –loaded with emotions, sentiments, and imaginations–, the architecture of our Western culture, in general, with rare exceptions, has always intended to be an architecture of light, both literally and metaphorically. One of those exceptions is a large part of the work by Peter Zumthor. Both light and shadow are brilliant and poetically exalted in his work, which is evident in the literal penumbra of his Thermal Baths in Vals (1996). Western architecture values vivacity and clarity of the light that enters the spaces in its explicitness. It is an architecture that, in general, seeks order

(harmonious or not), the explicit and well-defined compositional structure, the purified form (although one that is also sometimes complex), the coherence, and the non-ambiguity, as expressed by Tanizaki:

[...] it is evident that our own imagination moves among black lacquer shadows, while Westerners attribute the clarity of glass even to their ghosts. The colors we like for everyday objects are stratifications of shadows: the colors they prefer condense the sun’s rays within themselves. We appreciate the patina on silver and copper; they consider it dirty and unhygienic and are not happy until the metal shines from being polished. [...] we sink with delight into the shadows and find a very peculiar beauty in them.⁹

Another important example of *figural in-between space* in architecture, as a place that manifests that poetic imprecision of penumbra, is the *engawa*, the transition space with imprecise limits in traditional Japanese houses. As Tanizaki describes it, besides the important symbolic quality of the transition space between the exterior and the interior, the *engawa* materializes an equally important functional quality of protecting the interior from the rain, reducing the light that penetrates inside and making it indirect, resulting in an intimate space that is both mysterious and enveloping. It is an ambiguous space with poetic, symbolic, and functional qualities defined by sun and rain movements.

3 THE POETIC PLACE OF PENUMBRA

The place of penumbra is the poetic place of uncertainty and shadows that inhabits that imprecise in-between space, or one that is not completely defined, between light and dark, subtlety and density, inspiration and confrontation, and between he who creates or he who experiments and the region or environment that is experienced, literally, metaphorically or conceptually. It is a *figural* (imprecise, undetermined, borderline, interstitial, receptive, and at the same time, projective) space of atmospheres of envelopment and awe, of unexplored worlds yet to be conquered (or not), that clamor for contemplation, activate emotions

ninguno accesorio. Al occidental que lo ve le sorprende esa desnudez y cree estar tan solo ante unos muros grises y desprovistos de cualquier ornato, interpretación totalmente legítima desde su punto de vista, pero que demuestra que no ha captado en absoluto el enigma de la sombra.” (Tanizaki, 1997, p. 45)

7. Free translation from the text: “(...) aun sabiendo que solo son sombras insignificantes, experimentamos el sentimiento de que el aire en esos lugares encierra una espesura de silencio, que en esa oscuridad reina una serenidad eternamente inalterable. (...) una tranquilidad algo inquietante que genera la sombra cuando posee esta cualidad.” (Tanizaki, 1997, p. 49).

8. Free translation from the text: “La realidad poética no es lo que hay, sino lo que no es: abarca lo que es y lo que no es.” (Seguí, 2003, p. 10).

9. Free translation from the text: “(...) resulta evidente que nuestra propia imaginación se mueve entre tinieblas negras de laca, mientras que los occidentales atribuyen incluso a sus espectros la limpidez del cristal. Los colores que a nosotros nos gustan para los objetos de uso diario son estratificaciones de sombra: los colores que ellos prefieren condensan en sí todos los rayos del sol. Nosotros apreciamos la pátina sobre la plata y el cobre; ellos la consideran sucia y antihigiénica, y no están contentos hasta que el metal brilla a fuerza de frotarlo. (...) nos hundimos con deleite en las tinieblas y les encontramos una belleza muy particular.” (Tanizaki, 1997, p. 71-72)

and the imagination and incite the interaction and poetic/creative activity. The poetic place of penumbra is the imprecise place of dreams and of that imprecise thickness of the shadows, as Javier Seguí reveals in “El lugar del atardecer”, in his book *Oscuridad y sombra: experiencias en dibujo y arquitectura* (Seguí, 2003):

Then the place of the shadows appears. A way of proceeding, of orienting oneself, of doing. Deliberate, exploring the awe, the awesome, the erasure, the rectification. It is the experience of substances, the loss of contours, the appearance of backgrounds and contexts. Of the aerial and dynamic imagination, which is free and shapeless. In the place of shadows (Leonardo’s twilight), the imagination is rekindled, confronted with complete works that resist being finished. It is a place of dreams, of tiredness, where the glance wavers and is transformed. Things are no longer observed, and one learns to see the look.¹⁰

It is in that dynamic and enigmatic poetics that the imprecise place of penumbra is installed, which at times brings back awe to us in a poetic trip to the place of the night. María Sambrano expresses this in the realm of poetry:

Poetry [...] has descended again and again into the depths of hell in order to reappear, loaded with history and even infernal histories, daring to remain there for a certain time and even having reached the decision to set up residence in those unquenchable underworlds of the human soul; of the soul, she says. But always, no matter how deep the descent has been and how long it has been detained, the poetic journey was a round-trip, and it brought back the word along with it.¹¹

10. Free translation from the text: “Luego aparece el lugar de las tinieblas. Un modo de proceder, de situarse, de hacer. Pausado, explorando el asombro, lo asombroso, el borrado, la rectificación. Es la experiencia de las sustancias, de la pérdida de contornos, de la aparición de los fondos, de los contextos. De la imaginación aérea y dinámica, libre, informe. En el lugar de las sombras (el atardecer de Leonardo), la imaginación se aviva, frente a las obras completas que se resisten al acabado. Lugar del ensueño, del cansancio, donde el mirar vacila y se transforma. Ya no se miran las cosas, y se aprende a ver la mirada.” (Seguí, 2003, p. 1)

11. Free translation from the text: “La poesía (...) ha descendido una y otra vez a los infiernos para reaparecer cargada de historia y aun de historias infernales, atreviéndose a permanecer allí por un cierto tiempo y aun habiendo llegado a la decisión de establecer su residencia en esos inferos inagotables de alma humana; del alma. Mas siempre, por muy hondo que haya llegado el descenso y por muy larga que haya sido la detención, el viaje poético era de ida y vuelta, y de él se traía la palabra.” (Seguí, 2003, p. 11).

As Edgar Morin explains in his *El Metodo III* (Morin, 1999), current thought (“complex thought”) has recognized an uncertain zone between clear, or logically defined, knowledge and the inconceivable. This is an area of penumbra where decisive, ultimate proof is given of the limits and the possibilities of knowledge, a half-hidden borderline area of transition that resides in that tensioned, dynamic, and enigmatic in-between space-time, between the phenomenon and noumenon that for Kant was an unfathomable pit: “an area of penumbra in which through the night and the fog, knowledge advances towards a *veiled real*.”¹² A real that exceeds the thinkable, reason, or the merely rational, as d’Espagnat argues:

[...] the physical sciences detect and approach an inconceivable Real, beyond, and closer to the phenomena (something Kant confirms), but detectable and approachable from the world of the phenomena that join them and separate them at the same time (something that Kant discredits).¹³

Is it a veiled and mysterious reality separated from the known world through an *imprecise thickness*, an *in-between and uncertain stripe* of penumbra? A borderline place of tension and evocation, encounters and divergences among reason, emotion and imagination, image, the imaginary and the real? ... Morin frames it like this:

Does the detectable, known, and knowable real constitute the agitated foam of a deep world, of a strip of interferences between different Worlds, a poorly dimensioned slice of a polydimensional world, a reified appearance of an unsubstantial world, a shadow of reality?¹⁴

For Eugenio Triás, both the philosophical experience and the artistic and religious ones are borderline experiences once the “passionate subject carries them out.” This is the subject who can withstand and sustain the experience of the limit of the “creative possession” or “passionate possession,” and that

12. Edgar Morin. Free translation from the text: “una zona de penumbra en la que, a través de la noche y la niebla, el conocimiento avanza hacia un *real velado*” (Morin, 1999, p. 234).

13. Free translation from the text: “(...) las ciencias físicas detectan y abordan un Real inconcebible, más allá y más acá de los fenómenos (cosa que Kant confirma), pero detectable y abordable a partir del mundo de los fenómenos que les une y separa a la vez (cosa que Kant infirma).” (Morin, 1999, p. 234).

14. Free translation from the text: “Lo real detectable, conocido y cognoscible ¿constituye la espuma agitada de un mundo profundo, de una franja de interferencias entre diversos Mundos, una rebanada pobremente dimensionada, de un mundo polidimensional, una apariencia reificada de un mundo insustancial, una sombra de la realidad?” (Morin, 1999, p. 235).

gives it back its *borderline* condition, the one to which human beings are called. The erotic or passionate experience of the subject occurs, according to Trias, in a *space-light and an instant-eternity*, and like the experience of magic thought, it leads to the dissolution of one's own identity and the system of ideas and beliefs with which one lives daily, thus reconsidering the notions of subject and object. This experience of creative possession –borderline and intense– given by the *poietic eros*, as Trias contends, is what leads to artistic expression or philosophical writing (Martínez-Pulet, 2003, p.48-51). For Trias, all works of art, all radical philosophical proposals, and all religions (in other words, all “floating signs” - referring to signs that are on a floating-point or line, on the limit between the known and the arcane) are immersed in the sign of opposition-articulation (/) or have an ontological limit condition, i.e., they are constituted as a neighboring, borderline, intermediate realm of transition. Trias posits that the “floating sign” is like the “wild” matrix of the symbolic logos, which coincides with the exclamatory experience of magical, religious, and philosophical thought, and with the poetic ambit of the arts, as they productively inhabit that limit (Trias, 1991). In the article “Estela del límite: arte y filosofía” (AAVV, 2003, p.224), Marta Llorente speaks of “the shady region of the limit,” which has been tragically conquered by Trias, and that is constituted as the border geography, full of symbolic abstractions, tangencies, articulations, hinges, etc.

The ambit, space, or place of penumbra (interstitial, imprecise, and poetic) inhabits that *shadowy region of the limit* and is revealed in that *floating sign*. In this shadowy interstitial and borderline territory, imprecise and defiant, but inspiring where, ambivalently, all enigmatic and poetic condition of the *imprecise thickness of the penumbra* is found, which is patent in the aforementioned works. This region or in-between place of imprecise limits is the *place-limit* common to all of them in their artistic and/or architectural expression -the *poetic place of penumbra*-, although its own difference distinguishes each one. It is a place that is simultaneously dynamic and passive, a place that is captured in that threshold between the objective, non-objective and subjective, between the configuration and emptiness, between presence and absence, between language, silence, and the ineffable. A place in which both the form and the emptiness are extolled, and at the same time, the presence and absence of luminosity or clarity. A place in which figures and backgrounds are

valued, as well as the tension generated between them. It is a *figural place-limit* that is imprecise and poetic, in which we can experience that enigmatic and more or less complex field of forces that has been constituted between a drawing –which shatters the emptiness or silence– and an erasure -that shatters the configuration. A seductive and subtly dynamic place in a permanent state of recreation shows us that nothing is permanently finished. A place made of moments, dynamics, and spatialities, generated and experienced in creativity, sensitivity, perception, and perplexity, among reason, emotion, and imagination. It is the poetic place of the *imprecise thickness of the penumbra* that productively inhabits that *floating* ambit of undefined limits between the condition of certainty and uncertainty, between the contemplative experience and the imaginative experience, between the ontological dimension and the topological dimension, here where the experience of the limit of the *creative possession* of the *poietic eros* referred to by Trias is activated and revealed. In awe, it gives way to an artistic expression, architectural proposal, or philosophical writing.

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From sculpture to Casa da Fuseta, Algarve

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ABSTRACT: This paper discusses the creative process of architect Miguel Arruda, starting from a sculpture held in 1968 until its architectural expansion as Inhabitable Sculpture and later architectural design as Casa da Fuseta (Fuseta House) Algarve. A qualitative and empirical methodology based on interviews and bibliography was used to proceed to a critical analysis of the process of architectural metamorphosis and articulation with the pre-existing house. The transformations implemented to adapt to the physical location and the intended program are also identified. It is understood that this comprehensive perspective, immanent to Miguel Arruda's work and its artistic transversality, is not restricted to merely technical solutions in response to programmatic questions and inherent to the architect's work, suggesting that this knowledge and creative process can be conveyed to new generations of architects as a recognizable and inspiring legacy.

Keywords: Architecture, Design, Housing, Metamorphosis

1 INTRODUCTION

The creative artwork “cannot be governed by rules established or judged by a deterministic analysis” (Lyotard, 1999, p. 26 apud Leite, 2020, p. 879) or for technical and constructive reasons. It is analyzed in this paper through the processes that were at the origin of a dwelling. Aesthetics is the seed of imagination in the artwork due to the ability to induce several readings, leaving the observer with the imaginative task of interpreting them according to her sensitivity and relating them to minor aspects that, at first glance, go unnoticed.

Thus, the conception of the manageable object (sculpture) and the metamorphosis to the penetrable object (architecture) are explored, seeking to identify the stages of transformation according to the programmatic intentions and the connection with the pre-existing housing. The temporal gap (40 years) between anthropomorphic sculpture and its architectural design lacks a theoretical framework, which will be the object of reflection through the conceptual contamination of several authors and similar works that mirror this concept.

The philosophy linked to an innovative concept of dwelling, through a work by architect Miguel Arruda, located in Fuseta, Algarve, was also

analyzed. The architectural design does not constitute a current typological practice but represents a remarkable step in his artistic journey where the phenomenology of art and the presence of beauty and light materialize, in the poetics of the place, as expressed by Chrétien (1998) “the appearance of the beautiful does not occupy a place, it gives way.”

It is also intended to address the constant questions arising from Miguel Arruda's infinite dissatisfaction, which emanate from a traveling state of spirit and permanent intellectual updating, but which he demystifies using a sentence by Brancusi (1925), who influenced and accompanied him to the throughout his career: “*Les choses ne sont pas difficiles à faire, ce qui est difficile c'est de nous mettre en état de les faire.*”

This introspective task tried to undertake, with no intention of classifying or culturally tying something intangible – creativity.

This chapter consists of five sections. After the introduction, Section 2 presents the materials and methods. Section 3 describes the case study from the sculpture to Casa de Fuseta, as well as the interpretative process of metamorphosis (Subsections 3.1 to 3.3). Section 4 is dedicated to the main theoretical and conceptual influences of Arruda's artwork. The conclusions are presented in Section 5.

2 MATERIALS AND METHODS

To support the critical analysis of Casa da Fuseta, bibliographic research was done, and two interviews were conducted with the architect. The interviews are not fully transcribed, reproducing the essential to understanding the transition process from sculpture to Casa da Fuseta.

The archetypes common to both works - sculptural and architectural – are approached, reflecting in qualitative terms on the elements added or subtracted in this transition and how they topologically articulate with the pre-existing house, in an aesthetic reinterpretation of architecture.

3 CASE STUDY

3.1 From sculpture to inhabitable sculpture

Gabo, the leading exponent of Constructivism, believes that sculptures should interact with space around them, rejecting the idea that they should be static entities (AA.VV., 1996). Additionally, Montaner (2001, p. 38) states that the idea of place is differentiated from that of space due to the experience. The place is related to the phenomenological process of perception and experience of the world, on the part of the human body. “Uno cuerpo está en un lugar si tiene otro cuerpo que lo envuelve, sino no.” (Muntañola, 1974, p. 20).

The fulfillment of this transformation – sculpture in architecture – takes place when someone feels involved in the architectural object, in which the object is converted into place, i.e., there is a conversion of the object into a “corporal interval” (Muntañola, 1974, p. 20). At this moment, there is architecture (Janeiro, 2007).

The first interview focused on the 1968 sculptural object and the origin of the scaling-up to generate the Inhabitable Sculpture.

Authors (A): For you, what mean to be an artist?

Miguel Arruda (MA): (What a great provocation ...). I have been looking for many years ... it is an atavistic, inner, enigmatic process that feeds and consumes me. It is the art of looking at what is not visible, it is a constant and endemic restlessness and, at the same time, due to its complexity, it is extremely simple.

A: What have the sculptural object to reborn and how the change in scale transforms it into an Inhabitable Sculpture?

MA: ... these processes are labyrinthine. In 1968, I had the opportunity to exhibit drawings and sculptures at the Diário de Notícias Gallery, including this sculpture in chrome

iron. This sculptural object worked symbolically as a seed. In 2009, as an architect, I was curious to investigate, through the change of scale, the meaning of articulating the geometric shapes that the sculpture contained and what impact would result from this architectural materialization.

3.2 The inhabitable sculpture



Figure 1. Inhabitable sculpture in the CCB garden (photo Fernando Guerra).

As a result of the evolutionary process of the initial object, in 2010, a metal construction covered with cork, upscaled 56 times, was installed in the gardens of the Centro Cultural de Belém (CCB) – the Inhabitable Sculpture (Figure 1). Referring to the conceptual shape, Arruda described it as having “an anthropomorphic root, whose shapes are implicit in the human body, according to my sculptural path” (interview with M. Arruda, 2020).

On the theoretical and cultural bases of this work, Arruda refers to the concepts inherent to modernism, which were expressed in the works of Team 10 by Peter and Allison Smithson, in the ‘corporal’ solutions and Pop Art, which influenced the organic archetype and gave rise to the articulations of the original sculpture. Another significant influence for understanding this scale changing stems from Brancusi: “Architecture is Sculpture,” stimulating the movement of people around his creations as part of the work itself (Read, 1966 apud Markovic, 2016). In turn, Collins (2014, p. 6) defines sculpture as an expressive language in common mutation, in tune

with society's mutation, referring that "the invention and the complexity of the contemporary world are linked with the invention and complexity of contemporary sculpture."

3.3 *From inhabitable sculpture to Casa da Fuseta*

3.3.1 *Interpretative process of Arruda's work*

The intrinsic relationship that art has with life leads Arruda, as an artist focused on the creative process, to quote a phrase by Paul Klee (Wick, 1989, p. 335): "We are artists, active people, and we act by nature in a preferably formal environment, but we must try to go beyond that."

Another relevant conceptual root of this journey was William Morris (1834-1896), a multifaceted artist who believed art should meet social needs without distinction between shape and function (Brandão, 2020).

The sculpture that gave rise to the Inhabitable Sculpture existed only as a shape until it was transformed into a substance. The creative process originated in the intentionality of the inner journey that Arruda makes, starting from the sculpted object and arriving at the 'rediscovered architecture' (Rossi, 1998, p. 45) on another scale or starting from the "manipulable" object and transforming it into the "penetrable," in the words of Delfim Sardo.

On the other hand, the word 'manipulable', associated with sculpting, refers to the concept *manuductio* – presented by Nicolau de Cusa in the 15th century, which, in Arruda's work, functions as a fundamental aid in the dialogic relationship between drawing and a constant learning path, which is not an accessory, but a constituent one" (interview with M. Arruda, 2020).

3.3.2 *Fuseta's morphological and environmental framework*

Casa da Fuseta is located on the coast of the municipality of Olhão, in the Algarve region, southern Portugal. It benefits from a humid Mediterranean temperate climate, hot and dry summers, and mild winters (CMO, 2012). It is part of the lagoon and dune system that constitutes the Ria Formosa Natural Park (RFNP) (MPAT, 1987), one of the most important wetlands in Europe (CMO, 2012). At the rear of this system, the landscape rises to the north, with slopes of great landscape interest, occupied by forest (CMO, 2012). The landscape of the RFNP is characterized by three large structural units: the lagoon area, the beach/dune systems, and the continental band (CMO, 2012). It is also characterized by the smoothness of the relief, not exceeding the height of 60 meters, corresponding to the terminal part of the amphitheatre towards the sea (CMO, 2012). To the south, it is limited by a set of barrier islands in the sandy coastal strip, which separates it

from the Atlantic Ocean (CMO, 2012). Brandão (1967), when he passed by Fuseta in 1922, describes it as two impressions that were fixed on his spirit forever: the extraordinary night, the wonderful light. He adds that the light sustains and this light is enough to be happy. And he concludes it is that light who enchants the Algarve.

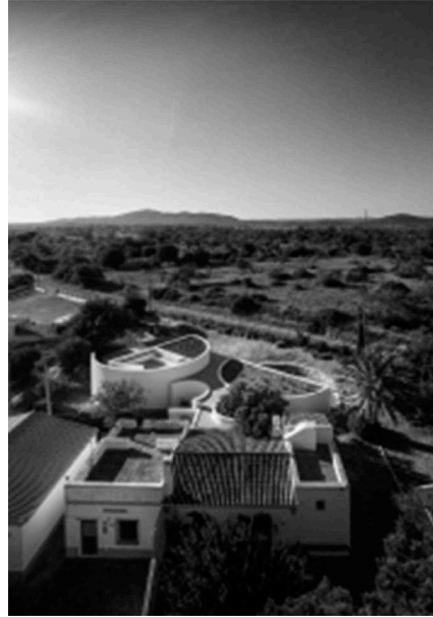


Figure 2. Aerial view of the expansion of Casa da Fuseta (photo Fernando Guerra).

In the second interview, questions related to the genesis of the architectural design of Casa da Fuseta were addressed.

A: What were the privileged criteria in the transition from sculpture to architecture, and how was this innovative inhabitable experimentation accepted by the owners?

MA: It was assumed to make the transition from the formal lexicon of the sphere, cylinder, and cone, resulting from the experiential reading of Inhabitable Sculpture, interpreted planimetrically and offering an anthropomorphic spatial experience. The objective was to transmit, through the addition of this new concept of living, a feeling of welcome (which is inherent to the sphere concept), that is, housing as a 'micro world' and, at the same time, of opening to the outside (cut sphere). The owners have been our friends for many years, and, in this relationship, there was also a strong impulse

towards the desire that this project design came to constitute, and which had a very positive impact and acceptance of this concept of living, with the addition of this space of coexistence and sharing for the family (Figure 2). The light was another essential element I associated with others, such as color, space, and plasticity.

A: How did you reconcile the pre-existing house and landscape and integrate them with the design program?

MA: The program foresaw expanding a typical small house, which was maintained and allowed the confrontation between the old (the vernacular) and the contemporary. The altimetry of the old house was respected and was taken advantage of the existing trees, including them in the geometry (Figure 2). Two trees determined the sinusoidal design of the corridor that connects the old building to its extension, consisting of two semi-circular volumes – the first with two bedrooms and a bathroom and the second with the living room and the kitchenette. A third tree defines the location of the swimming pool in the outer semi-circle, which adjoins the living room. In this semicircle, an exterior staircase was designed to give access to a terrace. Also, the green cover of the two semi-circular volumes contributes to the improving the thermal performance and integrates the house in the surrounding landscape.

3.4 Transition process from sculpture to architecture

This process is illustrated through the evolution expressed in Figure 3, moving from the schematic plan (Figure 3, top) to the architectural design (Figure 3, bottom).

In the transition process from the three-dimensional sculpture to the architectural design plan, the anthropomorphic shape is still present in step 2 (Figure 3, bottom), identified in the outer space of the shape by A and B. When it is sectioned, it is converted into a pure geometric shape (circle) in step 3 (Figure 3, bottom), losing part of the anthropomorphic framework of the sculptural piece.

According to subsection 3.1 reflection, the influence of Gabo is felt, due to the strong connection with geometry, identifying through balance games between the plane, the line, and the use of primary colors (including black and white) the works carried out by the constructivists to support the transition from sculpture to architecture (Figure 4).

It is also verified, based on this transition, that the connection between the old house and the new one is intercepted by two semicircles (Figure 4, top), which come loose from the initial shape, to frame the two pre-existing trees, which give rise to a wave motion and allow light entrance between the spaces.

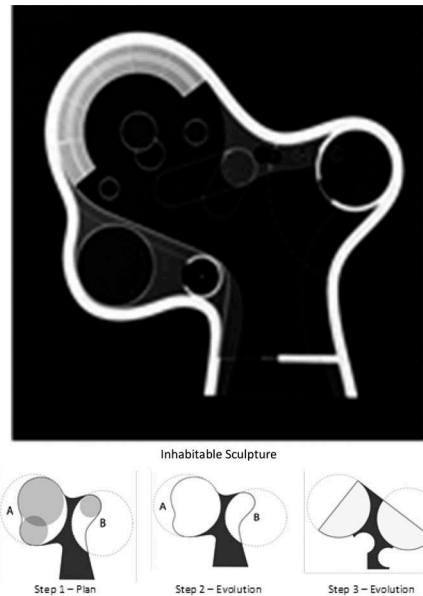


Figure 3. From inhabitable sculpture to architecture (drawings by Miguel Arruda).

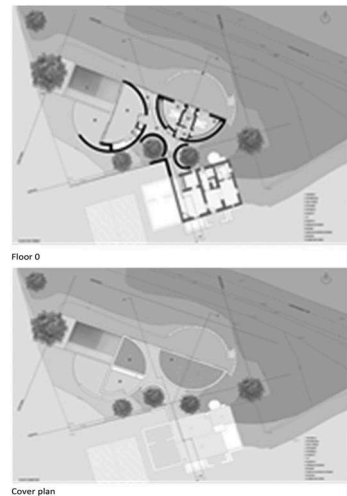


Figure 4 . Architectural design (Top: floor 0; bottom: cover plan) (drawings by Miguel Arruda).

The flat roofs were landscaped with native plants (Figure 4, bottom), contributing to sustainable energy and environmental performance. The stairs give access to a roof terrace, revisiting it according to the modernist and geometric vision of the architect, creating interstitial spaces at different levels, suitable for various recreational activities, providing the views of the surroundings through the architecture.

White color was used throughout the building, both internally and externally, reflecting the solar incidence and inserting itself into the contrasting landscape but harmoniously integrated into the surroundings. The light plays a predominant role, allowing the separation between the structure and the walls that come loose, establishing different games of light and shadow reinforced by the shading system.

4 THEORETICAL AND CONCEPTUAL INFLUENCES

Some characteristics of Arruda's journey are influenced, in an unavoidable way, by the antagonistic view of two renowned authors of modern architecture:

- Le Corbusier, with his vision of the house as a "machine" for living, understood that it must correspond to a standard man, stating that all men have the same organism and the same functions. He adds all men have the same needs (Trachana, 2000, apud Leite, 2020, p. 84), and
- Adolf Loos, who defended that the interior of the house should be like a "velvet case," that is, privileging, above all, the architectural quality of each solution, since a place is a 'home' of things and a dwelling of man among them (Cacciari, 1989, p. 113, apud Leite, 2020, p. 95).

It is understood that Le Corbusier influences Arruda's work on several levels: as a sculptor when Arruda relates to *manualitá*, like a painter using organic elements comparable to the Ville Savoye plan (Brandão, 2020); and fundamentally with its originality and artist's vision: architecture is visible in the painting, painting is visible in architecture, and the same is valid with sculpture. Referring to Le Corbusier and symbolically linking the role of arts and poetry as fundamental elements for society: "There are not only sculptors, nor only painters, nor only architects; the plastic event fulfills itself in an overall way serving poetry." (Weber, 1988, p. 4).

Also noted are the influences of Loos in Arruda regarding the search for architectural and aesthetic quality, which translates into the creation of design pieces of his own (e.g., cork chair) and a personalized environment, combining architecture and design.

It also refers to the work of Pancho Guedes who, both paints pictures that inspire him in architecture design and architecture that inspires him in paintings.

Pancho Guedes stated that architecture, sculpture, and painting are a single language, with an endless alphabet. His words, which lend to each other, are ideas, dreams, gestures – lines, shapes, colors, volumes and time (Guedes, 2007, p. 74 apud Martinho, 2012/13, p. 111).

Frederick Kiesler, like Arruda, questions functionalist dogmas as one of the few architects familiar with surrealism. The Endless House project (Kiesler, Bogner, Noever 2001), started in 1949 and never completed, creates, like the Inhabitable Sculpture of Arruda, an organic housing system, which articulates shape and content as a means of combining the needs and conditions of contemporary man. Housing thus participates in the flow of life as a living and organic body. The endless house has this name because all ends meet itself and meet continuously (...) each element of a construction or a city, whether it is painting or sculpture, interior installation, or technical equipment, is not conceived as the exclusive expression of a single function, but as a nucleus of possibilities which will be developed through coordination with other elements. The correlation can be based either on physical conditions, on environmental conditions, or even on the very essence of the real element (Kiesler, Bogner, Noever, 2001, p. 11).

It is also understood that there is a parallel with the poetic vision of Zumthor (1999): In this way, I dive into the place of the architecture design, I feel it and, at the same time, look out at the world from my other places. Of the works that build a special presence in their place, I often have the impression that they have an inner tension that points beyond the place itself. They base their concrete space while revealing the world: What comes from the world has entered them in connection with the place.

As explained, similarities were found in the experimental strategies that motivated the artistic creations of the various authors and the questions that were at the origin of the questions about the ability of art or architecture to transmute social reality itself.

In the same way that different languages are distinguished from each other, through their specific way of looking at the world (Mendes, 2009), it is understood that Arruda's work contributes, through its innovative and integrative perspective of the arts, to convey new architectural shapes and visions of interpretation of the concept of living, providing experiences to those who choose a specific identity and not a mere generic architecture.

The role of the architect, using his knowledge of geometry to transcend mere representation, is essential to raise the value of the place that would not be recognized without his cognitive ability. As Nicolau de Cusa said, the human mind enables the value of things to become evident (Kues, 2002, p. 115 apud Guendelman, 2014, p. 65).

The tension identified by Zumthor (1999), between the architectural design and what is beyond the place, is visible in the way in which the Fuseta house includes the archetype that gave rise to it and,

at the same time, is freed from it through geometry, interpreting the spirit of the place where, at the same time, it integrates organically and involves the architectural experience of living in nature and in the landscape that characterizes Fuseta.

5 FINAL REMARKS

The architectural design to expand the pre-existing housing in Fuseta contributed to establishing a dialogue, in which both languages communicate with respect for tradition and interconnect harmoniously through the geometric shapes purified from the sculptural model. According to Arruda's aesthetic sensibility, the implantation and interconnection of the new dwelling (separated by the two distinct circles, living rooms/rooms, and connected by a spatial path to the pre-existing dwelling) took advantage of the value of the place, identifying the peculiarities of each geomorphological position inherent in the short and long-distance relationships with the pre-existing house.

Arruda's artistic vision allowed to add to a traditional house with strong cultural roots, a housing model different from the conventional one, demonstrating how modernity and tradition can be compatible with creativity. Above the creative act, it made possible the transformation of a space, without negatively interacting with aspects of an environmental nature, so that the owner family could enjoy the desired quality and be impregnated with the users' personalities. This internal deconstructive process, which was necessarily slow, was essential to find answers to the conceptual questions and cultural references inherent to it, about the way one wants to live in the future and the cultural legacy left to the descendants for a happier society.

It is concluded that the vision of a dwelling, both purified and rich in the way it was connected to the place and history illustrated in this paper, radically different from what is established, can be classified as an operative utopia, constituting a line of thought that must be transmitted and disseminated as a pedagogical contribution, essential for the future of new generations.

ACKNOWLEDGMENTS

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São Paulo Tower: Recreating a Brazilian unbuilt visionary housing project with the help of mind, technology, and emotions

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ABSTRACT: The unfinished Brazilian architectural project of the Torre São Paulo residential building dates from 1990. It is a proposal with an innovative design ahead of its time. Conceived by the Italian designer and architect Gaetano Pesce, the project's central idea was the pluralism of ideas and the creative freedom granted to the minds of the invited professionals. Twelve Brazilian architects, who, according to the building's creators, represented the best architecture practiced in that period in the city of São Paulo, Brazil, were invited to design the different apartments. They produced a housing building composed of eleven duplex apartments, totally different internally and externally. The result is a unique tower, where the different projects are placed linearly, and based on a pre-designed base structure, form a kind of vertical street, with one duplex apartment per floor.

The chapter's main objective is to present the innovative project, discuss and display the methodology and processes of digital redesign implemented in the research on the Torre São Paulo building. The importance of studies based on unbuilt projects is shown, the redesign stages, the difficulties and possible contributions to be encountered, and the feelings in the researcher's mind at each stage of the thorough investigation required for this type of research.

Keywords: São Paulo Tower project, Unbuilt projects, Housing projects, Pluralist projects, Project Redesign

1 SÃO PAULO TOWER, AN IMPORTANT AND FORGOTTEN UNBUILT PROJECT

The absence of significant built works cannot be confused with the absence of projects (Perrone, 1993, p. 352)¹

The São Paulo Tower project is a Brazilian unbuilt proposal designed in 1990. It resulted of the partnership between the Italian architect and designer Gaetano Pesce and the real estate companies *Método Engenharia* and *Lopes Incorporações imobiliárias*.

The utopian and visionary intention, clearly ahead of its time, proposed a luxury building with eleven duplex-type residential units, up to 406,00 m² each. The units were designed independently and without aesthetic connection with the others, thus proposing a new way of conceiving a residential building in the world scenario, based on the pluralism of ideas.

Eleven architecture firms working in the city of São Paulo were invited to take part in the project. According to the promoters, they represented the best of the sector in the city at the time and

developed the housing units projects independently. The group was formed by the following architects: Miguel Juliano, Ricardo Julião, Ruy Ohtake, Carlos Bratke, Paulo Casé, Eduardo de Almeida, Marcos Acayaba, Roberto Loeb, Paulo Mendes da Rocha, Vasco de Mello in partnership with Tito Lívio, and Eduardo Longo; Roberto Burle Marx was responsible for the landscaping project.

From the beginning, the creators were free of pre-conceptions and aesthetic constraints. Despite being in vogue in the São Paulo architecture scene, the invited architects did not follow the same schools of architecture, assuming different architectural languages: in the building's design, we can identify modernism, post-modernism, and a local group questioning the rigid dogmas of modern Brazilian architecture named the 'non-aligned.'

There was no interference in the development of the individual proposals and no exchange of information between participants. Total freedom of creation about the program was allowed to the architects, which promoted the expected aesthetic result of the building, expressing the plurality of thoughts, ideas, languages, and expressions.

1. Translated by the authors.

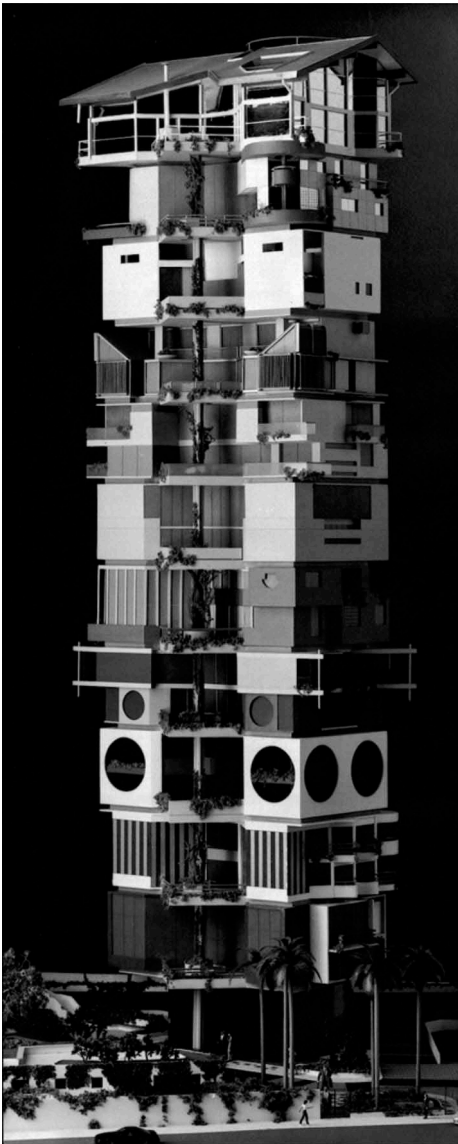


Figure 1. Gaetano Pesce, Adriana Adam, Miguel Juliano, Ricardo Julião, Ruy Ohtake, Carlos Bratke, Paulo Casé, Eduardo de Almeida, Marcos Acayaba, Roberto Loeb, Paulo Mendes da Rocha, Vasco de Mello, Tito Lívio, and Eduardo Longo, Torre São Paulo, São Paulo, Brazil, 1990, Unique original perspective. © Credits: Promotion Booklet of the São Paulo Tower, Construtora Método e Incorporadora Lopes, 1990.

With the slogan “Torre São Paulo: one house per floor,” the proposal aimed to make the building an architectural landmark in the city of São Paulo.

The proposal is of great interest to study housing architecture worldwide and modern Brazilian architecture, becoming a building with innovative and

unique aesthetic qualities. Although it was launched commercially, with wide publicity in the local press, the building ended up not being built by decision of the entrepreneurs, becoming an important but forgotten unbuilt project, never studied before.

Without an exhaustive analysis of the reasons for not building the project, one can point out that Brazil experienced a strong economic crisis and suffered from high inflation; between the 1980s and 1990s, Brazil had six currencies.

1.1 *São Paulo Tower and the study of unbuilt projects*

The study of unbuilt projects has recently been increasing and wide-spreading within the discipline of architecture, although its importance is still insufficiently known and recognized.

With each new study conducted, the importance of close research on these projects – overseen by the simple fact of not having been built – is proven,

In the field of architecture, the reading and analysis of unbuilt projects may contribute to support a more assertive study on architects, artistic movements, and cities, showing ideas and thoughts in those minds that would possibly be lost in time. This study also allows to establish relationships to other researches, which aim to list only the built works, disregarding and excluding the unbuilt projects and the information present there, thus contributing to and expanding the knowledge not only in the field of architecture and urbanism but also in history, theory, and social criticism.

The unbuilt projects expose the complex design work of the architect, where the ideas inside the minds exist regardless of being physically realized in time, and regardless of this circumstance, they contribute to the accumulation of experiences and sum of knowledge throughout the professional’s career. This is the case of the São Paulo Tower Project, which consumed hours of hard work and professional dedication.

These projects may be filed away and ignored, getting lost in time. This can prove to be a great mistake, in as much as it makes it impossible to carry out countless plausible investigations through them. Utopian, visionary, emblematic, and futuristic, some projects are often impossible to execute in their time; but they constitute noteworthy examples of architecture that deserve to be studied.

The promotional booklet and the work contract for the São Paulo Tower – the most complete documents found for this research were archived and forgotten in the architect Vasco de Mello’s studio. At each interview with the other professionals participating in the project, it was requested, if possible, the availability of new archived documents related to the proposal:

So, the architect Marcos Acayaba provided some newspaper and magazine reports about the building, published at the time of its commercial launch and filed by him. It is worth mentioning that, when informed of the existence of this study, the architects and the creator Gaetano Pesce were happy with the rediscovery of the project and stressed the importance of the study.

Several reasons may lead to the non-physical execution of a project: economic and social factors; lack of interest on the part of the client or architect; projects designed for competitions that did not achieve first place; or winning ideas that were not realized by the organizers; among others. There are also projects developed without the real intention of being built, that being free of laws and prejudices can sometimes express the true artistic essence of the professional.

The fact is that even unbuilt, the project was created, the ideas were produced and transferred from the mind to the paper, regardless of its final materialization.

The diagram included in *Unbuilt America: Forgotten Architecture in the United States from Thomas Jefferson to the Space Age* (Collins; 1983), and the book *Vilanova Artigas Unbuilt Residential Projects* (Tagliari; Perrone; Florio; 2017) present a path for the categorization of the types of unbuilt projects.

Visionary Projects, Futuristic Projects, Utopian Architecture, Imaginary Projects are the categories presented in the book and applied to this essay. The São Paulo Tower fits as Visionary Projects, ahead of its time, which happened in the wrong time frame, i.e., society, economy, or technology, despite the creators' efforts, were not prepared for its execution.

Visionary drawing does not stand outside the basic scheme of architectural development – it just, sometimes, wants to make a leap forward. (Peter Cook, 2008, p. 73)

This, however, does not mean that with time, whether be it years, decades, or even centuries, the same reasons that contributed to the non-construction of the project in 1990 may in the future make it real, whether in São Paulo or anywhere else in the world.

Visionary designs are those that exceed an immediate solution for the present and cast valuable ideas for the future. The term visionary can mean extravagant and eccentric ideas. Visionary designs can be considered eccentric precisely because they launch novel ideas that are not entirely suitable for the present situation. (Tagliari, Perrone e Florio, 2017, p. 41)²

Other studies based on the approach of unbuilt projects that require highlighting are, Antonio Foscari's

(2010) book, "Andrea Palladio. Unbuilt Venice" which presents and analyses the Italian architect's unbuilt projects for the city of Venice; Mirko Galli and Claudia Mühlhoff's (2000) research on the also Italian architect Giuseppe Terragni, who of the almost one hundred projects developed only twenty-four were built; Alison Sky and Michelle Stone (1976) who studied projects not built in the United States in the last 200 (two hundred) years; Peter Cook in the book "Experimental Architecture" (1970) says about the value of projects characterized as experimental, being them built or not; Novitski (1998) who created virtual models for analysis of projects that no longer exist or were never built; Takehiko Nagakura (1990), from MIT, whose research resulted in the short film "The Unbuilt Monuments", virtually built important proposals from different and renowned architects that were never realized; and Pippo Ciorra who has a study about the Italian architect Aldo Rossi and his unbuilt projects.

It is important to point out research that even not having as main focus the study of unbuilt projects confirms the importance of these investigations when analyzing the body of work of an architect, as is the case of Peter Testa and his research on Portuguese architect Álvaro Siza; Peter Reed and his study on Estonian architect Louis Kahn; "Piranesi Project" (2016) by Brazilian photographer Olympio Augusto Ribeiro; and the book "Antonio Sant'Elia: The Complete Works" (1988) by Luciano Caramel.

It is also worth mentioning some important exhibitions held in different countries with the theme of unbuilt projects, including *The Unbuilt Berlin* (2010), *Mies in Berlin* (2001) at MoMa in New York, *Unbuilt Chicago* (2004-2005) at the Art Institute of Chicago, *Unbuilt Caracas* (2010), and *Fantasy Architecture: The Unbuilt, The Ephemeral and the future* (2004).

Thanks to the research mentioned above, the effectiveness of applying redesign methodologies and the creation of digital and physical models for studies of built or unbuilt works is proven.

2 THE DIGITAL RECREATION

Technological advances in recent decades have contributed to the increase of research based on unbuilt projects in universities worldwide while also improving existing methodological processes. Another facilitating condition is the greater access to old drawings and documents, which can currently be digitalized and made available in an agile manner

The fact is that from the 1990s onwards, with the advancement of technology, research on built and unbuilt projects reached another level, the use of computers and various programs that enable a deeper and more concise analysis of the objects of study.

2. Translated by the authors.

The graphic simulation software is increasingly advanced, and the rapid prototyping technologies are more accessible to researchers, so the quality of digital immersion provided by these tools has also expanded the possible analysis of unbuilt projects.

Here the computer is not merely used as a means of producing images or storing data, but it acts as the researcher's privileged partner, supporting the process of analyzing, interpreting, understanding and illustrating the projects studied (Galli; Mühlhoff, 2000, p. 10).

These projects, most of which were originally conceived without the aid of any digital tool, currently become permeable with the support of existing graphic, digital media, allowing new visualizations and sensations of what was previously seen only through old sheets of paper.

It is now possible to reproduce internal and external routes, whether pre-programmed or not, in addition to integrating the use of virtual reality glasses to experimentation, a situation that amplifies the sensations and perceptions of design, not to be found without the digital redesign methodology.

With the rendering techniques, a digital model becomes the basis for numerous explorations, such as analyzing the play of light and shadow existing inside and on the facades of the projects, i.e., it is not just redesigning for the sake of redesigning, it is trying to get as close as possible to the proposed spatiality.

Given the research carried out, it is possible to state that the animations make it possible to investigate and better understand spaces designed by architects to get closer to the perception that one has when one is inside spaces in physical reality. (FLORIO; TAGLIARI, 2016, p.72).³

As the digital world advances, the production of mock-ups in different scales has also become easier, the cost to buy and use this equipment has been drastically reduced in the last years. Thus the elaboration of physical models has become faster, simpler, and more effective.

The transfer of a digital model to the universe of physical models enables other new impressions on the unbuilt projects, materializing them. The mock-ups amplify the perception of space through the physical touch; the understanding of geometries becomes simpler by the possibility of touching and rotating the physical models before the eyes.

Apparently, the big difference between drawings and physical models seems to be that while drawings are made on two-dimensional support,

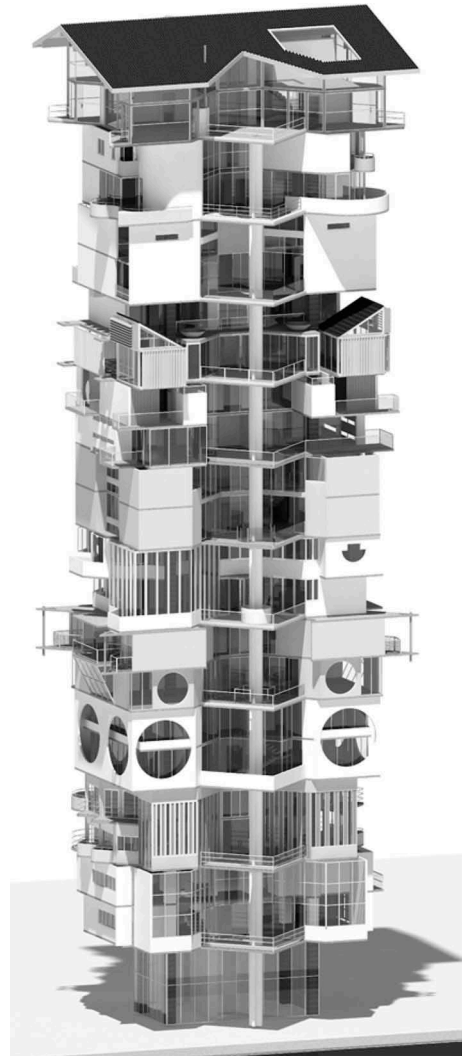


Figure 2. Gaetano Pesce, Adriana Adam, Miguel Juliano, Ricardo Julião, Ruy Ohtake, Carlos Bratke, Paulo Casé, Eduardo de Almeida, Marcos Acayaba, Roberto Loeb, Paulo Mendes da Rocha, Vasco de Mello, Tito Lívio, and Eduardo Longo, Torre São Paulo, Lisbon, Portugal, 2021, 3D digital model produced for the research. © Credits: Arthur J. de Macedo.

imitating our way of seeing in conical perspectives, or abstracting in orthogonal projections, physical models represent space in space, three-dimensionally can be touched by touch and bodily senses, without the illusion and abstraction of coded drawing techniques. (ARAUJO; FLORIO; SEGALL, 2007, p. 04).⁴

3. Translated by the authors.

4. Translated by the authors.

No matter how real the images are created and reproduced on screens, and their ability to configure different parameters such as light and color, virtual models cannot recreate the emotions and sensations that the simple physical touch produces.

In summary, thanks to the combination of methodologies currently available, digital and physical, the results of research on unbuilt projects are increasingly becoming more efficient and surprising.

We have knowledge from different studies about the importance of digital simulations to fully understand the architectural object in fabrication, modeling, and digital simulation. Among these we can point out Bob Martens (2003, 2004, 2006); Thomas Kvan (2003, 2004); Robert Krawczyk (1997); Leandro Madrazo (2000); Rodrigo G. Alvarado (2003); Mauro Chiarella (2009, 2010); Maria H. Tosello (2010); Fernando Amen (2012); and Arthur de Macedo (2018).

All representation techniques have positive and negative factors; producing quality research with satisfactory results is the sum of these resources, extracting and applying the best of each methodological process in the correct steps.

3 THE REDESIGN AND DIGITAL MODELING OF THE SÃO PAULO TOWER

From the theoretical references, we realize that multiple approaches in the study of unbuilt projects are possible, from objective research with pragmatic views to more conceptual and theoretical approaches using the interpretation of images in their analysis.

Incorporating this knowledge, a methodology for the redesign and creation of the digital model of the São Paulo Tower project was conceived, considering the foundations obtained in research and the particularities of the proposal.

Briefly and objectively, the methodological processes adopted were as follows:

1. identification, organization, and analysis of the documents obtained. The files found were scanned and arranged in separate electronic folders according to the architect and the position of the dwelling unit in the building;
2. Two-dimensional redrawing separately of all plants found using AutoCAD 2020 software, following the same pattern of Layers for the constructive elements pointed out. To obtain measurement information not presented, the methodology of graphic scale approximation was applied by inserting the scanned images in the software and identifying standard measures, such as wall width, door width, and tread dimensions on the stair runs. From this information, a graphic scale was created and the remaining measurements identified;

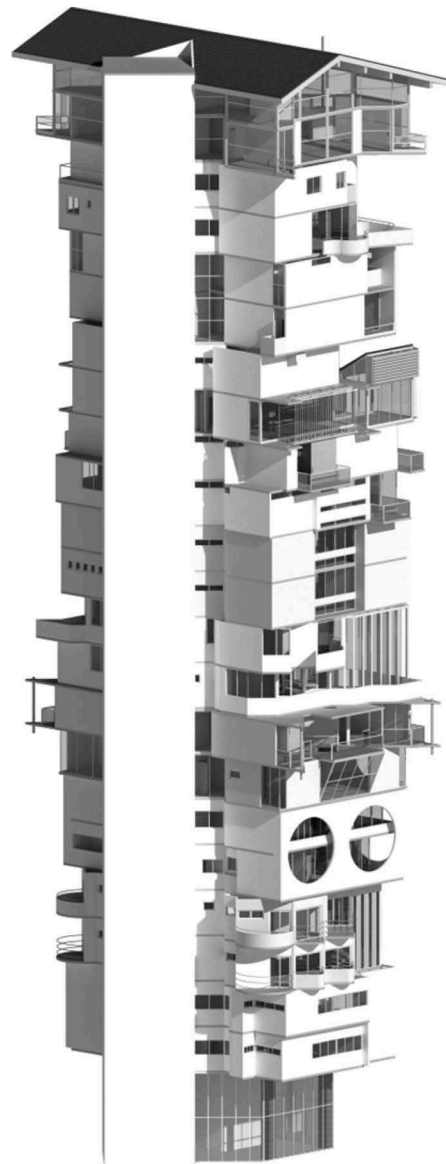


Figure 3. Gaetano Pesce, Adriana Adam, Miguel Juliano, Ricardo Julião, Ruy Ohtake, Carlos Bratke, Paulo Casé, Eduardo de Almeida, Marcos Acayaba, Roberto Loeb, Paulo Mendes da Rocha, Vasco de Mello, Tito Lívio, and Eduardo Longo, Torre São Paulo, Lisbon, Portugal, 2021, 3D digital model produced for the research. © Credits: Arthur J. de Macedo.

3. Import into Revit 2020 Software the graphical material produced in the previous step using AutoCAD 2020 Software. In Revit, the drawings were organized and arranged in their respective reference levels;

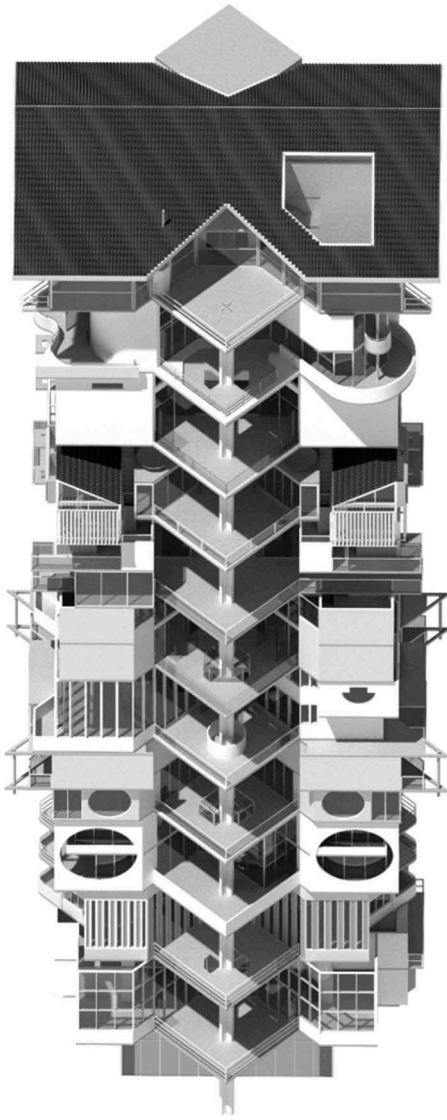


Figure 4. Gaetano Pesce, Adriana Adam, Miguel Juliano, Ricardo Julião, Ruy Ohtake, Carlos Bratke, Paulo Casé, Eduardo de Almeida, Marcos Acayaba, Roberto Loeb, Paulo Mendes da Rocha, Vasco de Mello, Tito Livio, and Eduardo Longo, Torre São Paulo, Lisbon, Portugal, 2021, 3D digital model produced for the research. © Credits: Arthur J. de Macedo.

4. Starting the 3D model creation: Individual geometric modeling of the housing units, incorporating walls, doors, windows, stairs, and facade elements. The process was carried out with three screens, displayed in each of them respectively, an original perspective of the building documented and scanned, Revit 2020 software, and the original plan of the housing unit also documented and scanned. This methodology allowed the researcher's mind to

work simultaneously in the production of the digital model and the identification of the original 2D and 3D information of the project;

5. For information not presented in the originals, such as the height of windows, windowsills, and other information, two methodologies were applied: creating a graphic scale and identifying similarities. To exemplify the second, in the research of the São Paulo Tower, no original perspective of the left side façade of the building was found. To obtain this information, we resorted to references in other original images available of the housing unit itself, some of which are symmetrical proposals. In others, we used sensitivity to analyze the elements found in the existing images and reproduce them for the views not available in the originals. This technique allows the mind to identify and associate the elements under study more easily over time;
6. Identification and application of materials to the elements, such as idealized colors on the façades;
7. Use of Lumion software in the generated model, configuring parameters of materials, lights, and cameras;
8. Production of rendered images from different focal points of the building facades and the internal environments to assist future analyses.
9. 3D physical model: From the model generated in Revit Software, it is possible to export the file in the extension. STL (Standard Triangle Language), making it feasible to produce volumetric physical models using rapid prototyping equipment. This step will be the next to be performed in this research and contribute to specific analyses and publications in the future.

4 FINAL CONSIDERATIONS

Pluralist projects can express to society, regardless of the aesthetic sense, the various concepts, techniques, and artistic expressions present in a given place and period, since they elect the same object, in this case, a housing unit, to be worked on by different professionals, with distinct styles, techniques, and visions.

Pietro Maria Bardi praises the proposal and stresses that the building will interest other adherents to the proposed aesthetics in a preface in the promotion notebook. He states that it involves changes in principles and opening original constructive modes in the real estate sector, with an elitist standard. He states that the project will produce criticism, attacks, and discussions for housing architecture and Brazil. With utopian characteristics, these projects enable professionals to develop their concepts without prejudice and shyness, manifesting their effective architectural features.

The chapter assumes the condition of being a sample analysis on the redesign methodology and 3D digital modeling, among many other possible interlocutions to

be analyzed among the eleven different proposals developed to identify similarities, contrasts, and project identities of Brazilian architecture.

The redesign of the Torre São Paulo building and its digital modeling will enable new studies on the project, contributing to a better understanding of the Brazilian architectural scene, especially the Paulista School of Architecture between 1980 and 1990.

It also contributes to improve the studies about the architectural styles present in it, such as modernism, brutalism, post-modernism, and locally the 'non-aligned' ones, all idealized for the same proposal and under the same guidelines. It also allows the presentation on an international level of a unique typological proposal, which could be lost in time by the simple fact of not having been built.

The lack of technical material and the quality of the available drawings are obstacles when conducting research based on unbuilt projects. It is an arduous task for the researcher because much information is scarce, some do not exist, and others are not available. It ends up being an archaeological work of patience and thorough research.

The implementation of Revit software facilitated the process of creating the digital model of the São Paulo Tower project, due to the complexity of the proposal in different ways, whether aesthetic or constructive, the program provided a broader view of the constructive process and the whole work, from the organization of documentation to the integration between 2D and 3D views of the project, allowing the mind to penetrate the dimensions and design particularities of each proposed housing unit, and the interconnections between them.

In the present study, unlike some of the research referenced here, we chose not to search for unavailable information in other projects of the architect, forcing the mind to work only with the information found in the documents found on Torre São Paulo. In this research, we accepted the fact that some information at certain moments would not plausibly be identified according to the pre-established research parameters, for the simple fact that they were not conceived and defined by the architect at the time of the project, taking into consideration that the São Paulo Tower project was only completed up to the preliminary design stage. Internal and external cladding, railings, and window and door frames were not found and elaborated. Even if it is a natural act, the researcher's mind was not allowed to produce and imagine the information about the elements not found.

In the study of unbuilt projects, the line separating the mind between redesigning the information found, with the urge to create and imagine elements not easily identified, is very thin. It is of extreme importance to the researcher the sensibility to know the moment to stop and not to overcome the impulse to project on the studied projects.

Redesigning a project is a process that stirs emotions, provides visualization of a project as never before, both for the researcher and for the architect, who has in some cases the possibility to see an old and forgotten project become something practically real by digital methods, or palpable through 3D printer mock-ups, bringing out sensations and observations that only the drawings on paper were not able to express.

ACKNOWLEDGMENT

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Architecture, the starting point: A school in Ocuana

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ABSTRACT: The education system is the structural pillar to forming individuals and communities, being the most effective tool for promoting communities and nations' qualification and human development. The present case sets from this conscience and explores, in the territorial setting of Inharrime in Mozambique, a project that promotes with the local population the conditions to study and learn in the context of creative sharing. The community of Inharrime depends entirely on subsistence farming, complemented by a fragile local economic trade system, highlighting the needs of its population aggravated by the years of civil war. Resorting to the reinterpretation of vernacular construction strategies, the new School of Ocuana's proposal takes architecture as a strategy to empower the territory's starting point to enhance human development. Recognizing the benefits of education for discovering the paths of progress, the project takes advantage of participation processes as strategies for integrating and developing ties of belonging with the site, working beyond the school, houses that are added to it and sow the logic of a desired urbanity, adjusted to a territory in reconfiguration. The project methodology accommodates the chosen materials, the constructive process, and the locals' ways of living essence, articulating the functions and the intervention scales, using the school building project as an emotional anchor for sustained development.

Keywords: Mozambique, Dwelling, Community, Education, Participatory design architecture

1 INTRODUCTION – EDUCATION AND HUMAN DEVELOPMENT IN A TERRITORY IN SEARCH OF PROGRESS

Mozambique has eleven provinces distributed along the coast of the Indian Ocean, with the most impoverished communities being in the country's interior and furthest from the capital, Maputo. Outside the larger cities, access to essential health services, education, transportation, and public safety systems are scarce and challenging, with structural gaps in the education area, which are even more felt in the country's rural areas. The case presented in this project emerges from understanding this phenomenon, formalized by the proposal of a new school in the community of Ocuana, localized near Inharrime village, in a rural area without connection to large urban areas. Inharrime is in the southern part of the province of Inhambane in the north of Gaza. The center of Inharrime is its village which, like most of the Mozambican territory, is served by a single tarmac road, the National 1. In Ocuana, we found the founding impulse of the problem, inside the reality of an old school, located 8 km from the village of

Inharrime, heading west along the dirt road R480. Although the school is organized in four metal and reed rooms, none of them with desks or benches, the school does not offer enough conditions and needs a total reformation to serve the approximately 300 students that the school has accommodated. The awakening to this reality led to an understanding of the issue of education in remote contexts of Mozambique and to how the project of a school could be constituted as an engine of development and territorial aggregation, having in its architecture the determining factor for the processes of emotional involvement and integration of populations.

The civil war (1975-1992) led to significant losses in the educational structure due to the destruction of many school infrastructures and the displacement of millions of people to urban centers searching for greater security. These facts led to the abandonment and closure of many schools in the rural areas of Mozambique. In 1992, only 1.2 million students attended primary education, while in 1981 there were almost twice as many registered students, which means about 2.3 million children and young people enrolled in schools. After the Peace Agreement in

1992¹, there was a progressive effort to rehabilitate the school infrastructures and education institutions affected or destroyed by the war. However, it appears that this effort was not enough to recover from the country's educational deficiencies, aggravated by the very expressive growth of the school-age population. Currently, persists the difficulties associated with the low level of schooling in secondary and higher education, the low rate of completion of primary education, the illiteracy in adulthood, the gender inequality, the deficiencies in infrastructure, the low quality of education, the low level of education amongst teachers and the general lack of qualified human resources (Intanquê e Subuhana, 2018).

The relationship between education and development is evident in individual growth, but this relationship is even more critical when its consequences are noticed in economic progress. Education allows for an increase in human capital, which is recognized and assumes a role as equal or more important than physical and financial capital, especially in a country that seeks economic growth and socio-cultural progress, reducing inequalities, a growing concern for the environment. Investing in the education system promotes economic development cycles by opening the way for the population to understand and accept these cycles (Sachs, 2008). In addition, with a more substantial education structure, social solidarity will increase, and a sense of community is stimulated. In a society where there is an opportunity for each person to develop their talents and potential, individually or collectively, it is possible to achieve a higher work capacity and productivity, which, in its way, will enhance social development and, consequently, economic growth of the nations.

2 FROM THE SCHOOL TO THE COMMUNITY, A NEW OPPORTUNITY TO OCUANA

Starting from the fragility of the educational system in Mozambique and the potential in its requalification as an engine for development, a project strategy was established to give Ocuana a new school as an emotional anchor for the sustainable development of the place. (Figure 1)

The logic for the architectural intervention aimed to reach the most comprehensive dimension of the problem, to promote and improve the quality of life and stability of the population, to propose, in addition to the educational project, a dwelling unit that, through its aggregation logic, allowed to promote urban sedimentation to the territory. Thus, the creative process operating between scales (Louro,

1. The Peace Agreement was signed in Rome on October 4, 1992, by the then president of Mozambique, Joaquim Chissano, and RENAMO, Afonso Dhlakama, ending 16 years of civil war.

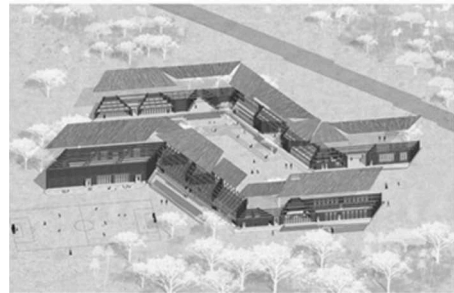
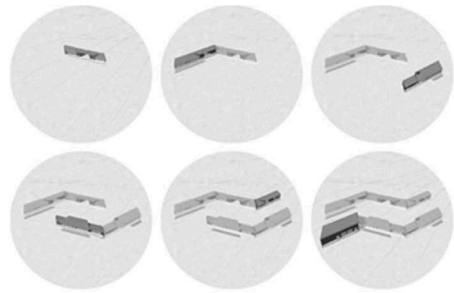


Figure 1 School proposal, by Sofia Outor, 2020.

2017) proved to be decisive in managing the problem and in the viability of an integrated intervention logic that starts from the object scale to reach the school building dimension, and from this to the community and the territory.

The surrounding area of the old school of Ocuana is rich in life and admirable nature, giving form to a memorable landscape. In this context and view of the inadequacy of the existing school equipment, the first purpose was to design a new school that would allow the rural community of Ocuana to unite around a participatory process that would promote an architecture capable of supporting an evolutionary project, sustained by self-construction, fuelled by a voluntary surrender of the populations to a collective project for the future.

In a context in which education is not yet assumed or understood as a priority, it proved to be fundamental to clarify with the community the advantages that exist in betting on a new educational space to prevent children from interpreting school as an obligation and beginning to understand it as the opportunity to change their life. This evolution of mentalities should occur not only with children but also with educators, teachers, and families, who often resist the idea of maintaining their children in the school path, recruiting them as “labor” for work in the country field, selling products on the market or any other type of family business.

Participatory architecture design, in this context, serves as an educational agent and proves to be

fundamental for collective involvement, creating a sense of community among all participants. Considering the methods of participation in architecture, the project intended to use transformative participation processes, that is, action models in which the community is involved since the beginning of the creative process, following, and participating in the construction phase, still educated and sensitized for the subsequent maintenance of the constructed buildings.

The creative process started with designing a simple module school desk in wood, an essential object for all the classrooms. In order to fulfill the concept of flexibility, this desk form is derived from the segmentation of a hexagon that can articulate with other similar desks in various ways, offering the user different classroom arrangements. At the object's scale, this particularity allows great flexibility in the composition and organization of the space, offering students different playful forms of appropriation, motivating, and stimulating the learning process itself (Hertzberg, 2008).

This variability ended up being reflected in the very spatial concept of the school buildings and spaces, which, in this way, will be organized into six bodies that enable the phasing of the educational complex to be built in seven different construction phases. This fact assumes the evolutionary concept of the project, reinforcing its participatory nature, enabling the progressive involvement of the community and the evolution of its capacities over time.

The first module to be built holds four classrooms, two of which are equipped with removable panels on the partition walls, which can be converted into a single, more extensive classroom to share resources.² The classrooms are oriented towards the outside and embrace the landscape using the permeable language of its longest façade, allowing to reach another fundamental educational space, the *machamba* (pedagogical garden)³.

2. The set of two classrooms has a purpose; it allows to overcome a difficulty felt in Mozambique and mainly in the rural areas: the absence or insufficiency of teachers during the school year. Unfortunately, in Mozambique, there is a reality of lack of human resources in professions that need higher education, and that is why in schools it happens, just like in hospitals, many users for only one professional. This results in classrooms with about 40 to 50 students in most cases, making it difficult for students to keep the attention and threatening the teacher's authority and responsibility. Even so, although the classes are always fuller than desired, many teachers miss classes or entire school days, and with this plan design, the characteristic of joining the classrooms allows that in exceptional cases, the same professor can teach two classes, enabling the students to remain in the school space.

3. The *machamba* functions as an intermediate space between the classroom and the recreational space. Educating to promote a more sustainable agriculture allows children to grow as future informed farmers who will be able

The second module is aggregated to the first one in constructive and structural terms and embodies the second phase of the construction of the school. It has three more classrooms, two intermediate spaces, and an area for sanitary installations, divided between the female and male areas.

A third module, autonomous and physically separated from the other two, allows the beginning of the configuration of an intermediate space for a second playground that is thus generated between the two "arms" of the school. This module, instead of classrooms, contemplates another essential component of the school program, especially in a context in which at least half of the students depend on the school meal for their daily subsistence. Using the same design logic, a larger space holds the cafeteria and an interconnected kitchen. This block also has toilet facilities, following the same constructive logic as those in the second module.

The fourth module of the school also establishes the fourth phase of construction. Four more classrooms are inserted in this building, and it is structurally connected with a third module. This building replicates the same typology as the first block, and if there is demand, some of its rooms can serve to host the pre-primary education, allowing for a physical and functional distance from the areas reserved for primary and secondary education. In Mozambique, the nursery is affectionately called "escolhinha," which means "tiny school," and it is also an educational sector that needs support and adequate spaces, as education in this first phase of child growth can prove to be equally essential, even in rural contexts.

The fifth stage of implementation establishes the construction of a block with smaller dimensions, which is constructively interconnected to the first and will align its volume with the canteen block. This block, designed to serve as the school's formal entrance, also has toilet facilities, an administrative service area, and an independent area to accommodate a teachers' room, an office, and a meeting room. It is essential that the functional program also serves teachers and educators as they are an integral part of the community, essential for the school's functioning, and crucial elements in the community extension processes of the project.

The sixth module will be the largest of all and serve the school and the local community. It is materialized as a large area, with a higher ceiling than the rest of the buildings, where sports, cultural activities, community meetings, etc., can be carried out. The multipurpose building also houses changing rooms

to make the best use of the natural resources. Working as a second classroom, the *machamba* (pedagogical garden) allows to create a stimulating and practical learning space, connect the child with the natural world, and develop their human values.

with sanitary installations and space for the infirmary and medical support, serving the entire community.

The seventh phase of construction introduces a new construction system in the project, based on adopting a new material: bamboo cane. This material, being light and flexible, makes it possible to add a second floor to the fourth module, in which it is planned to implement the school's library area. The roof of this building will remain the same, being disassembled and elevated at the time, resting again on an addition made to the existing adobe walls, raising the structure to create the space for the new floor.

With the formation of three outdoor play areas, the school will be completed with its six modules in seven constructive phases. The different natures of the three outdoor spaces allow creating conditions to generate different environments with specific vocations. The first, closer to the road (R480), provides a more formal moment of arrival, the second offers the opportunity for relaxation and play between classes, the playground of the children's domain, and the third outdoor space, next to the module from the gym can be appropriate for free outdoor activities, both on the initiative of the school or the local community. The design, versatile, permeable, and evolutionary of the project, open the possibility of adding new modules to the complex should this prove necessary and viable in the future. It should also be noted that the implantation of buildings on the site was studied to affect the smallest number of trees. The objective is to safeguard the landscape and maintain the natural character of the space, in many cases taking advantage of its shadows in the qualification of the outside environment.⁴

3 MATERIALITY AND CONSTRUCTION OF THE EDUCATIONAL SPACE, FOUNDATIONS OF A PARTICIPATORY PROJECT SPATIALITY

The construction systems and coordination strategies adopted were developed to enable the construction by the local community, according to the logic of participatory architecture (Jenkins, Forsyth, 2009), adapted to the effective involvement of a community that does not have the basic knowledge to read and interpret technical drawings or qualified knowledge at the labor level.

In this way, the choice of adobe brick as a base material for the entire construction was immediately considered a viable option due to the simple, economical, and sustainable design it incorporates. Moreover, its production frees the process from complex systems or heavy machinery independent of power networks. Combining water with raw earth, straw, and natural

4. About the importance of trees in the characterization of outdoor space, often assumed to be the first natural shelter and often assumed to be the "classroom" itself.

fibers allows all materials to be freely available to the population. In addition to its characteristic image and integration in the landscape, this material provides advantages for building comfort. Compared with the reed, the material used in most walls of vernacular and rural buildings in Mozambique, adobe brick offers greater security and stability to the built space, good acoustic behavior, and proper maintenance increases the time of useful life of the building. (Figure 2).

The sloping roof, a shed roof, rests on wooden beams that span the gap between the two master adobe brick walls. The roof is composed of two materials that perform two different functions: the zinc plate is waterproof and shades the spaces, and is covered by a vegetal covering (in reed or thatch) that works as thermal insulation and acoustic sink on rainy days.

The most permeable facades and where there is a greater incidence of sunlight are materialized by pivoting panels formed by a wooden frame filled with an interlacing of palm leaves, characteristic of the Thonga culture.⁵ In addition to being fundamental for the natural ventilation of the space, this strategy allows

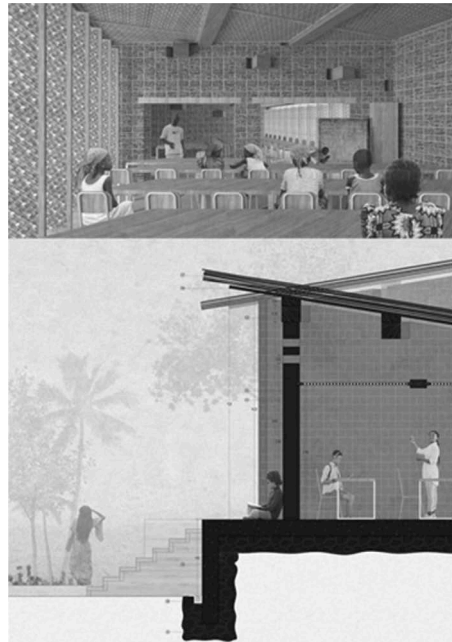


Figure 2. Constructive section and interior perspective of the classroom, by Sofia Outor, 2020.

5. This weaving technique is used to produce various bags and baskets that are currently sold throughout the country. The bags can have different dimensions and are usually woven in an apparent diagonal crisscross, using different palm leaves.

shaping the brightness of the interior environment, adjusting it to the nature of the different educational activities.

This option also asserts itself as an opportunity to honor and preserve vernacular weaving techniques, introducing, in a constructive component of architecture, a resource of Mozambican culture, valuing it, reinventing it, and perpetuating their knowledge for future generations. The panels are rotating, vertical pivoting, to allow a more significant entry of light without overheating the interior space, and they can be adjusted, one by one, by the users. They are constructively connected to the roof's wooden beams by a cylindrical element and lower wooden supports inserted in the concrete slab, allowing a 180-degree rotation and making the respective locking in place.

For constructive reasons associated with humidity control and infrastructure optimization, all buildings are based on platforms molded in concrete, which rise subtly from the ground by about 90 cm. Over the classrooms, spaces where the students and the teachers spend most of their time, a false ceiling is also introduced, using a constructive logic like the one used for the facade panels, to control the temperature of the interior spaces better, reducing the thermal radiation of the roofs and improving the control of upward air flows.

As mentioned before, bamboo is introduced in the project because it is light, flexible, but above all, because it is abundant and fast-growing, making it an extremely accessible material (Rodrigues, 2014). It is mainly found in tropical areas, but its adaptability allows using this material in different environments and contexts. Despite not being part of the Mozambican vernacular architecture collection (in the north of the country, it is possible to find some handicrafts with bamboo, but never in constructive elements), this material can be cultivated, and its physical and structural characteristics offer the community new knowledge and capabilities. Bamboo constructions also have levels of thermal comfort.

In the Ocuana school project, this material allowed us to introduce a second floor in the fourth module. Because its canes are light, they are used as the library floor, interconnected, and fixed to the wooden beams. To assume the aesthetics resulting from this new material, bamboo canes are also used to manufacture the partition walls of this new upper floor, positioned vertically and fixed to the floor through connections with bamboo ropes extend up to the wooden beams of the roof structure. Only introduced in the last phase of the construction of the school project, the new bamboo extent is harmoniously related to the adobe brick and wood, subtly bringing a language of innovation and modernity to the library space, where children can learn to pioneer their desires of future, apprehending the world in a different and innovative environment.

4 HOUSING AND RE-FOUNDATION URBAN STRATEGY FOR OCUANA

Designing in a different country implies understanding a new culture to avoid decontextualizing in the interventions. To better understand the Mozambican way of living, particularly in Inharrime, it was essential to experience the environment, talk to the people, understand their ethnicity, social and cultural backgrounds, listen to their wishes, and measure their economic capacities and technological vocations.

The informal dwelling present in the rural areas of Inharrime arises from an evolution of vernacular housing typologies (such as kraals or Swahili)⁶ trying to satisfy the demands of modern life, keeping in mind the local cultural tradition and habits

Much of the social and family experience takes place in the outside space. Activities such as cooking, washing, studying, dancing, singing are mainly carried out outdoors. It appears that there is open communication between the built space and the natural space. The house is often considered a mere shelter for the storage of family belongings and utensils. Families are big, between five and eight people, with little or no resources and heavily dependent on subsistence agriculture. The shelters, which they call houses, occupy small areas because life takes place outside, with people spending less than 50% of their working day inside buildings. They all sleep together in compartments with minimal dimensions, cook with firewood and charcoal and use a small building far away from the house to carry out basic hygiene needs.

The Mozambican rural dwelling thus incorporates separation of housing functions by different buildings; there is always the main building. However, in many cases, there are several smaller and independent annexes intended for specific functions such as: stand to sell products, warehouse to store tools or agricultural products, a dry latrine, or a pit outside the house.

It is, therefore, difficult to define a standard typology because the traditional dwellings are improvised and built, by the families themselves, usually with a clay and dirt floor, grass or thatched roof, and reed or wood stick walls. Presently, when walking around these environments, we find houses with *tabique* walls, others covered with palm leaves, some cement blocks, some built only with zinc sheets, and others with reused materials. There is a tremendous aesthetic variety due to self-construction and the opportunity offered by

6. Kraals or Swahili is the concept name assigned to define vernacular constructions, derived from enclosures located within a settlement or village in Southern Africa usually surrounded by a fence of bush branches, where these shelters are usually built with a mud wall in a circular shape.

pragmatic and circumstantial access to available materials. The enormous economic and material deficiencies originated several processes of great creativity in a multiplicity of constructive solutions.

In this context, in the dwelling modules of the project for Ocuana, it was decided to follow the same conceptual logic as the school, based on hexagonal aggregation, subdivided, in this case, into two aggregate sets: the first and generator of the rest of the design, the social unit, and the second the more intimate unit. (Figure 3).

With the same materials and the same constructive solution used at the school, there is a space for hygiene and food preparation in most social areas. The bathroom is only accessible from the outside to prevent contamination of the interior space of the rest of the house, reinventing and adapting to the Mozambican way of living, where the bathroom is always a separate building. Unlike the social unit, the intimate units are built with wooden walls and floors, using the light pivoting panels, and offer the inhabitant a small and private sleeping space that can be divided into two.

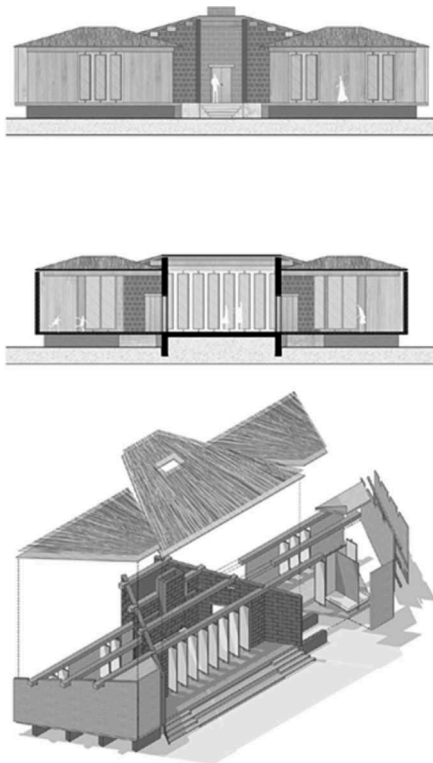


Figure 3. Drawings of the dwelling module, by Sofia Outor, 2020.

Thus, the dwelling module presents a possibility of evolution; its construction offers the possibility of being carried out in different phases and thus can follow the evolution of family structures. The first phase of construction, the most complex and demanding, corresponds to the building of the social unit where the spaces for hygiene and food preparation are concentrated and intended to have greater communication with the outside space. For this, a facade composed of vertical rotating panels (similar to those applied to school buildings) is implemented. The intimate blocks can be aggregated on each side of this primordial block and intend to offer the family a more contained, multipurpose space for refuge and retreat. Following the same constructive process used in the school buildings, the roof of the housing modules is also materialized using wood beams and zinc sheets, covered with a vegetable layer (thatch or reed) for acoustic insulation amortization.

In the absence of public water distribution services in most rural areas of Mozambique, and Inharime being an example of this situation, it is crucial to design supply systems for the housing modules that safeguard this essential service. In this way, a vertical tank is inserted in the housing module to store up to 250 liters of water. Positioned on the wall that separates the bathroom from the kitchen, this tank is placed on one of the wooden beams, and in the initial phase of the project, it will be filled manually, complementing the rainwater collection, but with the perspective of being integrated into a future system public water distribution and supply chain.

Basic sanitation is also one of the infrastructural problems in Mozambique, especially felt in rural areas (Vanormelingen, 2014), and in this context, the management of human waste, both for housing and for school, uses vernacular technology adapted from the dry toilet principle.⁷

Given that in the rural areas of Mozambique, open fires and charcoal are still used for cooking, a slow-burning oven/stove, built-in local clay, was designed to integrate the housing module. Many international NGOs promote projects in Mozambique and other African countries that aimed to teach the population techniques to build clay ovens and stoves with a chimney, preventing fumes from being trapped in the interior space of the dwelling. These slow-burning ovens can use as fuel, the bushes and branches from the cleaning of the land,

7. A dry toilet is an ecological toilet that can have different forms and receives human waste in a non-aqueous medium, thus dispensing drinking water, preventing the contamination of any element associated with the water cycle. Instead of flushing water, sawdust or any other vegetable shavings are used to add a carbon-rich content to nitrogen-rich human waste. In this way, excess moisture is absorbed, controlling the proliferation of unpleasant smells.

avoiding unnecessary cutting of trees, helping to promote the sustainable use of resources, and preserving the natural landscape.

Taking into consideration all these factors, a housing module was designed, responding to the essential requirements of the condition of living (sleeping, living, cleaning, and cooking), was enhanced by the local culture, adjusting its buildability to the available materials and its spatiality to the way of living in Ocuana.

In this way, the intention for an integrated occupation of the territory was formalized, empowering the local population based on the embryo project of the School, assumed as the starting point for the consolidation of a broader, better educated, more informed, more free community and with a greater capacity to qualify its built environment and above all its model of life.

5 CONCLUSION – A DESIRED URBANITY IN A CHANGING TERRITORY

The different systems of social relationships are a distinctive factor in characterizing African settlements. They are the differentiating origin of spontaneous and varied traditional architecture, rooted in tradition and ancestral cultural habits. Conscious of the importance of the outdoor space, between the buildings, in the housing settlements of the rural environment in Inhambane, the general urban plan of the project followed different lines to guide the process of occupation of the territory. These differ by adopting different models of aggregation of the same base housing models. In this way, the standard housing module was designed to be aggregated in three distinct ways, which are affirmed by the intensity of the coexistence relationship they establish with the rest of the “neighborhood,” in the way in which the outdoor space is generated and its relationship with the roads that serve them. (Figure 4)

In the first aggregation model, the spatial relationship formed between the housing model is more intimate and protective and, consequently, more closed to the surrounding public space. The second aggregation system derives from the first and is established by the composition of six housing modules aggregated in a hexagonal matrix design crossed by a public road. Finally, in the third mode of aggregation, it is possible to have public pedestrian crossings that subtly permeate the more private outer space, incorporating the flows of public crossing more inclusively and communally.

The five expansion axes depart from the school buildings site, representing different stages of the formation of the urban space that determine the logic of interconnection of the school equipment with the housing settlements is hoped to appear in that

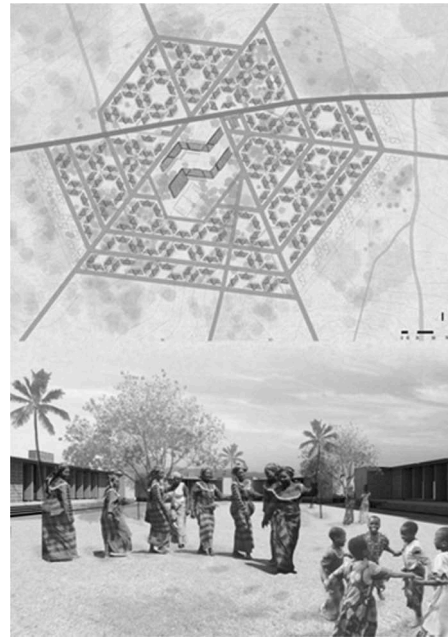


Figure 4. Proposal for the urban plan, by Sofia Outor, 2020.

territory. The layout of the secondary roads allows framing the three different modes of the housing modules aggregation, establishing, as we move away from the central space of the school, a more significant relationship of privacy between the street space and the exterior space of the houses.

The consolidation of the territory of Ocuana was assumed based on an elementary process, which starts from the creation of conditions for human development, based on the capacity to feed the mind and learn to live in the community. Finally, these aspects are condensed into the school concept and what it symbolizes in terms of human empowerment.

In this way, the new school in Ocuana proposed the transformation of local parameters of poverty, intending to achieve a better quality of life, settled in a more prosperous future, resulting from the education and sharing method.

Through the personal experience of the local culture, understanding their stories, memories, and desires, it was possible to understand and reinterpret many of the vernacular structures to better frame this project and help face the harsh challenges that the local community faces.

The participatory process in architecture emerged as the means to find the expected development. This process, combined with the emergence of new educational equipment, can serve as an example of the change required by Mozambican society. Sharing this approach makes it possible to highlight other ways of understanding architecture and the role of its agents in different contexts and cultures. In an increasingly

globalized world, it is essential to consider empathy as a value to deliberate problems and discover progress possibilities.

In this context, the most complex challenge is to be able to harmonize the need to innovate with the management of forces between the needs of environmental comfort and the functional requirements of school equipment, in a place marked by a huge lack of resources, both materials, and humans, but eager for change. Starting from the object's scale to embrace the scale of the territory allowed us to unlock the project at critical moments during the creative process. We found in the simplicity of the practices the justest and effective answer to the problems, where the methodology of the project followed the constructive tectonics and the essence of a Mozambican way of life, offering the stage for the emergence of a new urbanity.

Starting from the desire to shape new forms of intervention, this work reveals architecture as a human right, as a strategy capable of modifying realities, enhanced by the creativity that emerges from the moments of scarcity and liberates the spirit in the paths of creation.

ACKNOWLEDGMENT

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Temporary housing: Shelters for refugee camps

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ABSTRACT: Currently, migration flows caused by the conflicts in the Middle East and North Africa is a constant daily life that successively invades the European political, economic and social discussion that tries, most effectively and operatively, to respond to this growing problem. The migratory and humanitarian crisis has increased significantly over the past few years, reflecting that many people have lost their place to live and have risked everything, including sometimes their lives, in the search for a new place to live. As a result, there is an increasing need to organize hosting places, known as refugee camps, to shelter these populations temporarily, but which often become permanent homes.

The present approach sets out a reflection on this problematic, by reading the status of dwelling and its reinvention before the contingencies of mutability and the dynamics of the hosting places. As well as a study of design solutions aims to provide refugees with a shelter that allows them to rebuild their quality of life and recover a sense of belonging, restructuring their existential – mental, and emotional capacities. This action is supported by a project strategy based on a temporary, sustainable, and flexible architecture adapted to different intervention contexts.

Keywords: Inhabit, Shelter, Temporary architecture, Refugees, Sustainability

1 CONDITION OF TRANSITIONAL INHABITANTS

Transitioning implies an action of change, the traversing of a pathway. In the context of refugees, they move to feel safer and often to stay alive, with the conviction and hope that life will be better where they are going.

In the same way, housing, or living conditions, can also transit and reinvent themselves. Nowadays, fixed housing is elementary and essential to the human condition, but it was not always so. For example, before the First Agricultural Revolution¹, nomadism was the standard way of life. People fed only on what nature offered, hunting and fishing, and therefore needed to move to regions with better resources, following the cycles of nature. The change had a significant impact on the relationship between the inhabitants and their environment.

Human developments have allowed throughout the ages the stabilization of dwelling, provided in fixed and safe places that offer refuge, not only

physical, provided by the houses or places one inhabits, but above all a mental and emotional refuge that promotes the desired stability and balances the complete form of being.

Conflicts and wars lead to the disruption of public security services, food supplies, health care, education, and employment, causing the population to lose the stability they once knew. As a result, these people are forced to find better conditions to build a new life. Currently, war conflicts, religious persecution, environmental pressure, and hunger have generated multiple migratory flows humanitarian crises increasing on all continents. This phenomenon is notorious in Europe, with an obvious increase in these displacements being felt since 2015.

Without prospects for their lives and future, surviving amid insurmountable hardships, many people and families see escape as their only last option. Refugees subject themselves to journeys of many miles, often on foot, stripped of almost everything. They cross borders, rivers, and seas, often resorting to the help of organized groups dedicated to illegal immigration, putting their lives at risk in the desperate attempt to reach a place that will take them in. They dwell only on their condition of existence because, many times,

1. The Agricultural Revolution happened around 10,000 years b.C. when, during the Neolithic Period, nomadic communities settled in fertile regions along river banks.

that is all they have. Their goal is to reach new places that can offer them some hope in life.

Often these people are mistakenly confused with migrants. However, there are significant differences between refugees and migrants. Migration is understood as a voluntary process of crossing a border searching for better living conditions or economic opportunities. On the other hand, refugees have been forced to leave their home country or region due to circumstances that have radically disrupted their primary livelihood. As a result, they become internationally recognized as refugees and can access protection and assistance in countries that take them in an attempt to secure needs and provide long-term livelihood opportunities (Edwards, 2015).

In 2019, about 79.5 million people were forced to move globally, of which 26 million were refugees.² More than half of these refugees were from Syria, Afghanistan, and Sudan (South) fleeing seeking asylum. In light of this situation, the European Union, establishing a legal and moral obligation to protect those in need, has created the CEAS³ to benefit refugees and the European Union countries. The intention focuses on developing a standard policy for asylum, subsidiary, and temporary protection to grant an appropriate status to those in need of international protection in one of the member states.

When they leave their native country, refugees not only look for an escape from the physical place but, above all, a mental escape from what they have lived through and all they have lived and been through. In this sense, the importance of a new shelter that allows creating a new way of life that alleviates these past traumas will be a fundamental strategic element for any project implemented.

Human beings face different daily needs, which involve having or not having a quality of life, which, in addition, directly influence their motivation and level of achievement. Now, the inhabitant in transition does so precisely to achieve these parameters. The needs are divided into physiological (food, water, rest, health), security (to have a shelter and feel stable), social (to be included in a group), self-esteem and self-realization (to get a job), both of which have fundamental implications in the foundation of their autonomy.

Thus, the quality of life, which all transitional inhabitants seek, is rooted in the dignified attainment of primary living conditions. These conditions involve acquiring a place to live in an inclusive

place and a house with the essential elements that define it.

When refugees arrive in a new place, they bring different customs, traditions, routines, and ways of being. The cause of many conflicts arises from how the residents interact with these new inhabitants, integrate or reject them. In this context, architecture assumes a primary role and leading intermediary in articulating this context and a new condition of inhabiting (Pallasmaa, 2017).

The concept of dwelling is not restricted to the form of a house but to a whole universe in which one seeks personal satisfaction, the feeling of peace, freedom, and protection.

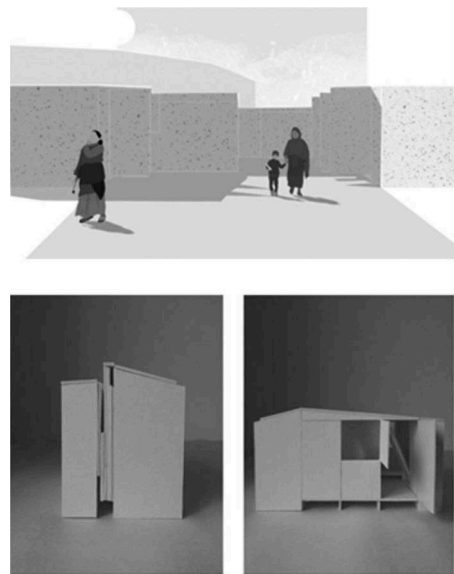


Figure 1. Proposed shelter in a temporary place, by Silvia Santos, 2021.

2 DWELLING IN CRISIS AND TEMPORARY ARCHITECTURE

The dwelling is assumed as the foundation of the existential condition of the human being, as Heidegger defines it, its fundamental feature (Heidegger, 1958). Effectively, to inhabit transcends the house as a physical spatial element and extends to all the spaces that the human being appropriates. Not all buildings are residential. However, all buildings include a broad sense of inhabiting. In this same sense, and according to Pallasmaa (2017), inhabit is assumed to reveal the ontological origins of architecture, mirroring the ability that human beings have to transform an insignificant space into a unique space, giving it the sense or place of home.

2. Data consulted from the United Nations High Commissioner for Refugees (UNHCR) - established in 1950, after World War II, to help millions of Europeans who fled or lost their homes, at the source: <https://www.acnur.org/portugues/dados-sobre-refugio/> (accessed 27.12.2020).

3. CEAS - Common European Asylum System, implemented since 1999.

The word “inhabit” derives from the sense of creating a habit, and habits are created and acquired individually, arising from the context in which people live, their culture, and the actions they practice. In this way, they create the identity that defines them, reflected in their daily lives and in constant interaction with what shelters them, which results in the reflection of their image in the context they inhabit. In other words, they imprint meaning to these contexts, which is reflected in actions, perceptions, and thoughts, thus contributing to a bond of relationships with the communities where they live.

In the context of inhabitants in transition and facing their living conditions in crisis, architecture plays a crucial role in designing their quality of life. The architectural elements will build the spaces for human beings to live in, allowing those looking for a new place to live to feel secure enough to start redesigning their lives.

When there is an appropriation of a place, a reciprocal connection between the space and the inhabitant is evident. Inhabiting acquires more meaning for those who have lost their way of life and find themselves in a life of waiting, as happens with refugees. Even if they are temporary, the conditions in which they come to live will dictate their future meaning. (Figure 1).

In its simplest and purest form, architecture began as shelter, and in a way, it is the basis of what we assume today as temporary architecture.⁴ The word temporary, in architecture, also means ephemeral, in essence referring us to its essence. However, the degree of temporality depends on the quality of the construction, the materiality, and several other factors that vary from its location and the climate in which it is inserted. The shelter is understood as a place of refuge, protection, or defense. An area of shelter involves guaranteeing a feeling of security, whether for a long or short period. Thus, temporary architecture is assumed to be part of the strategy to respond to emergencies and live during a crisis. Configured in the form of shelters, generally prefabricated and transportable, they can effectively be thought of to qualify as living spaces, valuing the welcome and the expression of those who are welcomed as proper living spaces and places for new homes.

4. In fact, human beings have used temporary architecture since the earliest times of their existence. They built according to their needs and the materials available. Only when man stopped being nomadic and started living in fixed places did the need to build bigger, more resistant and durable shelters arise, assuming architecture as more permanent.

3 HOSTING PLACES AND EMERGING URBANITY

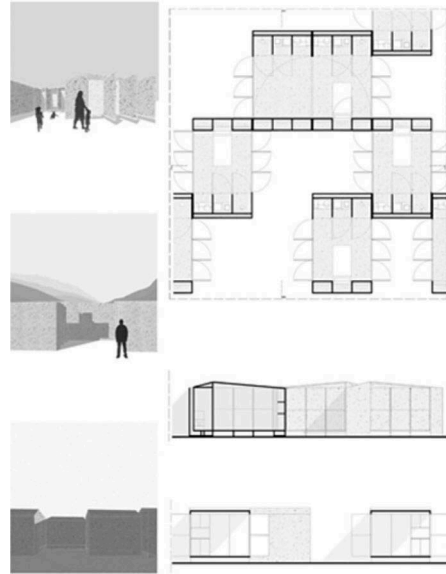


Figure 2. Hosting places – aggregation proposal, by Silvia Santos, 2021.

Architecture can be understood as a place that is attached to hospitality and the purpose of welcoming. It also provides places intending to generate new possibilities for relationships among different people, constituting an opportunity for aggregation, urbanity, and growth.

A *transitory place* is defined as a temporary dwelling and living sought by those who urgently need refuge. Effectively, people who have been forced to leave their country and are considered refugees seek out these places to rebuild their lives. In these places, the main event is effectively the reception in spaces that offer protection and shelter. (Figure 2).

Usually implemented with a stamp of purposeful, pre-programmed, and forced transitoriness, refugee camps are seen as temporary places. Creating them provides security, dignity, privacy, and support to generate identity and opportunity for those who live in them. However, we see that they generally lack salubrity, equipment, and qualified public and private spaces.

Although the architecture in refugee camps is designed to be occupied and used with a limit on time and people, it turns out that refugees stay much longer than initially established, in many cases, until the end of their lives.

The architecture present in a refugee camp should stimulate the refugee's mental and inner reconciliation with themselves and the factors that brought them to that situation. Generally, these people carry different, almost always interrupted life stories that need stable supports to be resumed and expanded in other future contexts (Bauman, 2004).

In this regard, these transitory places are contexts of emerging urbanity that lay the foundation for autonomous and future developments. Indeed, when inhabitants control their space, their urban life begins to go beyond material and infrastructural aspects, becoming a starting point for personal growth.

Currently, most existing refugee camps contain no spatial organization, which does not contribute to the requalification of human life. Although the refugee camp is a transitional place, it can become a permanent city. If it is designed with the principles that configure a city and its dwellings, such planning will improve refugees' quality of life.

The concept of public space and private space influences the way of life and its evolution. For example, private space is essential for family activities and public space for socializing, supporting urban life.

Cities are formed through structures. The structure is the basis of spatial organization. With refugee camps, humanitarian and emergency cities are created, whose basis for creation is human life.

The urban structure of a place is defined as the stage on which the different characters, the people who inhabit it, perform various acts, through the succession of encounters produced by human, individual, and hospitality relationships in which architecture works as a favorable scenario for the daily retelling of new stories.

Thus, cities are formed by a composition of several places with diverse experiences and characteristics. A different way of living is born when a place is added, absorbing its attributes while composing and adding meaning to the pre-existing ones.

The city gives its citizens and those who seek it permission to participate in their daily lives. It also elevates empathy and engages the emotions of those who inhabit it. Thus, it becomes inevitable that the city resides in every human being, providing temporary and permanent places. In this sense, these new welcoming places should be implemented: as promoters of new emerging urbanities.

4 SHELTERS FOR SUSTAINABLE HOUSING

In this context, a proposal for a housing shelter was developed (Figure 3). The model presented encompasses a creative process, initiated at the shelter scale and extended to the organization scale of the refugee camps, seen as cities in different contexts. The strategy between scales was effectively based on a conceptual methodology (Louro, 2017). The

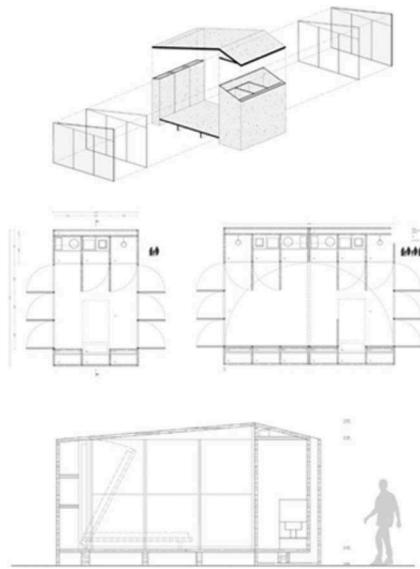


Figure 3. Shelters for housing – “kit house” model, by Sílvia Santos, 2021.

relationship between simple shapes, minimal dimensions, and adaptability generated the conceptual idea for the project. This concept imposes an intention to generate a shelter as a module kit with all the essential utensils for its use, making it possible to increase the independence of the shelter and, in turn, of the people who use it. The vital issue of transportation, which involves the weight and occupation of space, interfered directly in designing the shelter's architecture, the choice of material, and how it was built.

Based on the aspects discussed, the current project is composed of two volumes, both formed by three modules that, when combined, build the shelter. The larger volume contains the modules for the meal preparation area, the sanitary installation, and the shower. In the smaller volume, each module incorporates a bed and a personal storage space. In addition, the shelter walls are formed by two sheets of independent panels, each divided into modules of three, with different thicknesses and textures, that allow the shelter to relate to the outside in different ways, appropriate to the climate and needs present on site. The prototype shelter was designed for three persons. With nine sqm between the two volumes, the empty space is intended to provide a place for refugees to live, eat, and sleep. Furthermore, because of the large number of refugee families in the camps, the shelter offers the chance to be attached to another one. Thus, they form a more extensive “kit house” that can accommodate six people, family members, or groups of young people who arrive alone in the refugee camps.

Prefabrication was the method chosen to create the proposed shelter. This procedure will ease the quantity of series production and subsequent transportation of the shelters because the same construction systems are created for all the shelters. In order to occupy as little space as possible and be able to transport as many shelters as possible, the shelter sidewalls, roof, and floor can be closed by retraction, and the volumes are joined together. This gives the shelter a smaller and more compact shape (approximately 2x2.6 meters), making it easier to transport, and about four shelters can be transported in a standard container. Furthermore, when the shelters arrive on-site to form refugee camps, their construction involves a sequence of simple steps that can be carried out by just two people, making assembly much easier and faster. Regarding the materiality of the shelters, the proposal aimed to encompass sustainable strategies for the use of water, energy, and materiality.

Thus, the sloping roof of the infrastructure volume makes it possible to collect rainwater into a tank with a capacity of approximately 200 liters connected to a filtering system that allows it to be reused, in addition to the possibility of connection to local supply systems. Photovoltaic cells are also incorporated into the roof of this volume to collect solar energy stored in batteries. This makes it possible to use this energy later on to heat water, run an electric stove, and provide light to the spaces. As for the shelter's materiality, following sustainability, efficiency, and lightness requirements. Nowadays, the most abundant rubbish in the oceans is plastic⁵, which takes many years to decompose - 10 to 20 years for plastic bags, 50 years for glasses, and 450 years for plastic bottles (Loctier, 2020), making this material an abundant and potentially raw material. In this sense, for the construction of the "kit house," it was chosen as materiality, which is light and resistant to various climates. It is idealized that for this shelter, the method of mechanical recycling of plastic packaging is used to configure prefabricated panels that configure the entire structure of the shelter. This option also generates flexible, light, and resistant shelters that can be differentiated in visual terms and allow for different forms of appropriation and configuration depending on the inhabitants who will occupy them.

5. In architecture, plastic can be considered a raw material for building. It can either be transformed to compose a new form and use or it can serve the production of plastic objects used in building. It has favorable characteristics and fundamental properties to be a good building material, such as being a good thermal insulator, easy to mold, durable, waterproof, hygienic and aseptic.

5 INTERVENTION CONTEXTS: CHIOS, GEVGELIJA, AND SLAVONSKI BROD

The proposed shelter project intends to guarantee an adaptation to any context, topography, and climate, and the urban organization model will always depend on the place where it is implemented.

A sufficiently versatile shelter allows its organization and aggregation to be adjustable according to the place. This factor becomes crucial as refugee camps are constantly growing, challenging to delimit and localize in the face of the constant influx.

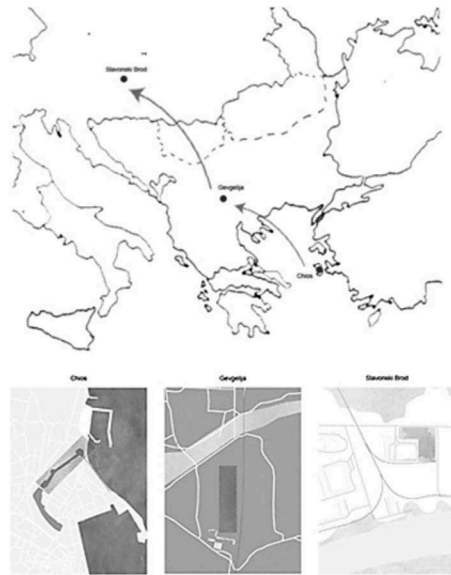


Figure 4. Deployment contexts, by Sílvia Santos, 2021.

In 2016, UNHCR and UNICEF,⁶ intending to increase protection, established a project to set up twenty special relief and reception centers, the Blue Dot, organized along the most heavily used migration route in Europe to support refugee children and families in transition. The migration route is connected by rail from Athens to northern Europe.

Some of these places already have hosting areas or refugee camps. In addition, some of these already have reception areas or refugee camps. Among these twenty places, three were selected to apply the designed shelter model - Chios (Greece), Gevgelija (Macedonia), and Slavonski Brod (Croatia) (Figure 4), which present different characteristics from each other, allowing to test the various ways of aggregation, organization, and use of the shelter.

6. UNHCR - United Nations High Commissioner for Refugees and UNICEF - United Nations Children's Fund.

As mentioned before, in cities, urban structures are formed through the relationship between the filled spaces, buildings, and the empty spaces, the urban public use areas, creating harmony and balance of helpful space. Since refugee camps can become permanent cities, the same methodology was adopted to elaborate the examples of refugee camps in these three contexts.

The two shelter volumes serve as a guide in the organization strategy of the proposed refugee camps, collaborating to their integration in the site. Furthermore, the simultaneous combination of individual shelters and combined shelters, which form a large shelter, generates full and empty spaces, creating outdoor areas for different public and social spaces.

Chios, a tourist island in Greece located in the Aegean Sea, receives an average of 5,000 refugees,⁷ arriving by sea in small boats. Next to the coast, a wall surrounds a small town, and outside, next to a small cluster of houses, refugees usually set up their tents or occupy the shelters made available to them.

In this case, the approach proposed for the urban organization of the shelters took into consideration the site's specific characteristics, the existing habitable urban structure around it, the proximity to the sea, and the climate with high temperatures. In this way, the sidewalls of the shelter, with several possibilities of closure, can be used more openly, allowing more ventilation between the interior and the exterior, allowing a more balanced and milder temperature in the living spaces.

In another context, Gevgelija, located in Macedonia, near the border with Greece and surrounded by mountains, the choice was different. Thousands of refugees arrive there every day, and on average, about 2000 inhabitants stay there.⁸ When they arrive here, the refugees aim to take the train to continue their journey to Northern Europe. While waiting their turn, they receive support from the UNHCR or often sleep on the street in makeshift beds and tents.

In this context, the urban organization proposal for this place considered the proximity to the train station and the existing support tents. The shelters, following the same logic previously established, are being aggregated along with the empty land. The climate in Macedonia is considered mild, which allows for two ways of using the shelter, depending on the season - one more open to creating more ventilation when temperatures are high, and the other more closed to protect from the cold during the winter season.

In Slavonski Brod in Croatia, an average of more than a thousand refugees passes through each day.

Some remain there, sheltered by the tents they carry with them, waiting for the next train. Others continue their journey. The space available for the camp is, as in Gevgelija, next to the train line and station. In this country, during the winter, temperatures are very low, and snow often occurs.

The urban concept adopted for this place integrates the shelter project that we propose, considering the limited space, the proximity of the train line, and the already existing tents for the provision of support. Furthermore, to combat the negative characteristics of the local climate, the shelter house kit can be used with the side panels permanently closed and using solar power to generate and accumulate energy to create a more comfortable and warm interior space.

For cold locations like Slavonski Brod, the shelter features a sustainable system that allows ice to be collected, just like rainwater. This strategy uses solar energy in the clean water tank, where the snow is thawed to be reused as filtered liquid water following the same methodology.

6 CONCLUDING REMARKS

The approach presented here is both a reflection and a reasonable response to several questions that arose after perceiving a problem that persists and is expected to worsen. The initial goal was to help understand how architecture can be seen as a valuable tool to change the strategy of welcoming refugees.

The analysis made on what motivates refugees to leave their native country and what they seek helped to understand the value and impact that a shelter and a refugee camp have on the foundation of their lives. Also, the reflection on dwelling and its evolution brought to light new ways of substantiating architecture. Finally, analyzing and observing the origins of temporary architecture and applying it in refugee camps helped to understand the concepts to be implemented in the architecture to be conceived for these places.

The study of current refugee camps made it possible to realize the problems that exist and that, despite being places thought of as transitory, they often become permanent. However, the analysis of some examples shows that these camps may be (re)organized differently, based on an architectural strategy that gives them a different future perspective.

In this sense, and as an operative strategy, we proposed an adaptable and flexible shelter. Its configuration allows for better transportation and production in larger quantities. Also, the two volumes and the space between them make it possible to meet basic daily needs and develop a new way of living. Furthermore, the research and analysis on sustainability in architecture helped the shelter - "kit house" - incorporate sustainable strategies in its use. In this context, considering its adapted characteristics, plastic was the material chosen for the construction of the shelter.

7. Data consulted at the source: <https://www.dw.com/pt-br/o-drama-dos-refugiados-na-maced%C3%B4nia/a-18664991> (accessed 04.01.2021).

8. Data consulted at the source: <https://pt.euronews.com/2020/01/23/tensao-com-campos-de-refugiados-sobrelotados> (accessed 04.01.2021).

The adaptation of the project to three different contexts, revealing particular characteristics in each one, allowed us to reveal different urban organizations and multiple ways of using the shelter, proving its ability to adjust to different places.

Therefore, this reflection arose from the will to reinvent how architecture's role is looked at and interpreted in the context of humanitarian emergencies. We have tried to show how it can serve as a seed for hope, protection for the reconstruction of a new life, grounding for being, and above all, it permits the (re) configuration of desperate human beings' full emotional and mental capacities. (Santos, 2021)

ACKNOWLEDGMENT

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The appropriation of the indigenous architecture in northern Brazilian Amazon for the architectural design process with bioclimatic strategies

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ABSTRACT: When analyzing the indigenous constructions, it is possible to observe the different solutions to inhabit. The vernacular architecture is knowledgeable of construction techniques and solutions that dialogue with extreme sensitivity with the surroundings - the climate, the soil, and the topography are fully suited to the site. The paper aims to comprehend the indigenous peoples' traditional housing in the northern Brazilian Amazon as a reference to the elaboration process of the architectural project. In this regard, the study is based on the indigenous vernacular architecture concepts, combined with bioclimatic strategies in a humid equatorial climate, analyzing the structure and shape of these houses. As a work methodology, qualitative and exploratory research was used to obtain bibliographic, projectable, and bioclimatic references. The research concluded that the indigenous houses located in the north of the Brazilian Amazon result from the materials found in the region, and the unique techniques contribute to bioclimatic solutions for an architectural project compatible with the local climate.

Keywords: Brazilian Amazon, Vernacular architecture, Humid equatorial climate, Bioclimatic strategies, Indigenous housing

1 INDIGENOUS HOUSING AND ITS BIOCLIMATIC STRATEGIES

Historically, the indigenous dwellings and villages in the northern Brazilian Amazon are not understood as constructive models of comfort, beauty, and tradition. It is as if there was no space for the architectural manifestations of these peoples in the theory and history of Brazilian architecture due to prejudice and discrimination perpetuated since the colonization of the territory. Indigenous housing is the root of architecture and has a lot to teach professionals and students in the area.

The study of the typologies of indigenous housing in the extreme north of the Brazilian Amazon results from an eagerness to comprehend, based on bioclimatic concepts, their constructive solutions to affirm this architecture as an influence for the architectural design process in the region.

According to Olgyay (1998), the bioclimatic approach consists of elaborating the project of a building following the forces of nature, not against them. It is essential to use the climatic potentialities to give a comfortable environment for humans to dwell in.

Its main characteristics are the adaptation of the built environment to the climate and human needs, rationalization of energy consumption, environment

comfort provided by the optimized use of renewable resources. (Aroztegui, 1999).

When analyzing the diversity of indigenous housing, it is possible to perceive sustainable solutions that can be used as a parameter for different projects. These traditional buildings dialogue with bioclimatic concepts in using local materials to design houses adapted to the place, dialoguing with extreme sensitivity to the surrounding conditions. The knowledge of the climatic potential of the place influences and results in projects that prove that the term "advanced technology" can be quite relative.

The indigenous housing is not standardized but reflects the organization of each ethnic group, its different cultural and social values, and the surroundings in which they are located. These constructions, however, are constantly referred to with negative terms and ideas, which disqualify constructions that were culturally built throughout history to improve the experience of indigenous people with space and ensure the performance of religious activities, dances, and rituals.

In the extreme north of the Brazilian Amazon, between the state of Amapá and northern Pará, there are eight demarcated indigenous lands - seven of which are homologated - where ten indigenous groups are currently distributed (Figure 1).



Figure 1. Location map of the Indigenous Lands in the northern Brazilian Amazon. Source: elaborated by the author, 2021.

The houses are located in a region of humid equatorial climate, around latitude 0°, with great solar irradiance due to the proximity to the equator, where high temperatures occur throughout the year.

2 OBJECTIVE

The objective is to analyze the indigenous architecture and to appropriate bioclimatic concepts for the architectural project of a center for the Housing and support of indigenous people from the north of the Brazilian Amazon in Macapá city, aiming to supply the architectural deficits found in the structure of the current Indigenous Health Support Housing (CASAI) located in the city.

Although there are no studies published about it so far, the indigenous houses from the northern Brazilian Amazon present visible singularity compared to indigenous architectures from other areas of Brazil. Due to this, it was sought to understand the shape and constructive techniques to identify common and divergent issues between the multiple cultures in the north of the Brazilian Amazon.

3 METHODOLOGY

This section outlines the methods followed during the research to propose more grounded discussions about indigenous culture, bioclimatic strategies for the humid equatorial climate, experiences, and specific needs of the different ethnicities living in the state of Amapá and northern Pará.

In this regard, qualitative and exploratory research is used as a methodological approach, at first, and the Post-Occupancy Evaluation, which could not be applied in its entirety due to the pandemic scenario and social isolation due to the Sars-Cov-2 virus (Covid-19). Because of this, field research focused on the theme that indigenous peoples would be

unfeasible since they are part of the risk group as they do not have a traditional urban life.

According to Oliveira et al. (2020), a high percentage of the indigenous population can be impacted due to the high transmissibility of the disease, social vulnerability of isolated populations, and limitations related to medical assistance and logistics of transporting the sick.

For these reasons, any contact would represent a significant risk to the integrity of this population, with social distance being the best way to protect them, which will be adopted during this study.

Thus, as an alternative to the current circumstances, the research will focus on an exploratory character based on the Post-Occupancy Evaluation method guidelines through recorded interviews, documentary analysis, and bibliographic and project review.

4 THE CONSTRUCTION PROCESS OF INDIGENOUS HOUSING IN NORTHERN BRAZILIAN AMAZON

The State of Amapá was the first to officially demarcate all indigenous territories, allocated in two large areas representing 8.6% of the state territory where the indigenous Galibi, Karipuna, Palikur, and Galibi Marworno, and the Wajãpi groups live. These peoples have their ancient histories, cultures, beliefs, and way of building their homes and villages, directly related to the space in which they live - from the surroundings to the climate and raw materials (Gallois & Grupioni, 2003).

One of the three indigenous lands located in the north of the state of Pará is the Indigenous Territory of Parque do Tumucumaque, which is part of the largest National Park in Brazil, in addition to the Indigenous Territories Zo'e and Rio Paru D'este. The Aparai, Wayana, Kaxuyana, Tiriyó, and Zo'e ethnic groups live in these lands, the last one being the most isolated group among those studied (Brazil, 2009).

Among the indigenous peoples studied in the research, some stand out for their housing and socio-spatial organizations. In Amapá, the Wajãpi are highlighted for their architecture and graphic art. The Wajãpi villages have no pattern. The dwellings are random along lakes, rivers, or fields, with a square called Okara, where meetings of the communities and rituals are held (Gallois, 1983).

The traditional house of the Wajãpi, oka, is characterized as a single-family home where between five and seven people live in, a number that may be higher depending on the daughters' marriage, as the wife's parents' house must also be the young couple's for a period. After the first child, the couple usually lives in a house next to where they lived. The layout of buildings in the villages takes shape according to these kinship traditions.

In addition to the house, there is also in the traditional constructions of each Wajãpi family the ‘Tapiri,’ or kitchen house, access to the garden, and a bathing and water withdrawal point. Each house has an individual patio, usually arranged in accordance with the central square, where meetings and rituals are held.

There are two traditional types of Wajãpi houses: Tapiri is the most rudimentary construction, built for temporary occupation, such as during trips through the forest, to shelter a visiting family, and also to welcome a mother and her newborn son. These buildings are also used as kitchens, *oka-wu*, near permanent houses, and most of the time, they have no walls (Gallois, 1983).

Permanent housing is the second type of housing, and it has a better finish on the structure. There are two types of permanent housing: *ywu’o* houses, which are single-story, and Jura (Figure 2), a more rudimentary structure and temporary character built on stilts that can reach more than two meters in height. The access to a Jura house is made by a ladder carved from a tree trunk, and the gable roof is made of ubim leaves and black straw. In general, the upper part is used as a bedroom, while the lower part of the house is used as a living area.

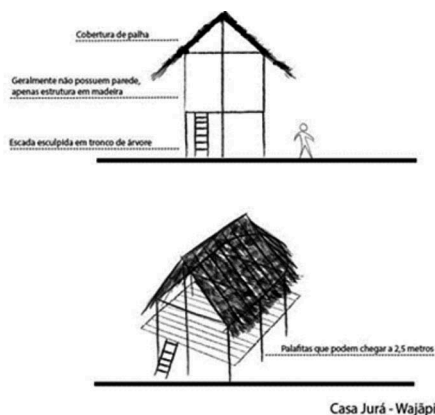


Figure 2. Sketches of traditional Wajãpi housing. Source: elaborated by the author, 2021.

The Wayana and Aparai ethnic groups, who live in the north of the state of Pará, are divided into several villages located on the banks of the Paru de Leste River, in the indigenous lands, Parque do Tumucumaque and Rio Paru D ‘Este. Even with different cultural characteristics, these indigenous peoples have lived in the same villages for at least one hundred years, sharing experiences, traditions, and even marital relationships.

The traditional typology of the Wayana and Aparai houses consist of three distinct types: the

Tahkuekemy type is an oval one-story house with semi-open or closed *paxiúba* floor and walls, covered with ubim and bacaba leaves; the Tyrakamano type is a one-story house with an oval structure without a floor, all closed to the floor and the roof also covered with ubim and bacaba leaves; the Tymanakemy type is an oval structure with two floors.

The Tiriyós, who also live in the north of Pará, settle in a region according to the decision of the *pataentu*, who would be the “owner of the place,” for having chosen the place and gathered a set of relatives to inhabit it. This place of residence is known as *pata*, which is equivalent to the village. After that, the place becomes the socio-spatial unit of this group. In general, they consist of a single or a set of residences, in which a couple lives with their unmarried children or newly married. The layout of these residences, known as *pakoro*, varies according to the number of inhabitants of the place, but in general, it is arranged around the space called *anna*, a type of public square.

The traditional typology of Tiriyós houses is quite diverse because, for each activity carried out within the village, there is a specific house to meet this need. Activities such as meetings, making tools, housing for single Indians, and storage demand different construction forms and proper names.

Many of the constructions follow a similar inverted double U structure, in which a molding technique with thin trunks is used to keep the structure rounded. The woods chosen for the construction are typical of the region: *acapu*, *sapupira*, and *paxiúba* are examples, while on the roof cover, the most used materials are ubim, murumuru, inajá, and bacaba leaves (Grupioni, 2010).

In indigenous houses, it is possible to identify design solutions traditionally applied and which today are commonly practiced by contemporary architecture, such as integrated environments, high ceilings, in addition to the use of sustainable materials (Portocarrero, 2006). Although the houses have their own identity according to the experience of each ethnic group, sustainability is a common practice among these communities.

According to Machado, Ribas & Oliveira (1986), solar radiation and temperature, rain and humidity, and winds are the fundamental factors that must be concerned about human wellbeing and the housing design process. By the items studied, it is possible to identify straw and wood as the primary materials used in these houses, both because of the abundance in the place and the excellent results related to environmental comfort.

Straw, generally used for roofing, is a renewable material and well used for shading techniques and helps with ventilation and lowering the internal temperature of houses. On the other hand, wood is mainly used in the houses’ structure, which usually has stilt structures for protection from possible flooding.

Based on the study of the typologies of indigenous housing in the extreme north of the Brazilian Amazon, the sketches in Figure 3 represent the typologies identified in each indigenous peoples that inhabit the region. The sketches were produced with inspiration from Johan van Lengen’s work, *The Architecture of the Amazonian Indians*.

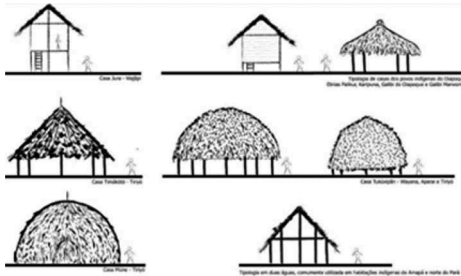


Figure 3. Sketches of the indigenous architecture from the northern Brazilian Amazon. Source: elaborated by the author, 2021.

The sketches feature straw roofs and wooden structures, but the aesthetics and shape vary according to ethnicity. It is possible to identify several types of roofs, some more oval, structures on stilts, and even structures in straw from the highest point to the ground floor that allow the constant exchange of air inside the houses. However, the model commonly found in villages of the ten ethnic groups studied is the stilt house with a gable roof.

To elaborate on an architectural project of a center for the Housing and support of indigenous people from the northern Brazilian Amazon, it is essential to study the cultural aspects and constructive methods of each people who will use the space. Therefore, from the perspective of vernacular architecture and bioclimatic strategies, the project will propose an architecture that embraces the shapes and technologies used by the indigenous people themselves to build their homes.

The proposal and concept for the architectural project took as a starting point the main aim of the project: caring and welcoming. Thus, wellbeing and adequate Housing are the basis for all design decisions, from studying the space to choosing materials.

In the project, there are ten houses to host the indigenous people from the surroundings. The buildings are arranged so that natural ventilation runs through the entire environment as air corridors. This is also a result of the building’s orientation and the openings that allow for natural cross ventilation: balconies, which are covered and ventilated spaces, and a gable roof with openings that provide a chimney effect and cooling the attic (Figure 4).

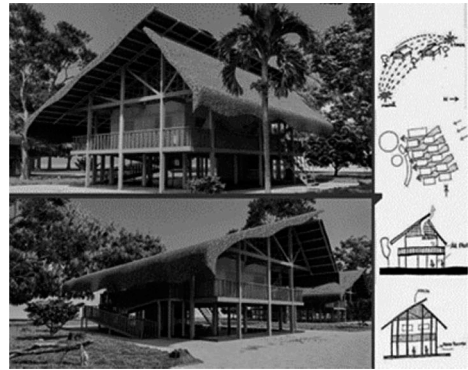


Figure 4. The preliminary proposal of the Center for Housing and Support of Indigenous People from Brazilian north Amazon. Source: elaborated by the author, 2021.

Air circulation was improved by vertical and horizontal cross ventilation, from the opening in the gable roof, from the frames installed on the side façades, and from the ceiling height.

The materiality used in the design of the buildings follows the studies about indigenous houses and bioclimatic. Thus, the materials used were all local and renewable: wood, bamboo, and straw predominate throughout the architectural design.

5 FINAL CONSIDERATIONS

The process of appropriating indigenous architecture demonstrates that for a project focused on this theme, it is essential to let go of any stereotype and prejudice related to indigenous architectural manifestations and to understand the different strategies that are used in indigenous houses that can be influential for the process of architectural design combined with bioclimatic. There is no “Indian house,” a standard form to be replicated, but a plurality of placements, materialities, techniques, and needs unique to each ethnic group and represent years of tradition and learning.

The work has two important design bases: bioclimatic concepts and indigenous architecture. The main bioclimatic strategies adopted in the project are based on taking advantage of the region’s climatic potential to better welcome and provide human comfort.

The accommodation roof features shading solutions to protect the building by limiting direct sunlight and keeping out the rain, such as large overhangs and the building orientation. The openings in the roof ridge and the gable provide the outlet for hot air and, consequently, the cooling of the attic. The various strategies adopted for this region are mainly regarding shading, ventilation, natural light, and vegetation and justify the choice of wood and straw as the predominant materials of the project.

The proposal includes functional and adequate spaces for the harmonious coexistence of ten ethnic groups in a shared space, where each ethnicity can maintain its traditions and beliefs. The indigenous housing from the northern Brazilian Amazon has its peculiarities and beauties, which say a lot about the experience of their residents.

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Play and space: Childhood nostalgia as a creative process

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ABSTRACT: The game represents a moment of fundamental importance in the evolution of a child. Normally one is led to think that the realm of playfulness is closely linked to childhood, to which an emotional state such as happiness is directly associated. In this text, starting from the analysis of the complex universe of the game, we will try to identify characteristics and mechanisms associated with a playful moment: from the definition of the playful object (toy) to the definition of the place where it takes place. Starting from the place and “place of play,” we will try to analyze the relationship that some representatives of the world of architecture (Aldo Rossi) and plastic arts (Enzo Mari, Carsten Höller) have built with the world of childhood and the playful world. In their case, we will ask ourselves how and to what extent do they influence the creative process, childhood memories. We will try to analyze, through the examples proposed, how the approach to play changes as we grow up. We will question whether architecture, design, or art can be a moment of playful experience.

Keywords: Nostalgia, Childhood, Aldo Rossi, Enzo Mari, Carsten Höller

1 THE GAME IS A GIFT FROM NATURE

If we were to ask ourselves about the nature of the game, we would probably have to go beyond the simple concept of it belonging to a cultural phenomenon. The game is older than culture because the latter presupposes a human coexistence. The game can also be recognized in the animal world, so it is not only the prerogative of human beings. (Huizinga, 2002, p. 3)

The game is a function that preserves a sense, a characteristic that throws it out of the purely biological world. In an oscillating identification between the spiritual and the instinctive realms, it is, in fact, something that transcends the material realm. However much we may struggle to find a full and comforting definition, the question that remains open is: what determines the game’s intensity, what causes the pleasure of playing? As Huizinga states, the game’s existence is not linked to any degree of civilization, to any conception of life. Every thinking being can represent themselves without mediation in the reality of playing as something defined. The game is not deniable; we can deny almost all abstractions: the game no. Its essence is not material but comparable to the spirit. It belongs to the imagined world that humans create to keep company with the world of nature.

The most common syllogism that appears to define the play is that it is opposed to seriousness. But this identification of play=non-seriousness

falters before the consideration that play can be extremely serious. On the other hand, as Huizinga continues, we find other categories of life classified as non-serious but do not correspond to the game. See, for example, laughter, which is opposed to seriousness but is not necessarily linked to play. The greatest players or the children themselves play with such seriousness that they do not hint at a smile throughout the game.

Even a comedy is opposed to the serious, but it is not certain that comedies have a relationship with the game. If we adjective a farce or a comedy as laughable, we do it for content reasons, not for their playful quality. The comedy is closer to madness, a condition that does not belong to the game, that is not crazy related. Therefore, the more we try to separate the game from other apparently similar manifestations of life, the more we create an independence that forces us to treat it autonomously and rigorously.

Every moment of the game is a moment that takes place in total freedom. One plays because one likes it and not because one is obliged to. This is the first condition of its existence. Immediately followed by the second condition: the game is part of a sphere that is not “real” life. Pretending and make-believe are acts that distance the child from ordinary life, keeping him/her perfectly aware of this estrangement. The child knows very well that he/she is pretending and, alongside whoever is willing to accept the rules, temporarily enters this pretense.

The temporary fiction or the joke, however, does not exclude seriousness. (Huizinga, 2002, p. 13) This distancing from reality leads to limited space and time. The presence of these limits makes the moment of the game an event in itself. So when it begins, it takes place as a finite activity, in which movements, alternations, intrigues, shifts are allowed. When it ends, all these activities are over. But when it does end, it opens up to the possibility of reiteration, which makes it immediately, and only then, a cultural phenomenon because it can be repeated and handed down. As Huizinga himself points out, in almost all of the most advanced game forms, you can find the elements of recovery, refrain, and a change of turn.

Even more evident is its limitation in space. Each game moves in an area whose limits are clear and defined in advance to the moment of the playful action. This characteristic brings us once again to a spiritual sphere: the rite. Defining space with an identifiable sign is a founding and sacred gesture. The board game, the cardboard house, the magic circle, the temple, the theatrical and cinematographic scene all have in common a clear spatial delimitation, which separates the world of those who know the rules and the world of those who must learn them if they want to participate.

The platonic interpretation of the game tells us how all young creatures could not keep their bodies and voices at rest: they have to jump, dance, and make sounds of joy. Unlike animals, humans are offered the possibility by the gods to distinguish rhythm and harmony, a faculty that accompanies the dances. So the relationship between music and play is immediate. In the Greek language, the word game (*Paidia*) is associated with the meaning of frivolity, childish play. The higher forms of meaning associated with the game were expressed by the word *agôn*, which means contest; *scholazein* - to pass the time; *diagoge* - spending. These meanings are all brought together later in the Latin expression *ludus*. (Huizinga, 2002, p. 188)

In Plato, we read that a thing that contains neither usefulness, nor truth, nor value, and does not produce harmful effects, must be judged according to the grace it possesses and according to the pleasure it produces. Such a pleasure that involves neither harm nor utility is the game *paidia*. Therefore, pleasure is associated with playing and, according to the definition of *paidia*, a state of drunkenness and joy. According to Greek mythology, the gods gave the muses in their custody some creative faculties. From these, however, they excluded the figurative arts. The figurative arts were assigned to Hephaestus and Athena Ergane. Therefore, they did not have the mean value that poetry and music, for example, had.

The substantial difference between the arts such as poetry and music and the plastic arts lies in the absence of the playful aspect of the latter. Figurative

art, due to its substance, cannot “play.” The Painter, the architect, the sculptor fix their creative impulse in the material, transcend their idea in immanence. Their creation is visible and lasts over time; their task is a gesture of responsibility and an impression in matter’s gravity. The game is foreign to this process. Therefore, according to this interpretation, reported by Huizinga, the production of figurative art takes place outside the playful world.

In the next paragraphs, we will try to refute this interpretation, demonstrating not only that the figurative arts can transport us to childhood but allow us to experience the playful moment in which disenchantment and joy are mixed.

2 REGRESSION AND *LUDIBRIUM*: ALDO ROSSI

As Rossi states, logical thought is expressed in words and is addressed externally as discourse. The analogical thought, imaginary and mute, is not a discourse but rather a meditation on a material of the past. (Rossi, 1975)

To describe the place where the work of Aldo Rossi (1931 - 1997) is located, Rafael Moneo talks about “Knowing and feeling.” This means that the emotional aspect must be considered an integral part of his search for knowledge. (Moneo, 2004)

The autobiographical constant in Rossi’s work must be contextualized in an era, the second Italian post-war period, when there was a tendency to use memory in the creative process. In the case of Aldo Rossi, this memory takes on silent characters. As Tafuri states, Rossi’s *mémoire* is heir to the overflowing autobiography of Italian culture in the 1950s; but to the opulence of Gadda’s tales, it prefers an archaic silence (Tafuri, 1986, p. 169)

After a first phase in which the rational construction of the architectural event is an essential and indispensable prerogative, Rossi abandons himself to the service of feelings. The feelings provoked by the sediments of personal memory lead him to a meta-project architecture, more and more full of stratifications, analogies, and superimpositions. (Mazzeri, 2016)

He transforms the horizontal sense of architecture, given by the appropriative gesture of space, into a vertical sense, which leads him on an exploratory journey of his biographical time. His drawings begin to manifest themselves as small temporal miracles, in which it is difficult to distinguish the before, the after, the where, and above all, the reason of each sign. This analogical structure causes inevitable disorientation for those who seek a full meaning or seek a comforting identification of the sign with the meaning. The forms appear to mean something else, something that can only be guessed by accompanying the stories that he entrusts to undated pages such as *L'Autobiografia scientifica* (Rossi, 1990)

The forms in his drawn stories, while continuing in their geometric exactness, begin to mean something else in a game of semantic transposition. The four-glazed window, a formal lemma present in his design vocabulary, becomes an evocation of an era such as the Renaissance. A whole world of forms seems to set out in search of new semantic places; an army of columns, towers, corridors will accompany us no longer in the logic of its projects but in its analogical thought. And then every form is a pretext, analogy, quotation. (Mazzeri, 2016)

These ancient forms with a new function lead us mainly to a single place of memory: that of childhood. In the autobiography, childhood memories come up like bubbles of air, propelled by a necessary reconciliation with what has been. And if the memories transpire in Rossi's written pages, the toys designed and then built appear in his world of signs. Its playful universe is so rich that it can speak of a real phenomenology of the toy.

Aldo Rossi is not the first architect who uses the playful tool, the toy, as the beginning of the design genesis. We know the relationship that links the design experiences of the Prairie Houses with Froebel's games for Frank L. Wright. (Tafari & Dal Co, 1989). But the biographical note that pours into it is so intense that it transforms these childhood machines into extremely serious moments. Childhood becomes the stage of a closed theatre, where objects such as small coffee pots, beach huts, the sacred spaces of some chapels of the Sacred Mountains continue to perform. And it is precisely the theatre, or rather *Teatrino*, that contains this complex universe of presences in Rossi's projects. The theatre is, for him, an object whose semantic dimension oscillates between the machine, the object, and the toy. (Furlenga, 1987, pp. 128-129)

Rossi himself, when talking about *Teatrino Scientifico*, defines it as a project of affection. The diminutive he chooses is to give it a more complex character than the term theatre and not define its size. The theatre is a private, singular, repetitive fact associated with the definition of playing rather than architecture. There is nothing ironic or childish, trying with this specification to move away from infantile terms the futility or unnecessary that adults attribute to it. Its name comes from the secret dimension that this object takes on, just like games for children are secrets, wrapped in a code of serious rules that can only be shared with a few.

Rossi states that the scientific dimension derives from many reasons: it is certainly a mixture of the Anatomical Theatre of Padua and the Scientific Theatre of Mantua and the scientific use of the memory of the theatres to which Goethe entrusted the years of his youth. He continues and says that they were also simple, temporary structures; the time of a midsummer love, of a febrile and uncertain season, the temporary theatre, destroyed by autumn, which

Chekhov has wisely designed between a dead seagull and a gunshot. It was just a little theatre where the story took place within life but where the theatrical, summer, vacation time marked life. (Rossi, 1990, p. 33)

The shape of this object/machine/toy is a house. An archetype of memory associated with the idea of comfort and security. Reminiscent of Raymond Roussel's *Impression d'Afrique puppet theatre* (Rossi, 1975).

The emptiness that that space contains is so powerful that it reverses the relationship between the inside and outside. The facade, where a clock suspends time at five in the afternoon, is the limes in which the relationship, fundamental for architecture, is lost between the outside and the inside. The interior welcomes the exterior, represents it, and transforms it into a real "place to play." A place so dear to Rossi that he will propose it again in the Carlo Felice Theatre in Genoa.

We thus enter a representation suspended between narration and reality. As Carlo Mazzeri points out, what Rossi has in his hands, albeit of limited dimensions (65x65x62cm), is a very powerful instrument. The definition of this little theatre can easily be that of a machine for architectural games, where Rossi becomes the demiurge, author of the comedy on stage. (Mazzeri, 2016, p. 150).

In this space, then, architecture will appear, like a ghost. An iconographic array of presences dear to Rossi will enter the scene: the columns of the Gallaratese area, the San Carlone, the chimneys of Modena, the industrial buildings, the coffee pots, the houses on the beaches of Chieti, the towers. As Moneo writes, the Theatre will be the paradigm of the city, in converting it to its representation, to the materialization of its memory. Theatre of Memory, Theater of Architecture. (Moneo, 1979, p. 42)

The *Teatro del Mondo* that Rossi designed for the Venice Biennale in 1980 is another example of these toys. It is something that floats from the sea. This floating object holds all the charm and wonder of paper boats that stay afloat. When the theatre of the world came to Venice from the water, Rossi says, his Portuguese friend José Charters reminded him that in Portugal, there is a proverb that says that everything good comes from the sea. In addition to the homage, Rossi continues, there was something architectural in that statement, in the singular building that could have been born right on the Atlantic shores, in the land that the Portuguese poet defines as the country where earth ends and the sea begins. (Rossi, 2020, p. 71)

It is an object that arrives and divides two worlds but also separates two times: the sea and the earth, the memory and the promise. Perhaps it is the object most linked to childhood in Rossi's world. Its shape results from a superimposition of a box with a roof, a sphere, and a flag. Its materials suggest a playful

nature: wood. Wood is the material best suited for toys, most associated with a child's imagination, the colored blocks of 'freoberian' memory, which always allow different solutions with only a few geometric shapes. The theater structure is made of innocent tubes that recall the need for assembly and disassembly so that the game can respect its ephemeral characteristic, with a limited duration in time. (Mazzeri, 2016, p. 156)

Unlike the 'Teatrino,' which was only a stage, one can enter the Teatro del Mondo, thus showing its human, habitable scale. But you enter another space, where, once you cross the threshold, you accept the game's rules, where it is clear where reality begins, and representation ends. The "actual" reality enters this space from the windows that frame the Giudecca and let the Lagoon enter. Inside, you are on the water, the rocking of the building tells us so, performing the same ancient miracle of the city of Venice: resisting on the water and in the water.

You look at the Teatro del Mondo just like you look at Venice, with the same question in your head: how can you do it? And immediately another one follows, of a childish nature: how does it work?

Rossi's relationship with Venice is so strong that he was about to be struck by the same illness: architecture that lends itself to commodification, which becomes a souvenir, suitable, and object of group photos. So the toy is immediately dismantled, and the game is over.

The passage from reality to playing in Rossi takes place through some mechanisms, as Mazzeri points out in his thesis: the mechanism of composition and scale change. The composition takes place in simple words, which bring his architecture closer to the functioning of toys, as Rossi himself tells us in his seventh blue notebook. (Rossi, 1999) Each word approaches the other without alternating its meaning but entering into a relationship.

It is a mechanism that can be recognized in the *Fontana monumentale* in the Milan business center (Meda & Rossi) or the *Monumento ai Partigiani a Segrate*. (Furlong, 1987, pp. 33-37)

Simple objects make up a toy on an urban scale: a cylinder, a prism, and a ladder, as in the drawings of Alberto Savinio. The simplicity of the objects is associated with a compositional mechanism and transforms everything into architecture. An architecture, however, that refers to the mechanical games of childhood memory.

Another example of this theme is Pinocchio's Yatay for the centenary of Nagoya. A Yatay is a temporary mobile restaurant, moved by an external vehicle. For the 1964 Olympics, new hygiene regulations were introduced, which led to the decline of these activities. (Mazzeri, 2016, p. 160)

It is an object that straddles a theatre, a cart, a stall and refers to the Japanese tradition of mobile, temporary, ephemeral. Like a little train, the simple

architectural forms typical of Rossi's repertoire pass one after another: towers, cabins, a theatre covered by a barrel-shaped bull. All lined up pulled by a tractor locomotive driven by Pinocchio. (Furlong, 1992, pp. 174-175)

The game of scale involves the mechanism of modular invariance, i.e., the use of the same forms both on a smaller scale and on a larger scale. This appropriation of objects is so complete that it passes from one scale of reality to another without losing consciousness of what is doing. The same playful process that sees the child perfectly aware of his "pretending." The clearest examples of this mechanism can be found in the Conica, the Dome, and the Piazza designed for Alessi. (Furlong, 1987, pp. 294-296)

Rossi's attitude towards design was the same as he had with architecture. The important thing was not disciplinary specificity but his passing from micro to macro. With Rossi, stopping moments are not as important as the paths that connect two station points.

The binomials, the dichotomies, the passages further enhance the suspension in time of the objects. It is like Rossi's coffee pots, which are the object and symbol of a ritual. The square he designed for Alessi in 1983 is an altar to the coffee ritual, which becomes architecture like a real temple, like the ludus Bramantesco del Belvedere. The Dome comes directly from Antonelli's dome in Novara. Coffee makers go beyond their function, manifesting their simple object nature. And when the function and the meaning are removed, the object lends itself to any operation that alters its formal identity. And here, then, the magnified coffee pots become parts of cities or towers like *L'Architettura Domestica* (Celant & Huijts, 2015, pp. 82-83).

In the domestic theatre for the 1986 Triennale di Milano, coffee pots become giants and take the place of men in domestic spaces. It seems that in design objects, Rossi finds that freedom that architectural construction did not allow him. As Moneo says, Rossi put his feelings into objects without damaging the construction and respecting their functionality. In the objects, they could relive the images of his universe of memories. In architecture, the constructive complexity did not coincide with the formal simplification that Rossi was trying to apply to the creative process. An object can submit to the tyranny of form without losing its object value, architecture cannot. (Moneo, 2004, p. 142)

3 EVOLUTION AND DEVELOPMENT: ENZO MARI

Enzo Mari says that it is written about him that he made some exceptional objects. If it is true, he continues, it is perhaps because he never went to school. (Mari, 2020, p. 13)

Enzo Mari (1932 - 2020), in seeking the origins of his ability to touch everything he saw first-hand and explore it with curiosity, takes a backward journey and hypothesizes that perhaps all this began in childhood. From there, he begins to reconstruct his paths and to understand how fundamental it is to ask the right questions. (Mari, 2020, p. 13)

He made his first play tool in 1956. It was a wooden puzzle zoo. It was the first sequence of episodes that tell of his interest not so much for childhood, but for a specific characteristic that denotes childhood: the natural ability children have to accept simple forms. From this non-sophistication of children, Mari composes his objects to play. In these games, not only the forms are included, but the rules. Open and always customizable rules in every game. His behavior as a designer is operational and never binding.

Mari provides objects that create spaces or stories. This means that his play tools are behavioral and not consumer objects. His amazement at the evolutionary effort a child makes to conquer human skills led him to say that every two-year-old should win a Nobel Prize. When a child is born, says Mari, he/she has only a vague perception of being; does not know how to understand the surrounding space. The child does not know of time. How can the child, Mari asks himself, understand everything, from the simplest to the most complex, in such a short period? Thanks to the praxis-theory process, which is the same principle that Mari has tried to adopt all his life. (Mari, 2020, pp. 34-35)

Also, in the 1950s, Mari devoted himself to artistic activity, engaging in solo and group exhibitions in museums and galleries, and became part of the *Arte Cinetica* group, where he met Bruno Munari (1907 - 1998). The artist's influence is visible in 16 animals, the interlocking puzzle designed by Mari in 1956 and put on sale by Danese in 1957. As soon as the Danese company was founded, a series of experimental paths began to produce children's games. They are to be considered avant-garde if placed in Italy's social context of the second post-war period.

Enzo Mari and Bruno Munari were the protagonists of this overturning of methods in the approach to the playful aspect of the world of children. In an Italy that had just emerged from a model of fascist pedagogy, which did not educate but imposed itself with authoritarian forms, Danese's toys revolutionized the approach to children. They were not mono-functional but instead allowed the opening of new creative paths and multiple, if not infinite, individual interpretations.

In his production, there is always the disenchantment of those who watch the boats float and wonder how they do it. The same amazement that Rossi had in front of his life. Why, Mari wonders, do the little ones who at the age of two could have won the Nobel Prize lose the ability

to take an all-encompassing approach as adults? Perhaps because of all the direct and indirect teaching that led them to train on a single fragment, useful for a social role but which made them lose the desire to set sail. (Mari, 2020, p. 165)

It is necessary, continues Mari, to regain possession of the individual capacity to make projects. Because designing is like sailing. One learns to do it by following the coastline, keeping it as a reference, but dreaming of crossing the ocean is likely that someone will discover a new route. (Mari, 2020, p. 171)

This disenchantment leads Mari to build places that go beyond space. In *Il posto dei Giochi*, designed for and produced by Danese in 1967, he built a crenelated cardboard wall: ten panels with different shapes and decorations that defend the "place" to play. It is a fortress that can be dismantled if necessary, a threshold for passage from an "outside" world and an "inside" world. But the world inside has no rules, only shapes (yellow circles, blue waves...) that just suggest. Then the creativity of those inside does the rest.

As we have seen with Huizinga, the definition of a place to play is one of the essential rules in the playing process. This limit, without end, protecting without preventing, will continue in Mari's experimentation with games. In 1968 he created The big stone game in Carrara: a playground for children made up of eight travertine slabs and paved with slate slabs. Each slab had two holes in different positions to allow reality to enter the "place" of the game in different ways, decided from time to time by the protagonists. The choice of marble, as Mari says, not common in playful objects, but more familiar in urban objects, makes the big stone game more lasting, and each slab of marble, precisely by its nature, is different from the other and a recognizable, functional feature for the games. (Mari, 1969, p. 284)

Mari has designed more than 1,500 objects, mainly for large Italian companies and Danese, Zanotta, Driade, Alessi, Artemide, Olivetti, Ideal Standard, Flou, etc. Iconic objects such as the *Delfina e Mariolina* chairs, the *Glifo* bookcase, the *Formosa* wall calendar, the *Togo* coat hanger, and many others remain vivid images in our memory.

But in the world of childhood, he left an indelible mark, as did Munari. His sensitivity and ability to design through an emotional approach have distinguished him in the world of international design on the one hand but have made him eternal in the world of children. Every time a child plays with one of his toys, they contribute to perpetuating his contribution, which is always current and therefore always eternal.

4 ART IS A FUNFAIR: CARSTEN HOLLER

The evolutionary process leading to adulthood involves some renunciations or behavioral transformations that

seemed natural as a child. The playful aspect of things loses its seriousness and playing returns to its definition of lightness and superficiality. Therefore, experiencing the game as an adult means abandoning seriousness for some time and returning to joy. Joy, as an emotion, is a state that frees us from a series of behavioral structures that are socially required of the adult. It is the ability to stay in the lived moment without forwarding projections or regressions towards the past. The world of art has dealt with the playful aspect of the world of children several times, trying to make up for the lack of playtime in the adult world. Carsten Holler (1959) is a German artist who has built his own artistic production on the concept of entertainment and experience. (Gompertz, 2014, p. 347)

In the ‘irresistible’ helter-skelter slides in South Bank’s Hayward Gallery or the Golden mirror carousel, Carsten proposes a disenchanting and cheerful approach to art to the art world. (www.gagosian.com, sd)

However, his interventions start from prejudice about places of art. The official places of culture are not fun, and art is only a moment of profound reflection on the great existential themes. Returning to childhood is an experience that belongs to amusement parks. So, to make up for this distance between these two places, Holler merges them. He inserts amusement park experiences in museums. These experiences re-propose moments of lightheartedness shared with strangers. A heterogeneous audience in terms of origin and culture finds itself for a limited time in the same space, which is transformed into a real “place of games.” Just like they did as a child.

In 2016 a retrospective dedicated to Holler, named *Doubt*, was organized in Milan. The exhibition, curated by Vicente Todolí, expands through two parallel paths, which require the public’s participation. This participation is free in the choice of the type of experience: this is why the exhibition is called *Doubt*. The choice, according to Holler, is inherent in the very definition of a work of art. Since the opening installation, Y (2003), the numerous light bulbs that turn on intermittently immediately place one of the risks of the freedom to choose: the doubt of what to choose. *Doubt* presents other works (twenty in all), all located on the central axis of the exhibition space. (Procaccini, 2016)

Large installations, videos, and photographs play with the spatial and temporal coordinates of the exhibition space, developing a journey between symmetry, duplication, and overturning. The exhibition itinerary alternates works that refer to optical experiments - including Upside-Down Goggles (1994 - in progress), with which the artist invites the public to see the world upside down - to those linked to a playful dimension - such as Two Flying Machines (2015), with which you can experience the sensation of flight or Double

Carousel (2011), a carousel for adults that causes feelings of euphoria and amazement.

5 CONCLUSIONS

The stories told in these pages are just some of the many artistic experiences that have related to the world of childhood over time. They were chosen solely for their intimate relationship with the idea of space and the way it is experienced.

The numerous connections between the world of art and the world of childhood make us reflect and realize that as one grows up, one goes against the process of losing something natural in childhood. As the quoted poet says, children don’t have opinions about anything, have no habits, and often sit down cross-legged. Opinions lead to direct or limit the creative process, which, beyond a vocation, needs to have no superstructures to express itself. On the other hand, habits lead to the spiral of automatisms that do not allow deviations, alterations, or breakages.

Children constantly ask questions, even difficult ones, about time in space and are often not satisfied with the first answer. Yet, as adults, we sometimes have moments when we would like to return there, to that place where everything was about to begin, to be able to rewrite our history with more joy and less nostalgia. Architecture, art, music, playing lead us back to that moment, even if only for a short time.

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Spatial requirements and standards in the post-COVID-19 house

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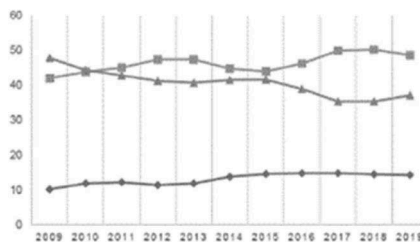
ABSTRACT: In people’s imagination, the dwelling represents a fundamental part of life. However, the COVID-19 pandemic has radically changed people’s usual way of living, working, entertaining, and leading life. The situation has imposed a radical rethinking of the constructed environment. In fact, problems connected to the quality of buildings, not only energetic, have emerged and those related to the general well-being, with particular attention to the space where everyday life takes place and the requirement of external spaces such as balconies or terraces, has emerged. This chapter covers an aspect of well-being related to the quality of space in the dwelling and its characteristics as a place for living. The case study regards the economic and popular buildings located in the city of Bari. The case study highlights contrasting living conditions, which impose a generalized review of the dwelling.

Keywords: Living space, Covid-19 housing, Space standard, Crowding index

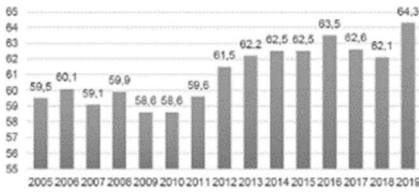
1 COMPOSITION OF THE ITALIAN POPULATION

With its population and society, the contemporary city can be assimilated to a constantly evolving organism, subject to continuous changes due to the economic, social, and space-time conditions of the places where its inhabitants reside. The undisputed protagonist of society is the family: habitual and privileged residents of our cities. Giuseppina Sacco [Sacco, 2020] stated that the term family presumes a group of people who live together, forming, transforming, and dividing itself, giving birth to a familiar structure. From this, other familiar relationships derive, which are established between initially distinct groups. However, currently, the “traditional” family model, based on the spouses and the centrality of the children, has radically changed. The establishment of different socio-economic and cultural conditions has substantially revolutionized the composition of the households, both in terms of composition and number. The study by Chiara Lodi Rizzini [Lodi Rizzini, 2013] highlights how a significant role in the changing process has originated from the working condition of women as well as the subsequent decrease in the “total fertility rate”; the increase of education, which has led to a prolonged permanence of the children within the household; the decrease of weddings, with a significant increase of singles, separations, and divorces. The data from ISTAT [ISTAT, 2016] reinforces these concepts and highlights how, after an apparent increase of the population and families, its size has changed, moving from

an average of 3.35 components per family to 2.4 components per family just 40 years (1971-2011). This analysis is moreover reinforced by the fact that, for the same period, it is observed that families of 5 or more components have shifted from 21.25% of the population to 5.72%. Vice versa, there is a significant increase in the percentage of the single-person households, which, if in 1971 accounted for merely 12.90% of the families, in 2011 correspond to 31.15%. However, the decrease in the number of components within the households is not the only element observed. Instead, the number of single-parent families – composed of a single parent with children – has increased (this factor is boosted by the increase in the separations and divorces), the number of self-sufficient elderly over-65 who still live alone. Lastly, the condition of the youths between 18 and 34 who still live in the family is another strong influence.



Graphic 1. Marital status of single parents 2009-2019 (Source: ISTAT - Aspects of daily life Households).



Graphic 2. Young people aged 18-34 living in a household with at least one parent, 2005-2019 (percentage values of samples with the same characteristics) (Source: ISTAT, Aspects of daily life - Households).

The emerging extremely varied pattern of types of families generates requirements related to the definition of new environments connected to the living needs: the estate assets currently available, especially the public ones, should find a new inclusive scale that can meet different requirements [Lodi Rizzi, 2013].

2 THE EMERGENT SOCIAL HOUSEHOLD

The presence of different and new kinds of households inevitably steers the debate towards the revision and the research of living standards that are more responsive to the new reality. In fact, it is undoubted that the varied households present different needs and requirements. Therefore, a first classification should start from defining the components of the “new family,” making a distinction based on the working condition, the marital state, age, the presence (or absence) of cohabiting children and/or elderly. In the study of the domestic space of Portuguese housing, conducted in 2015 by Rute Gomes et al. [Gomes, 2015], the necessity to make such distinction emerges since different requirements and living spaces correspond to each household. The distinction made based on such census sees, therefore:

- the single-person households based on age and occupation: single-person households within working age (25-64 years of age), single-person households in non-working age (over 65 years of age);
- households composed of two people, which also include less traditional types of families: couple without children; a single parent with a child; unrelated cohabitants, households of three people;
- households of three people: a couple with a child, single parent with two children (same or different sex), unrelated cohabitants, families composed of several households (e.g., a couple with an elderly cohabitant);
- households of four people: a couple with two children (same or different sex), single parent

- with three children, unrelated cohabitants, families composed of several households (e.g., a couple with a child and an elderly cohabitant);
- households of five or more users, including numerous combinations such as parents with three children, parents with children and elderly cohabitants, couples of parents with children and a child with their newly composed family, etc.

3 TIMES AND WAYS OF LIVING OF THE URBAN SOCIETY PRE AND POST COVID-19 PANDEMIC

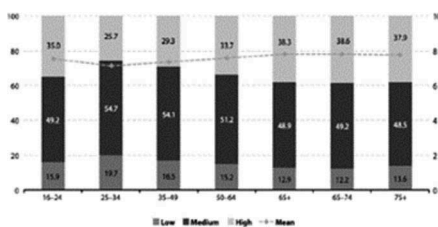
Each individual’s time spent within their home was mainly related to personal care activities, domestic chores, and rest. Instead, the remaining part of the day was spent outside, namely for free time, work, education, and training with the consequent commute to reach the places predisposed for those activities. As it can be observed, the working single-person households (between 25 and 64 years of age) spend most time outside their home (45% over 24 hours), followed by the single-parent families with children (34% over 24 hours). The lowest percentage of time spent outside the home is represented by the unemployed between 45 and 64 years of age, with 29%. Therefore, the home was gauged, conceived, and organized over the years to accommodate a limited number of activities normally included in its residents’ lives. Therefore, the housing surface could not correspond to the family’s actual requirements since some of its members could perform some of the functions, as study and work, also outside.

The impact of the health emergency caused by the COVID-19 pandemic has imposed periods of lockdown alternated to semi-lockdown on the entire national territory. Such circumstance has made it necessary to relocate all the activities usually performed outside the home. In fact, on an average of around 60% of permanence at home, in 2014, it became necessary to remain home 100% of the 24 hours during the pandemic. [ISTAT, 2017] This has occurred in all social categories, regardless of age, family condition, or occupation. Therefore, the home has been adapted to the requirements of the moment, making room for work, education, and free time. However, is the Italian housing, with its characteristics and sizes, able to satisfy these new requirements? The investigation of the Italian Revenue Agency [Agenzia delle entrate, 2019 e 2020] for the years 2019 and 2020 reports that more than a third of the housing has a surface between 50 and 85 sqm, but at the same time, according to the latest census, [ISTAT, 2017] more than a third of the

population lives in apartments under 60 sqm. The same data reveals that 20.7% of the apartments in this range have a surface of 80 sqm with four or more people living inside. It is then clear that this pandemic situation has significantly highlighted the condition of household crowding, a circumstance that until before the pandemic (as mentioned previously) was compensated by the time the individuals spent outside the home. The greatest criticisms have emerged in all those realities where privacy and space were lacking; in other words, all those households composed of more than two people, especially those with more than a child in school age.

4 DWELLING SATISFACTION AND HOUSEHOLD CROWDING INDEX

Multiple aspects describe the living conditions of the families ranging from the problems of the building organism in its stability and energy consumption to the quality of the living space of the dwelling. Since 2013, through the BES within the indicator “economic well-being,” the ISTAT identifies the condition of “severe living deprivation,” pointing out, among the fundamental factors of household crowding, structural problems, lack of adequate and sufficient restrooms and services, [M.D, 1975] and last, the inadequate illumination of the areas. In the section “Living conditions in Europe,” the investigation conducted by Eurostat [Eurostat, 2014] remarks and reinforces these problems underlining how the household composition significantly influences the household crowding index. This investigation reveals that the highest dissatisfaction is expressed by those who live in single-parent families, with 16.0%, followed by families with two adults and three or more children (13.1%). Interestingly, the degree of dissatisfaction with the home is higher in households with children aged between 25 and 34 years of age.



Graphic 3. Degree of satisfaction with housing by age group, EU-28, 2013 (Source: Eurostat, Quality of life. Facts and views, 2015).

The household crowding index is the parameter that measures the quality of the living conditions and the availability of sufficient space in a dwelling in relation to the size of the household and the age of its members. As a result, it is a highly variable parameter in the life of a household. In particular, as reported in the Eurostat investigation [EUROSTAT, 2015], a dwelling is considered crowded if the household does not have at its disposal a minimum number of rooms:

- one room for the household;
- one room per couple in the family;
- one room for every single person aged 18 or more;
- one room per pair of same-sex children between 12 and 17 years of age;
- one room for every single person aged 12 to 17 years of age not included in the previous categories;
- one room per pair of children under 12 years of age.

Therefore, the formula to calculate the household crowding index is:

$$\text{Household crowding index} = \frac{\text{number of users}}{\text{number of main rooms of the dwelling}}$$

It is fundamental to point out that the main rooms are all the dwelling rooms, excluding the services and halls. Suppose the resulting value is smaller than one (household crowding index < 1), the dwelling is classified as oversized compared to the users’ requirement. On the contrary, the dwelling is considered overcrowded when the number of rooms available is insufficient to satisfy the minimum space requirement previously defined (household crowding index > 1). The observation of the European data indicates that in 2016 around 16.6% of the families lived in overcrowded dwellings. Moreover, such ratio was higher in east Europe, slightly lower in the southern countries, and considerably lower for the north of Europe [EUROSTAT, 2015].

This situation is undoubtedly due to the different living policies in the various countries and cultural habits, which tend to respond to the lack of welfare with the permanence of the youths (between 25 and 34 years of age) within the household of origin. The crowding condition is undoubtedly more evident for those living in cities (17.6% of the population) than households in the rural areas or the outskirts (14.9%). However, the crowding parameter is not sufficient to indicate the inadequateness of the dwelling. Such parameter is generally associated with the average number of rooms per person. Also, in this case, there are two relevant matters: the number of rooms per person is lower for people living in the cities (1.5) compared to those living in the rural areas (1.7); a low average per user is confirmed for

the eastern European countries, slightly higher for the southern ones and high for the northern ones (in Belgium it reaches up to 2.2 rooms per user). The limit of this investigation lies in the fact that the data are collated by country and rarely report values for less extended geographical areas. If we focus the attention on the case of Italy, there are collated data for the main Italian cities, in which the urban and the suburban data are assimilated, resulting in compromised final data. In fact, the average number of rooms per user in the cities appears to be noticeably reduced by the average of the suburban and rural areas.

5 RELATIONSHIP BETWEEN THE REQUIREMENTS AND COMPOSITION OF THE HOUSEHOLD: AN ITALIAN INVESTIGATION

The World Health Organisation has fought for human rights many times, reporting among the fundamental rights the necessity of an adequate dwelling to one's existence. In particular, in October 2010, on the occasion of the International Workshop on housing, health, and climate change, it has remarked that, among the indicators which define the quality of the dwelling, there is undoubtedly also an adequate living space to guarantee the privacy and allow everyday activities. Starting from this consideration, the case of a household composed of 4 users has been analyzed and formed by the same number of components but variously articulated. The requirements defined for each group has been given starting from the dispositions of the health and hygiene norms [M.D, 1975]. From this assumption, we proceeded to make a comparison between the housing conceived and designed according to the "traditional family" model, which sees for the children a prevalently double number of bedrooms regardless of sex and age and a dwelling with the same number of components but different compositions and associating to each child the bedroom in relation to the age and sex as indicated by the household crowding index. It is important to remember that such analysis is based on a dwelling of economic and popular construction, which therefore has to respond to norms relating the number of users to the surface of the dwelling (as per norm reference).

6 THE DEFINITION OF THE SURFACES AND THE RELATIONSHIPS BETWEEN THE AREAS OF THE DWELLING

The parameter used for the definition and the quantification of the spaces is related to the number of rooms required for the sleeping area. This value,

defined by the D.M.—for the single and double rooms, does not distinguish between the occupants' parental relationship, age, and sex. The space of the sanitary facilities has been associated with this computation, calculated as one only for the households composed by one or two people, and two for the more numerous households (one with a bigger size with a bathtub, and a smaller one with a shower). Then, the values of the distributor surfaces have been entered. These do not have a defined surface by the norm but are widely codified by the existing manuals. Therefore, we have referred to those values reported in the Neufert [Neufert, 1999]. The surface of the living area, composed of the living room, dining room, and kitchen with the related distributors, has been obtained as a difference of the general surface, minus the sum of the sleeping area (composed of the bedroom, sanitary facilities, and related distributors). It has emerged that the definition of the spaces necessary to the single person households disregards the age of the individuals it refers to, it being a double bedroom and a single service. The problems start to appear with the households with two people. In this circumstance, there are different requirements for the bedrooms where the users are not a couple, while it can be supposed that the number of sanitary facilities remains unchanged. The households composed of 3 people present a multifaceted framework of requirements, especially with the fact that the necessities connected to the rooms of the sleeping area have to consider the age and the sex of the children. In this case, moreover, the presence of a second bathroom starts to become important for a better liveability of the dwelling. However, the presence of the second sanitary service is not always required; sometimes, for the compositions of particular households, it could be removed in favor of a laundry room or a closet. It is nevertheless a space to take into account in the assessment of the surfaces. In households composed of 4 people, the frame of requirements becomes complex and differentiates further. In particular, for the attribution of the bedrooms in the single-parent household with three children, it is supposed that only one of the children has a single room, while the other two share a double room. However, if we only consider the normative data for a dwelling for four people, it does not pay attention to the household composition since it presupposes that there are only two bedrooms (one double and one twin). It goes without saying that normally, for this kind of dwelling, to compress the spaces and give more surface to the living area, the tendency will be to have two double bedrooms. The following table illustrates the situation showing the complexity of the households and the related spaces.

NUCLEI CON 4 PERSONE					
Tipologia di stanza	Camera matrimoniale	Camera singola	Camera doppia	Bagno principale	Secondo bagno
Coppia con 2 figli dello stesso sesso					
Entrambi i figli di età inferiore ai 17 anni	1		1	1	1
Entrambi i figli maggiorenni	1	2		1	1
Coppia con 2 figli di sesso diverso					
Entrambi i figli di età inferiore ai 12 anni	1		1	1	1
Entrambi i figli di età superiore ai 12 anni	1	2		1	1
Monogenitore con 3 figli (primogenito + 2 figli dello stesso sesso)					
Entrambi i figli di età inferiore ai 17 anni	1	1	1	1	1
Entrambi i figli maggiorenni	1	3		1	1

Figure 1. Framework for groups of 4 people.

It is evident how the number of spaces inside the dwelling change even if we refer to households composed of the same number of individuals but different family compositions.

7 CHARACTERIZATION OF THE DWELLING STARTING FROM THE SURFACES OF NORMATIVE REFERENCE

At this point, it was necessary to define the surfaces of reference for the entire dwelling concerning the number of users. The case study (EEP building located in the city of Bari) has led to choose as normative references the Regional Law of 7 April 2014, n. 10, which establishes the relationship between users and surface (45 sqm for 1 or 2 people; 55 sqm for three people; 70 sqm for four people; 85 sqm for five people; 95 sqm for six people).

Next, we proceeded to the definition and the attribution of the surfaces as illustrated in the previous paragraph and reference to the RE of Bari City Council of 2012. The following surfaces have been attributed: 9 sqm for the single bedroom, 14 sqm for the twin or double bedroom, 3.5 sqm for the bathroom with a bathtub (minimum size), 2.0 sqm for the sanitary facilities with a shower (minimum size). Lastly, since the size of the distributors cannot be rigidly standardized, given that their size depends on the distribution of the rooms in the dwelling, the surface reference reported on the design manuals has been used [Neufert, 1999], for which the minimum surface is calculated in function of the number of rooms overlooking it.

The major problem was the sizing of the living area, for which there are normative indications only for the living room (16 sqm for the national normative and 14 sqm for the RE of Bari City Council) at

national scale and for the kitchen (9 sqm) at the municipal scale. Therefore, the living area, including the living room, dining room, kitchen, hall, and annexed distributors, has been supposed to be computable as a difference between the rooms of the sleeping area, the sanitary facilities, and the annexed distributors. The case study report is based on a household of 4 users for a total surface of a minimum 70.00 sqm dwelling. For each macro category of household, differentiated by the number of components, the sleeping areas have been defined in the first place: the number and kind of necessary bedrooms, the number of sanitary facilities, and distributors have been associated. Consequently, the surface of the living area has been attributed as a residual surface, as already illustrated in the previous paragraph. On average, we can attribute the following surfaces to a dwelling conceived for a “traditional household.”

Zona Notte	Camera matrimoniale	14,00 mq
	Camera doppia	14,00 mq
Zona Giorno	Cucina-Pranzo-Soggiorno	30,50 mq
Servizi	Bagno	5,50mq
	Secondo bagno	2,00 mq
	Distributori	4,00 mq
SUPERFICIE TOTALE		70,00mq

Figure 2. Areas of accommodation for four persons by functional areas.

For the households composed of 4 users but variously articulated, we have referred to the aggregations and surfaces reported on Graphic 4.

The high number of components of the household, which cannot always be grouped among themselves by age and sex, implies numerous criticalities connected to crowding, which are more evident in the case of a single parent with three children of different sex and age.

In particular, analyzing this type of household, it is evident that it is necessary to have a sleeping area composed of a double room and three single rooms for 41 sqm. Starting from the surface of reference, corresponding to 70 sqm, it is evident how the sleeping area occupies more than 50% of the total surface at the expense of the living area. Therefore, the necessity of further bedrooms, but the impossibility of their realization, cause a critical situation of living discomfort related to the lack of privacy and the inadequacy of the common spaces.

Therefore, since the normative value fixes the dwelling general surface and rooms in the sleeping area, there is substantial difficulty in guaranteeing the right levels of privacy with the allocation of private spaces.

8 POSSIBLE SCALE SCENARIOS

The criticalities highlighted in the previous paragraph lead to a remodulation of the relationships in the dwelling and the related surfaces. Differently from the condition illustrated in the previous paragraph, we started by attributing an established value to the living area (resulting from the previous computation). This value represents undoubtedly a limit in the total assessment of the surfaces, but it is a first step of an investigation still in progress. The computation methodology is based on the reference of the living area surface calculated for the “traditional family” (couple with two children), 30.50 sqm.

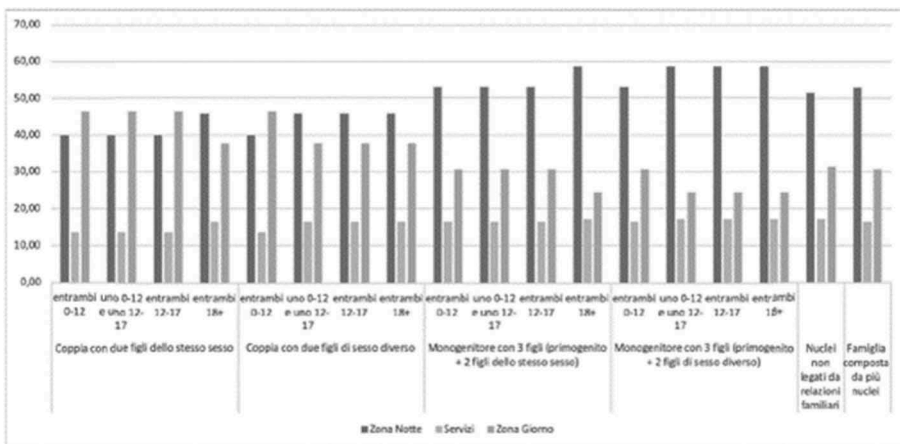
Depending on the various households’ aggregation type, the bedrooms surfaces, sanitary facilities, and distributors have been added. The following table illustrates the surface in its new possible configuration for each household.

In graphic 7, there are noticeable differences of surfaces for the various possible aggregations of people depending on the household composition.

Considering the situation, it is obvious that the demand for privacy and an adequate living space conflict with multiple factors caused mainly by the sanitary and hygiene regulation, which, although effective in the years it was imposed, is currently rigid and inflexible.

		Sup. di riferimento	Camera	Camera	Camera	Bagno principale +	Distributori	K-P-S
		(L.R. 10-2014)	matrimoniale (mq)	singola (mq)	doppia (mq)	secondo bagno (mq)	(mq)	(mq)
Coppia con due figli dello stesso sesso	entrambi 0-12	70	14		14	5,5	4	32,5
	uno 0-12 e uno 12-17	70	14		14	5,5	4	32,5
	entrambi 12-17	70	14		14	5,5	4	32,5
Coppia con due figli di sesso diverso	entrambi 18+	70	14	9 x 2		5,5	6	26,5
	entrambi 0-12	70	14		14	5,5	4	32,5
	uno 0-12 e uno 12-17	70	14	9 x 2		5,5	6	26,5
Monogenitore con 3 figli (primogenito + 2 figli dello stesso sesso)	entrambi 12-17	70	14	9 x 2		5,5	6	26,5
	entrambi 18+	70	14	9 x 2		5,5	6	26,5
	entrambi 0-12	70	14	9	14	5,5	6	21,5
Monogenitore con 3 figli (primogenito + 2 figli di sesso diverso)	uno 0-12 e uno 12-17	70	14	9	14	5,5	6	21,5
	entrambi 12-17	70	14	9	14	5,5	6	21,5
	entrambi 18+	70	14	9 x 3		5,5	6,5	17
Nuclei non legati da relazioni familiari Famiglia composta da più nuclei	entrambi 0-12	70	14	9	14	5,5	6	21,5
	uno 0-12 e uno 12-17	70	14	9 x 3		5,5	6,5	17
	entrambi 12-17	70	14	9 x 3		5,5	6,5	17
		70		9 x 4		5,5	6,5	22
		70	14 x 2	9		5,5	6	21,5

Graphic 4. Calculation of reference areas for each family grouping.

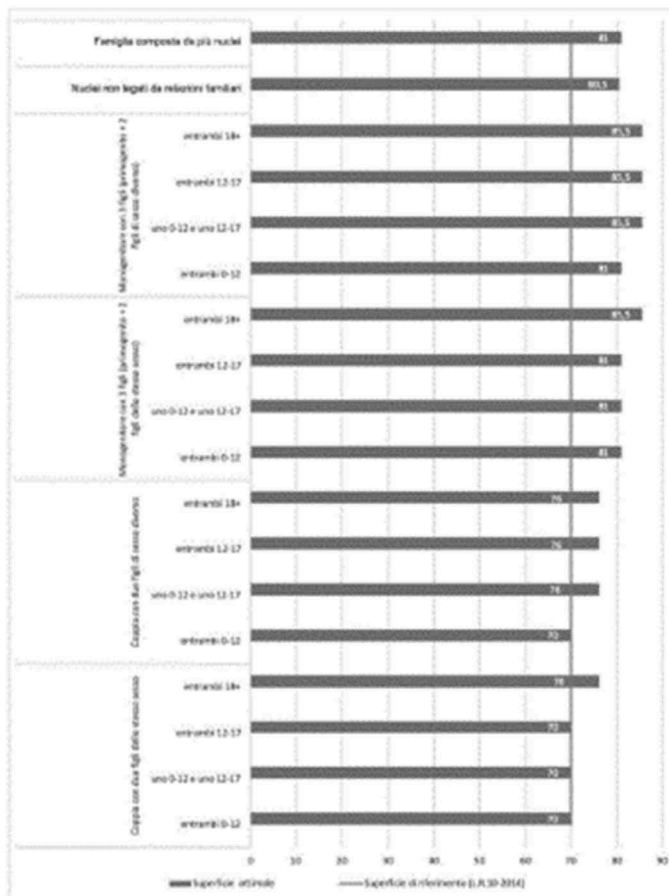


Graphic 5. Percentage weight of functional zones per housing of 4 users per family grouping.

Spatial requirements and standards in the post-COVID-19 house

		Sup. di riferimento (L.R. 10/2014)	Camera matrimoniale (mq)	Camera singola (mq)	Camera doppia (mq)	Bagno principale + secondo bagno (mq)	Distributori (mq)	K-P-S (mq)	Superficie stimata
Coppia con due figli dello stesso sesso	entrambi 0-12	70	14		14	5,5	4	32,5	70
	uno 0-12 e uno 12-17	70	14		14	5,5	4	32,5	70
	entrambi 18+	70	14		14	5,5	4	32,5	70
	entrambi 18+	70	14	9 x 2		5,5	6	32,5	76
Coppia con due figli di sesso diverso	entrambi 0-12	70	14		14	5,5	4	32,5	70
	uno 0-12 e uno 12-17	70	14	9 x 2		5,5	6	32,5	76
	entrambi 12-17	70	14	9 x 2		5,5	6	32,5	76
	entrambi 18+	70	14	9 x 2		5,5	6	32,5	76
Monogenitore con 3 figli (primogenito + 2 figli dello stesso sesso)	entrambi 0-12	70	14	9	14	5,5	6	32,5	81
	uno 0-12 e uno 12-17	70	14	9	14	5,5	6	32,5	81
	entrambi 12-17	70	14	9	14	5,5	6	32,5	81
	entrambi 18+	70	14	9 x 3		5,5	6,5	32,5	85,5
Monogenitore con 3 figli (primogenito + 2 figli di sesso diverso)	entrambi 0-12	70	14	9	14	5,5	6	32,5	81
	uno 0-12 e uno 12-17	70	14	9 x 3		5,5	6,5	32,5	85,5
	entrambi 12-17	70	14	9 x 3		5,5	6,5	32,5	85,5
	entrambi 18+	70	14	9 x 3		5,5	6,5	32,5	85,5
Nuclei non legati da relazioni familiari Famiglia composta da più nuclei		70		9 x 4		5,5	6,5	32,5	80,5
		70	14 x 2	9		5,5	6	32,5	81

Graphic 6. Calculation of optimal housing areas for each household category.



Graphic 7. Ratio between the reference surface area established by legislation and the optimal surface area calculated for each type of household with four components.

9 CONCLUSION

The research, of which only some aspects of the living condition have been highlighted, shows how the current economic and social housing still presents numerous defects both from the technical point of view, particularly related to the obsolescence of most structures and technology. The most referenced aspect was the failure to meet the new needs of privacy and well-being. In order to solve these issues, one of the main aspects to focus on is the attribution of the dwellings, which has not been covered in this paper but is fundamental for a correct policy of revision of the whole system. Oftentimes, the Institution allows the allocators of dwellings to transfer their own right to allocate from one generation to the next. This circumstance blocks a real allocation of the dwelling in function to the requirements of the family that will occupy it. Undoubtedly, since the D.M of reference of the living standards, 45 years have gone by, and society's situation has noticeably changed.

Moreover, by attributing rigid spatial and scale relations to the surfaces, the D.M. has blocked the planning decisions. On top of this situation, the dwelling design and rationalization, which stem from the experimental research of the post-war period defined by the volumes "ina Casa," were also dedicated to consolidated and constant households. The event of the COVID-19 pandemic has strongly remarked the importance of the living conditions highlighting the vast living inequalities, particularly in the metropolitan areas. Therefore, this imposes the necessity to provide updated requirements for the constructed environment, particularly for public and social housing.

ACKNOWLEDGMENTS

This essay takes its inspiration from some reflections treated within the thesis of the degree course in Construction Engineering-Architecture of the Polytechnic of Bari: Lucente, C., & Morelli, M., (2021). *Una casa per tutti. Esigenze, spazi e standard abitativi nella casa post Covid-19*. The present author has been the supervisor of the above-mentioned thesis, and part of its contents refers directly to her research.

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Genius Loci

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ABSTRACT: Norberg-Shultz formulated the concept of Genius Loci around 1980 as an existential and phenomenological contribution to the field of Theory of Architecture. Since then, many considerations have been added. In this text, we have developed an almost literal approach to the subject, suggesting the anthropomorphizing of a place as a prerequisite to acting architecturally upon it. Notwithstanding the awkwardness, this procedure provides several advantages in understanding a place or pre-existing architecture and designing something fitting for them. This procedure is reasonable because it embodies customary actions of the brain – which we examine thoroughly with the most current knowledge in Social Psychology and Neurosciences. Some examples have been given.

Keywords: Genius Loci, Place, Heritage, Anthropomorphism, Mentalizing

The temple, in its standing there,
first gives to things their *face*
and to men their outlook on themselves ¹

1 PATRIMONIUM VS. MONUMENTUM

‘Heritage’ (*Patrimonium*) has become an empty word, thrown around often and often quite meaninglessly; it serves many purposes, but not always the ones it should.

Major social and political changes give rise to feelings of insecurity, generating the need for something solid to cling to: a stable ground that allows either a leap forward or simply provides a safe place to hold on to during the tempest. In such times, Man reaches out for Heritage – and clutches Heritage.

The twentieth century brought much change, especially after World War II: change itself, formerly smooth, sped up, and amplified people’s need for Heritage. This need was felt as intensely as the changes, the two phenomena growing together almost proportionally. (An example: the first legal measures

protecting Heritage sites are contemporaneous with the brutal destructions of the French Revolution. [Choay, 1992, pp. 78-90). How come?

Hope – which saves us from despair – can be seen as a vector pointing towards the future: hope points to some (more or less concrete) future goodness. But one should consider this vector retrospective continuity towards the Present (I am hopeful *now*) and towards the past (where my hope grows from). In doing so, one will notice that expectations for the future hinge on something that has already occurred. And what will this be? What is this backward extension of the vector of hope over the Present and towards the past? Memory! Men cannot yearn for something, specifically, if there is not some piece of memory – of a past event – that foresees or re-presents the future fulfillment of such yearning. (A man born blind cannot wish for a radiant other wall.) Memory is one’s present image of the Past (Augustine of Tagaste, *Confessions*, Book XI, chapters 17, 23, 26); it is an image that is inside oneself now. And yet, I cannot recall all that has happened to me, only that which conveyed some good to me, which taught me something, which gave me something worth keeping (even if it is just the knowledge of circumstances to avoid). The perception of such goodness makes me hold onto those experiences within myself and subsequently build my memory with them. From those same memories, I can craft an image of goodness in the present time but pertaining to the Future – such is hope. Without Memory, there can be no Hope; it is impossible to hope for, expect, consciously, freely, wholly desire something. It is also impossible to move towards self-fulfillment. As

1. Martin Heidegger, “The Origin of the Work of Art”, in *Poetry, Language and Thought* (New York: Harper Collins, 2001), 42. (The word “face”, in italics, is our own, since it seems more faithful to the original German language quotation: “Der Tempel gibt in seinem Dastehen den Dingen erst ihr Gesicht und den Menschen erst die Aussicht auf sich selbst.” Martin Heidegger, “Der Ursprung des Kunstwerkes”, in *Gesamtausgabe*, I. Abteilung: Veröffentlichte Schriften 1914-1970, Band 5, Holzwege (Frankfurt: Vittorio Klostermann, 1977), 29.

Orwell's 1984 illustrates, the lack of memory causes not only a lack of hope but a lack of desire as well: apathy. Safeguarding Memory – either as individual or collective – is therefore essential for a sound human life, one to evolve in time and space dynamically.

But human memory is fragile insofar it is entirely placed in friable containers: live, perishable tissue. That is why, since time immemorial, Man has chosen to entrust his memories to something outside himself, something more durable – things, places. As a result of this endowment of memories – which has involved the craft of things and places, the work of man upon matter – the things and places acquired a quasi-human stance. That is, they address us, speak to us, embrace us; they have developed a non-instrumental value, a value that does not depend on their ascribed use – a value of *irreplaceability*, which is similar to that of human beings. This is why, in changing times – in times of crisis, such as ours – one may return to such things and places, as one returns to a father, for protection, or to a mother, for gentle affection.

'Heritage': in what was said above lies its existential meaning and from this meaning stems Heritage's *raison d'être* and our reasons to safeguard it.

The alternative is frightening. Freud mentions a few cases in which one's attempt to ignore his or her past – due to its weight and trauma – generates a "repetition compulsion." In this phenomenon, the non-assimilated past events arise unconsciously, causing the patient to repeat those same behaviors they condemn, behaviors that have burdened them or traumatized them (refer to Ricoeur, 1998, pp. 19-20). (Alfred Hitchcock's classic film *Psycho* depicts this well.)

The preservation of Heritage is not, therefore, a "cultural" concern, as is sometimes superficially put; it is not (or at least shouldn't be) "for the sake of tourism." No: Heritage is necessary because it is, literally, monumental.

"Monumentum," gerundive of the Latin verb *moneo* is translated as 'to remind' (in an exhorting sense). The word 'monument' – rather less empty than 'Heritage' (*Patrimonium*) – designates the same group of objects in a much more appropriate and perceptive way. A 'monument' is simply that which reminds us. It is a reminder – a monument – of those personal or collective experiences that have generated some form of insight, either self-revealing – of individuals or societies – or concerning others; an understanding, a perception, an awareness that leads to a better, more humane life.

If that is the reason why we must defend Heritage – or rather 'monuments' (as henceforth we shall call them) – the question that follows is *how*.

2 BRAIN & GENIUS LOCI

First of all, it is necessary to acknowledge the monument – acknowledge it and perceive it in its essence, i.e., its goal and distinctive effect. In other words, to become conscious of its meaning, of the piece of memory it contains and conveys. But of the meaning of the monument *in my* memory and *in* the memory of each one, one should realize the *for-me* content of the monument. Hence, it is insufficient to point out the categorical or abstract – sometimes referred to as "historical" – determinants of the monument, since they are not, as such, existential, i.e., operative in one's life; as such, they would not be able to influence mindsets nor move individuals nor nations. (An example of this is given by Walter Benjamin when he speaks of soldiers returning voiceless from the battlefields of World War I. They could say nothing, not because nothing had happened, but because it was not possible for them to devise the *for-me* content they could incorporate, the 'goodness' of the War. As they were not able to find an existentially pertinent meaning, they lost the ability to communicate what had taken place [Benjamin, 1936, p. 28].) This is why the idea of "genius loci" is so effective in relationship with the things and places that are monuments. Let us see how.

Most non-modern peoples – such as ancient Romans, Japanese Shintoists, American and Australian natives – ascribed some kind of personhood to relevant inanimate things. The Roman notion of a spirit of the place – a "genius loci" – is one such case, one that has been appropriated by contemporary Theory of Architecture (Norberg-Schulz, 1980). Contemporary research in Social Psychology and, more recently, in Evolutionary Psychology and Cognitive Neuroscience (Heberlein & Adolphs, 2004, p. 7487) names this trend 'anthropomorphism'. Anthropomorphism signifies "people's propensity to turn non-human agents into human ones" (Waytz et al., 2014; Heberlein & Adolphs, 2004; Epley et al., 2008; Epley, 2007). Anthropomorphism has manifested itself since early times, both philo- and ontogenetically. It is understood to be a strategy developed during the evolution of *homo sapiens* to comply with incomprehensible phenomena that hint at some kind of agency (Stosic et al., 2013; Heberlein & Adolphs, 2004). It also manifests itself since early childhood (Epley, 2007; Surian & Geraci, 2012; (Heberlein & Adolphs, 2004) and persists episodically in mature age (arguing with the computer, talking with pets, attributing feelings to clouds and thunderstorms) (Heberlein & Adolphs, 2004, p. 7487). Marketers frequently use it for the design of campaigns (Epley, 2007, p. 869). Some psychologists recommend it as a way to cope with loneliness (Epley et al., 2008). Unfortunately, our modern Cartesian education has cast a shadow of suspicion over such an approach

(Damásio, 1994; Gangopaghyay & Schilbach, 2012, p. 411), although contemporary research still goes back to anthropomorphism repeatedly (96 scientific articles published between 1893 and 2007 [Kwan & Fiske, 2008, p. 125] and 11 more until May 2021). It is also known that autistic children and adults show severe impairments in this process (Epley, 2007, p. 870; Heberlein & Adolphs, 2004).

Anthropomorphism, therefore, evinces itself as a heuristic and hermeneutical process inherent to human beings. Moreover, it is a pattern of human behavior that applies whenever one has to make sense of a series of events that feels hard to explain otherwise (Waytz et al., 2010).

Epley (2007, p. 866) justifies Anthropomorphism as follows:

Attributing human characteristics and motivations to nonhuman agents increases the ability to make sense of an agent's actions, reduces the uncertainty associated with an agent, and increases confidence in predictions of this agent in the future. At the very least, anthropomorphism provides a rich source of testable hypothesis to guide a person's behavior toward an unknown agent or stimulus.

And Heberlein and Adolphs (2004) add that

[...] humans evolved a propensity to anthropomorphize because failures to do so would have been more costly than over attribution.

This psychological analysis has recently been complemented by amazing evidence from the field of neuroscience. Since 1996, with the discovery of mirror neurons, evidence has been collected about mirror processes, pervasive in brain activity (for a global perspective, consider Rizzolatti et al., 2001; also Hirstein, 2005, p. 106). These mirror processes work by simulating, in the perceiving self, the same attitudes, intentions, thoughts, and feelings they imagine the other, whom the self is with, is having. This is not a rational and conscious inference process but an automatic, unconscious process (Heberlein & Adolphs, 2004; Iaconi et al., 2004). Paradoxically, mirroring others' emotions requires less brain effort than resting (measured by less blood flux) – it is the *human brain's default mode* (Iaconi et al., 2004). Functional magnetic resonance imaging (fMRI), positron emission tomography (PET), Mu-wave analysis², and other imagological procedures have shown that the majority of these processes occur in

primordial parts of the brain (limbic and paralimbic), meaning that this kind of mental process originated with the beginning of our species; the part of the brain responsible for mimicking others' gestures exists even in primates (Rizzolatti et al., 2001; Singer, 2006; Oberman, 2007; Shanton & Goldman, 2010; Kilner & Lemon, 2013). The mirror system (despite some disagreement between neuroscientists [cf. Geiger, 2019 and Behmer & Fournier, 2016; Cook et al., 2014]) typically considers three subsystems (Hirstein, 2005, pp.104-105). First, the subsystem responsible for duplicating actions – the Mirror-neuron system – which includes, according to Geiger (2019), the left and right dorsal premotor cortex, the inferior parietal lobule, the anterior part of the left and right intraparietal sulcus, and the posterior part of the superior temporal sulcus. The Mirror-neuron system enables one to mimic facial expressions, hand expressions, and body stance (consequently collaborating with the following subsystems). Secondly, the Mentalizing system (also known as Theory-of-Mind, ToM) – which is responsible for duplicating intentions, beliefs, goals, hopes, thoughts, and other mental states (this one is difficult to situate precisely, but activation happens repeatedly in the “the right superior occipital gyrus and the left parietal lobe” according to Kawata [2012], and “in the medial frontal area of the cortex, corresponding to the anterior paracingulate cortex, and the supramarginal gyrus neighboring the posterior superior temporal sulcus,” according to Fukui et al., [2006]). Finally, the Empathic system, considered by some a subpart of the brain's Mentalizing system, but located in a more interior stratus (and therefore more ancient phylogenetically), based on limbic and para-limbic structures as well as on somatosensory cortices (partially located in the anterior cingulate cortex and bilateral anterior insula). The Empathic system is responsible for duplicating others' emotions (Singer, 2006; Damásio, 2020). [Figure 1]

The Mirror-neuron system, the Mentalizing system, and the Empathic system are usually considered constitutive of the so-called Social Neural Network (Santos et al., 2009). Social Network abilities enable one to communicate with another by first replicating what the other is feeling and thinking, therefore entering the flow of communication and then answering adequately, in a way that is in tune with the expectations of the other. It has been shown, too, that the accuracy of these mirror procedures is not negligible and that it improves with self-knowledge – the more one knows about him or herself, the more one is accurate in the simulation of the mental states of the other (Eyal & Epley, 2010). Notwithstanding, these mirror processes are so automatic that they are iteratively and continuously being corrected by the input of new stimuli (Eyal & Epley, 2010; Iaconi et al., 2004; Heberlein & Adolphs, 2004).

2. “At rest, sensorimotor neurons spontaneously fire in synchrony, leading to large-amplitude electroencephalogram oscillations in the 8–13Hz (mu) frequency band.” (Oberman, 2007, p. 63)

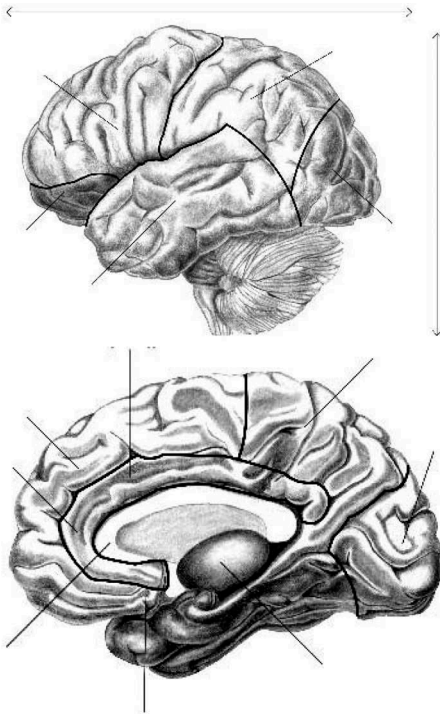


Figure 1. “At the top, lobes of the brain, lateral view. Visible are the frontal, orbitofrontal, parietal, temporal, and occipital lobes. The front of the brain (left in this diagram) is referred to as the anterior (or rostral) part, and the back is referred to as the posterior (or caudal) part. The top of the brain is referred to as the dorsal (or superior) part and the bottom as the ventral (or inferior) part. In the bottom, lobes of the brain, medial view. Visible are frontal, parietal, temporal, and occipital lobes. Also visible are the cingulate gyrus, corpus callosum, and thalamus.” (Hirstein, 2005, pp. 33,34).

Now, the brain’s Social Neural Network is not activated only by observation or conversation with another human being but also during the processes of *anthropomorphism* or personification. The same parts of the brain involved in understanding another real human are activated when anthropomorphizing a nonhuman agent (Cullen et al. 2014; Stosic et al., 2013; Waytz et al., 2010; Epley, 2007, p. 867; Heberlein & Adolphs, 2004)³. Say Waytz et al. (2010):

3. The process of conceiving a Genius Loci in order to interpret a place or pre-existing architecture is also usually complemented by a process of “storytelling”, conceding some kind of agency to the character. “Storytelling is intrinsically Mentalistic” (Yuan et al., 2018). This means that the brain processes involved in the anthropomorphism of a place or architecture are the same ones that pertain to “storytelling” (see also Hirstein, 2005, p. 163). There is not space here to delve any further into this complex issue.

Neuroimaging data demonstrated that the neural correlates of this process [anthropomorphism] are similar to those engaged when mentalizing other humans.

And Cullen et al. (2014) corroborate: “

Our data support previous work indicating a link between areas of the brain involved in attributing mental states to other humans and those involved in anthropomorphism.

3 GENIUS LOCI & DESIGN PROCESSES

Anthropomorphism is not objective. It is a second-person perspective, differing from a subjective first-person perspective wherein one inspects oneself, and differing from a third-person perspective which is objective. “[S]econd-person perspective taking requires drawing on one’s own experiences in order to ascribe mental states to another sentient being.” (Pauen, 2012) One could ordinarily say that this perspective-taking implies that you “put yourself into someone else’s shoes.” It is, therefore, an intersubjective approach. “The second-person perspective is not about what is the case in the external world, it is about what *other people believe to be* the case, what they perceive, what they are convinced of, what they feel and desire, and it is also about what their norms are.” Third-person perspective typically refers to the consideration of objects outside my body, and from which I take a rational view, stripped of any empathy with the object, conditioned by some kind of impartial methodology, never imparting to the object any sentient abilities. The scientific approach is the clearest example of this perspective.

Although the scientific approach is the most sanctioned for acquiring knowledge, there are many objects to which this envisage is not appropriate: all those objects that require a subjective perspective to exist or be understood. Architecture is such a case. Without the presence of a subject, of a person, it is impossible to acknowledge a piece of architecture, a piece to which one accords a value to the degree that one deems it “real architecture,” not just simply “a straightforward building.” To declare something “real architecture” requires the experience, in a person, of a particular effect – the apposite effect of architecture. Only humanity can identify architecture.

A second-person perspective is, therefore, the only suitable to architecture and to designing architecture. However, most of the time, the architect adopts only a first-person perspective without realizing whether to understand the pre-existent place or design a new solution. They think only of what pleases them. The expected consequence is that the common dweller, who does not have

the refinement of architects, does not feel they fit into those new places. They reject it, may have, episodically, just an aesthetic appreciation of it, due to its novelty, and, once this novelty is lost, they begin to change it by the elapse of time. Therefore, the second-person perspective is the only possibly proper approach to architecture, both in understanding the pre-existent and designing a new solution. This requires, of course, being very careful and demanding towards oneself in looking for a kind of intersubjectivity that is common both to architects and inhabitants, an intersubjectivity that matches the dwellers' expectations. Here pertain the processes of anthropomorphism that have been argued previously, either for their natural character and convenience, but always with attention to effective intersubjectivity.

Moreover, the architectural design process is a process of trial and error (Pareyson, 1960; Jones, 1978)⁴. The non-practical contribution one can do to strengthen the efficiency of this process is double: giving operative criteria (to judge about the "error"); and facilitating an increase of culture, which may trigger an increase in creativity (Cross, 2006) (in order to favor more attempts, more "trials"). The genius loci strategy accomplishes both. Acquiring knowledge of architecture from a second-person perspective is easier and allows for more and more available memory of past experiences, thus for more culture. Considering the pre-existent genius loci as a synthesis of the criteria eases the comparison between the criteria and the idea for the new design. Having contrived a genius loci, design is like dialoguing with a loved one.

Let us also consider that the notion of "genius loci" is part of the 'image,' not of the 'metaphor,' realm: a metaphor, even a surprising, nuanced one, works within the sphere of words and language, which is strictly rational and requires no explanation; an 'image,' however, comes from an imaginary, fantasy world and, as such, is non-limited; whereas a 'metaphor' is self-circumscribed, an 'image' is both aggregating and centrifugal; it calls for "rhizomatic" hermeneutics in which comprehension ensues from the gradually-emerging path of a process of interpretation (Bachelard, 1957, ch. III, subch. I e II).

Genius Loci's strategy for grasping meaning supports different individual approaches and paths – namely in the circumstance where intervention is to be made on a pre-existing monument – while ensuring that all single interpretations are part of an

intersubjective whole, which prevents mutual contradiction and guarantees interpersonal communication.

The concept of "genius loci" is, as such, able to synthetically and comprehensively describe what the piece of architecture or place in question is *for me*; it 'tunes me in' with it, establishing a kind of 'mood transfer.' Recognizing the "genius loci" of a place or thing, which implies its anthropomorphizing, reveals to me what 'goodness' it has to give me and the proper way to interact with it.

On the other hand, neither the inventory of formal components of an object or place nor the knowledge of its history and production process can ever, by itself, grant access to its *for-me*, to its unique memory value, to the importance of that monument to the Self. Why not? All rationalist knowledge is processed through categories or classes, through general qualities, through recognizing in the studied object the same characteristics already identified in previously studied objects – which qualities it has in common with them, which ones it does not. But this method is useless in finding out what it is, in the object in question, that makes for a specific irreplaceable relationship – both unique and necessary – that is non-categorical, quasi-human, and that renders it worthy of memory, i.e., a monument. An analytical interpretation of Heritage is therefore insufficient. A deeper consideration of human perception shows that one can perceive only that of which they understand the meaning (Merleau-Ponty, 1945). Human perception is like a search engine for meaning, continuously trying to apply its internal matrix of meaning, of the various *for-me*, to the world. Multiple experiments demonstrate how physiological perception of the components of reality is fully determined by the interpretation one can give to what is being seen. In the absence of meaning, people merely hear sounds – not words – and see blobs – not pictures. Not getting the meaning is like being in a foreign country and hearing nothing but indistinct, irreplicable gabble. Since human perception is particularly attuned to interpersonal relationships, anthropomorphizing an inanimate object can facilitate recognizing the existential contents of that object. Through thoughtful consideration of that person-like identity, one can thereafter point out the material features that convey it – with much more in-depth conclusions than what an analytical comparison with same-class objects could generate – just in the same way as knowing someone's character and temperament enables an easier grasp of their facial features, grimaces, and particular intonations.

The following text and images is a practical illustration of the process we have attempted to describe and explain, with its phenomenological and cognitive peculiarities. Be warned, though, that here the discourse loses its logical scope and phenomenological substance. The following images have an intrinsic poetical nature. One could admit the

4. This subject deserves a careful examination, similar to the one that has been done on the concept of "Genius Loci": revising the Psychological descriptions of the process, and attending to the neural processes involved, other than considering the specialist literature of the field. However, the demand to keep with a single line of thought does not allow to that here.

possibility of picturing the “genius loci” of this place in another way, but, still, this one is sufficiently effective to explain the intersubjective experience of the place.

Cais do Ginjal (Ginjal Quay) is on the southern bank of the river Tagus, facing Lisbon. Until the late 1960’s it was bustling with life because it received all the agricultural production from the South of Portugal, which was then shipped to Lisbon. The quay lost its purpose and fell into ruins upon constructing the bridge over the Tagus (inaugurated in 1966). Nevertheless, it is a rather poetic place: always in shadow because of the northern-facing steep cliffs, but always facing a shiny and sunny Lisbon, with only the wide and peaceful waters of the Tagus in between.

Discerning the “genius loci” of the place enabled acquiring intersubjective parameters for any intervention on it. The “genius loci” was imagined as a 50-year-old unemployed cooper that worked there [Figure 2]. The cooper was very skilled and in his prime when he became unemployed by the end of the 1960s due to the bridge that consequently made the Quay obsolete. Therefore, this genius loci is a rather melancholic fellow, dressed with stained, old working clothes, with long hair and a beard, resembling an old hippie (after all, it was the late sixties when the cooper was in his twenties). And what is the attractiveness of such a repulsive figure? Imagine you had a rough day at work. Imagine your boss or professor annihilated your work (a work that caused you so much fatigue), maybe even humiliating you. You are sad, melancholic, disorientated. “What shall I do? I did my best...” Who knows why you decide to take a walk into Ginjal Quay. And then what? First, you feel understood and embraced by that melancholic place: by its shadows, by its dampness, by its ruins – it’s the good old unemployed cooper accompanying you in your suffering. “I know your pain; I have felt it myself,” – he whispers. Someone understands you and is in solidarity with you. This is the first aspect of the ‘goodness’ delivered by the place. But then, while you are walking, just looking at your feet, you notice some brilliance in the corner of your eye – the most southern parts of the longer piers have sun illuminating them. And when you automatically lift your gaze, just a little, to inspect those bright spots, you notice the river, wide and even more brilliant. It was the cooper lifting your chin like a father does to his crying child. Finally, as if pulled by the beauty of the seascape, you look directly southwards, and you see the city – white and sunny Lisbon. And you again hear the cooper whispering: “You see? There’s a bright future for you over there—a whole new set of opportunities in that buzzing city. Your time will come. Don’t worry.” And you regain hope.

Now consider the possibility of a small intervention in the place: a bench on the pier, for instance, from which Lisbon could be contemplated. One would say that it should not use natural materials – not wood, or



Figure 2. Genius loci of Ginjal Quay (drawing of André Pereira, according to author’s guidelines).

rattan, or artisanal ceramics – it would not match the industrial background. Nevertheless, not even industrial materials – glass or stainless steel, or even weathering steel – would be able to comply with the genius loci personality; those materials would be much too shiny and sophisticated. It would be more appropriate, therefore, to use worn-out materials, like rusty cast iron, grey oxidized wood, or even broken pieces of hydraulic mosaic [Figure 3]. An environment built like that would fit the genius loci. Now, if one were asked to design a bench: it might be something round and rusty, like a sheet of lead deformed by weight, resembling the old cooper himself... [Figure 4]. Something proper to the place’s persona.

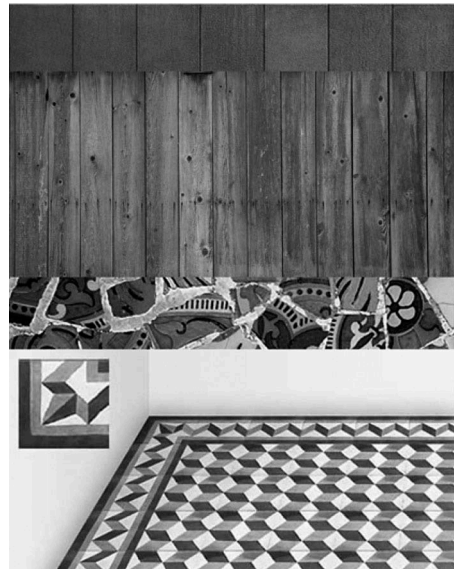


Figure 3



Figure 4

4 THE FACE OF THE PLACE

Identifying the “genius loci” or “genii loci” (spirits of the place) allows for the identification of the formal features –the place or piece of architecture – which convey its memorial meaning, its monumental significance, and which lead to an adequate intervention. It enables discernment about which features are to be preserved, which are to be suppressed (because they are hindering perception of the place’s meaning), what to add, and how (to render meaning more accessible). There is no place for burdensome authorial subjectivism – which is so common nowadays – nor awkward stylistic submission – as used to be the case for state-led interventions – since the whole project is rooted in a deeply intersubjective way of knowing. It secures effective, competent Heritage preservation, which no longer leaves monuments at the mercy of feeble technical injunctions, such as minimal intervention and reversibility-based approaches. In this way, we can enable monuments (Heritage) – as both works of architecture and places, handcrafted and artistic objects with memory value – to fulfill their purpose, which is, as Heidegger tells us in the opening quotation, “to give to things their face,” that is, to reveal the happiness-promising human relationship they are offering us and, through that relationship, to give “men their outlook on themselves,” i.e., the critical, mature self-awareness that allows for fruitful engagement in society – social, political and cultural.

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Urban-architectural perception as creation between mind and emotion

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ABSTRACT: Urban-architectural perception is a permanent state of the human being. We are born in urban-architectural space; we live in it, walk, sleep and work sheltered by built boundaries. Our apprehension of the environment is a continuous and creative process that engages our senses, evokes our previous experiences, triggers our reasoning. Architectural and urban spaces are co-created by the observer in his mental and experienced realms and grasped as Tschumi's Labyrinth and Pyramid. This chapter discusses architectural perception in experiential and mental realms and explores how this complex and creative process bridges the body-mind dichotomy. Due to its multidimensional nature, the work suggests that urban-architectural space and its perception are vessels for fusing emotions and the reason.

Keywords: Architectural perception, Urban-architectural space, Body, Mind, Emotion

1 PYRAMID AND LABYRINTH – CONCEPT AND PERCEPT

Humans can be involved with space differently – more mentally or more sensitively. One can relate to it through an abstract construction of his minds, - that Tschumi (1996) calls Pyramid; or throughout a phenomenological involvement of his sensible body with the environment - Tschumi's Labyrinth.

These two Tschumi's theoretical models, which are the research's focus, point out a dispute of body-mind separation rooted in Descartes' objectivism.

...seeing that our senses sometimes deceive us, I was willing to suppose that there existed nothing really such as they presented to us (Descartes, 1967, p. 27, par. 1)

While the concept of the Pyramid exists as a construct of the human mind and as an abstract idea, the concept of Labyrinth refers not only to the mental image of the elaborated structure of roads whose end is not directly intelligible but also to the experience that one has while walking through them. The first one follows Descartes' rationalism based on the belief that we can get to know the truth about the phenomenal objective world by detached observation. The second one is closer to Giambattista Vico's theory which recognizes the imaginative and poetic operations of the human mind as important to access an inward aspect of things not possible to be explained by Aristotelian mathematical logic (Leach 1976, p. 4-5).

Space is real, for it seems to affect my senses long before my reason. The materiality of my body both coincides with and struggles with the materiality of space. My body carries in itself spatial properties and spatial determination: up, down, right, left, symmetry, dissymmetry. It hears as much as it sees. (Tschumi, 1996, p. 39, par. 1)

The Labyrinth is concerned with direct in-place experience and sensations of the body while perceiving urban-architectural space (Tschumi, 2004). In the Labyrinth of experience, our sensations and feelings are accentuated and there is no map or general overview that would help us to go out of it. We are there and only there. While in a Labyrinth, we can never know if we are outside or inside it and if the openings that are appearing on the way may lead us outside or deeper inside (ibid). Once we grasp the Labyrinth's form and understand it as a whole, the idea of Labyrinth disappears.

Indeed, architecture constitutes the reality of experience while this reality gets in the way of the overall vision. Architecture constitutes the abstraction of absolute truth, while this very truth gets in the way of feeling. We cannot both experience and think that we experience. The concept of dog does not bark; the concept of space is not in space. (Tschumi, 1996, p. 47, 48)

Different from the Labyrinth, the concept of Pyramid exists as a *cosa mentale*, it is a cognitive

process of creation of an abstract idea from the inputs of experience.

2 SEPARATION AND RECONCILIATION BETWEEN MIND AND EMOTION

As pointed by Foucault (2008), in the Middle Ages and before the appearance of the positivistic approach, space was a place occupied by a body; it was a local of emplacement, a hierarchic ensemble of sacred places and profane places, protected and open places. In medieval Lisbon, streets as conceptual entities did not exist, they were mere paths that one used when moving from one place to another. What was important, and like that deserved to be given a name, were experiential spaces linked to specific functions, such as squares in front of churches or markets (Carita, 1999).

This notion of emplacement will be gradually opened starting with Galileo (1564-1641) and the discovery of infinity after which the middle age Place will be dissolved (Foucault, 2008). Instead of the experiential place occupied by the human body, space started being oriented towards one's target and the abstract cardinal directions.

This transition from experienced toward conceptualized space occurred within the whole spirit of the time in Hegelian terms. The change in the capacity of spatial abstraction that occurred in that period led not only the different ways of producing and representing space but to the new manner of its experimentation. In Portuguese urban and architectural practice this transition was gradually introduced through investigation and developments that have been accomplished in cartography, cosmography, mathematic, astronomy, and astrology. At the end of XV and the beginning of the XVI century, these sciences reached a high level of prosperity and were tightly linked to the development of capacities of abstraction and arithmetization, which are going to be foundations for upcoming modern thinking (Carita, 1999, p.136). Treaties about geometry written by Gaspar Nicolás (1519) and Luca Pacioli show prevail of the rational mind that is going to grow into the future positivism.

With positivism, prevail of reason over the body and therefore over emotions and bodily experience became one of the main characteristics of the scientific method.

I considered that the very same thoughts (presentations) which we experience when awake may also be experienced when we are asleep, while there is at that time not one of them true, I supposed that all the objects (presentations) that had ever entered into my mind when awake, had in them no more truth than the illusions of my dreams. (Descartes, 1967, p. 27, par. 1)

Differently, the contemporary scientific method proposes a change of this paradigm letting ambiguity, fussiness, vagueness, and uncertainty be part of logic and of scientific reason (Cintula, Fermüller and Noguera, 2017). Zadeh (1965), in his fuzzy logic, introduces a degree of truth to prepositions which is not possible in the traditional true-false rationalization of reality. This line of thought enabled the existence of 'it is almost true' (Hájek and Novák, 2003) in mathematical logic opening a way for acceptance of vagueness and uncertainty as part of scientific reasoning.

In the last decades, the hegemony of Descartes's body-mind dichotomy is abandoned. Emotions are not any longer seen in terms of the duality of body and mind but as an essential part of our humanly specific reasoning that accounts for the sense of personal future, social convention, and moral principle. Altogether, the body, emotions, feelings, and reason are seen as intertwined processes that shape our behavior (Damasio, 1995, p.XII). Our relating toward space does not happen merely as a cognitive process, it is substantiated in our bodily state and emotion/feeling framework.

3 PERCEPTION AS CREATION

Urban and architectural spaces significantly influence our emotional state. On the other hand, our emotional state conditions the way we perceive and understand urban-architectural space.

The recent development of neuroscience and technologies allowed us to have an insight into the functioning of the human brain and we got a possibility to scratch the hitherto unknown and unapproachable world of human consciousness, feelings, and emotions.

Spatial cognition is a meaning-making process that starts with a low-level perception of raw sensory information which is further processed by our high-level perception. The high-level perception, the one through which we make sense of environmental stimuli, is very flexible, meaning that the same set of inputs can be perceived differently depending on the context, perceiver, and his or her state of mind and body (Chalmers, French and Hofstadter, 1992, p. 2, 3). Our perception is shaped by our beliefs, goals, external context (1992, p. 3).

At a higher level, if we encounter somebody dressed in tuxedo and bow-tie, our perception of them may differ depending on whether we encounter them at a formal ball or at the beach. (1992, p. 3, par. 4).

Spatial cognition is influenced by our previous experiences, memories, and our personality. What kind of connotation, positive or negative one gives to an extremely broad space will also depend on

a person's character. The phenomenon which to someone might evoke the emotion of freedom to someone else could represent a threat (Arnheim, 1977). Perception and cognition of 'spaciousness' or 'spatial containment' will as well be contingent on various pre-established conditions such as the cultural context or individual predispositions that are shaping our reasoning. For example, the concept of 'spaciousness', within the context of an American city, cannot be compared with European or Asian ones.

The same way we are born into the language we are born into the spatial context. Our contextually influenced, and therefore almost intrinsic concept of space, will be present as a reference to which we understand and value new realities. Wherever we go, we take our baseline as a reference with us. We could therefore say that broadness of what surrounds us is measured, not only concerning the size of the human body but the size of our preexisting mental images and schemas. What is inner to us influences our perception of what is outside of us.

The inseparability between our condition and what we observe is what Relph denominates as 'sense of place', which differs from 'spirit of place' that lies principally outside us. Sense of place lies primarily inside us as an individual and inter-subjective quality, connected to a community, personal memory, and self. It is a synesthetic faculty that combines sight, hearing, smell, movement, touch, imagination, purpose, and anticipation and it is variable from person to person (Relph, 2008).

In his account on environmental psychology Terlutter (2001) emphasizes that there are differences in personalities that significantly influence users' emotional responses toward the environment and further shape their behaviors. Physically similar spaces when lived by different people are experienced differently. Some of the most important personal differences that determine behavioral tendency are arousal-seeking or non-seeking predispositions (Terlutter, 2001). As designers and researchers, we should be aware of these differences between personalities since they can help us grasp the variety of users for whom we are designing.

When we pass from the global cultural and personal psychological contexts to the urban one, the spatial perception is being built on a different level of abstraction. The perception of a specific urban space accounts for the experiential reality of the network of urban spaces. When apprehended within dissimilar contexts, open spaces of the same size can be perceived differently. For example, the averagely open space may seem more open if situated in tighter surroundings and vice versa. This means that aside from our personal preconditions and our context's references, the perception of our built surroundings also depends on the comparisons that one makes as he experiences a sequence of open public spaces.

Through the process of perceiving, one makes a passage from a global idea towards a specific one.

A direct embodiment reshapes and changes our existing mental images adapting them to new realities. We are constantly adjusting and reshaping our perceptual frameworks. On one level we preserving our intrinsic schemas as perceptual and experiential background, on the other, we are gradually adjusting our pre-established schema to the new experiences.

By apprehending a 'particular city' we are constantly adjusting and shaping the concept of 'the city' we have always had and kept in our mind. By experiencing particular we are re-experiencing the 'whole' (wholeness of the 'concept of city') and the 'all' ('all the cities' that have been previously inscribed in our mental condition). By moving and perceiving surroundings, our mental images of the space and its abstract boundaries are constantly being reconstructed.

This reframing of our perceptual background which allows new experience to happen, is visible in the moment when we pass from one neighborhood to the other. If spaces are significantly different in perceptual terms, regarding for example openness or brightness, we feel this contrast at first as kind of experiential shock to which gradually we get used to later. By getting used to new situations we are constantly adjusting our mental schemas so it permits us entering into details of specific place more subtly. By being in place we are adjusting ourselves to the place that we are creating at the same time.

4 ARCHITECTURAL PERCEPTION BETWEEN MIND AND EMOTIONS

Several authors approached differently the problem of emotion in architectural and urban disciplines. In his book about the social life of small urban spaces, Whyte (1980) proposed that what should be observed as an indicator of positive feeling toward the city's space are users' smiles. Do people smile? Where do they smile and why? He raised a question how can a city contribute to that happiness by offering spaces that are healthy and where people like to pass and like to be? (1980, p. 6) The emotions triggered by the architectural and urban stimulus are known as affective responses to the spatial properties which Franz (2005) calls affective qualities. In his dissertation Franz argues that relation between spatial properties and produced emotional states or affective responses is established through the affective qualities. He explains that affective response to specific stimuli can be for example 'pleasure' while affective quality responsible for such a response is 'pleasingness'. When we have a response such as an arousal, the quality behind it is 'arousingness' (Franz 2005). These qualities correspond to the PAD model (focused on Pleasingness, Arousingness, and Dominance) which is developed by Mehrabian and Russell in 1974 and broadly used in many architectural and environmental studies. Franz further

discusses that aesthetic qualities are different from affective ones since they are deliberate or cognitive responses to a formal stimulus following our “(internalized) aesthetic evaluation code” (2005, p. 29, par. 2). The aesthetic quality is grasped when the mind reflects over emotional stimuli of affective quality. A similar distinction between a mere emotional state and the one that involves cognition, Damasio finds in the difference between emotions and feelings. When space or other stimuli influences our body state, we are experiencing emotions. Only by our intentional observation of those changes and by being aware of them do we actually feel. While emotions are directly linked to the body change, the feeling is completed by cognitive processes.

That process of continuous monitoring, that experience of what your body is doing while thoughts about specific contents roll by, is the essence of what I call a feeling (Damasio, 1995, pp. 145-146, par. 1).

Damasio’s differentiation between emotions and feelings can be used to unveil the difference between affective and aesthetical experience as defined by Franz. If we look simultaneously to Franz’s distinction of affective and aesthetic qualities and Damasio’s emotions and feelings, we could infer that emotions would be responsible for the immediate affective response while feelings together with cognition for the more complex aesthetic contemplation.

There are important works done in the field of human consciousness that are starting to understand universals of aesthetic experience. Based on his neuroscience experiments, Ramachandran made an important contribution in the understanding of aesthetic experience and patterns in what is in experiencing art pleasing us (Ramachandran and Hirstein, 1999).

5 FINAL CONSIDERATIONS

As shown, the reception of architectural space is a complex phenomenon. It overlaps various human-space aspects that are experienced simultaneously generating in every moment alive and unique creation. When we think of the city and its architecture, their creation as living phenomena is being constructed equally in the realm of our mind and our direct experience.

For example, a city is at the same time an abstract and a concrete idea. The borders, proportions, and shapes of its neighborhoods, are properties that one cannot directly experience in situ and those properties are present in our cognition each time we think of that city we know. Through maps, transportation and development diagrams, satellite views, we got to possess a conceptual idea of the objective but for us

intangible reality. On the other side, there is a sensational deposit that we are daily gaining by ‘labyrinth’ interplay with the city. We know its color, its light, soundscape; we can recognize its sky, smell, or wind. On the other, there is an objective ‘pyramid’ idea we learned and mentally constructed about the city. In our minds, we can easily recall them both – an abstract map of the regular Cerdà’s Barcelona or entropic sensation of Barcelona’s street life in the liveliest street of Spain, Las Ramblas. The passage through the city is a passage through the parallax where the human and space are constantly changing each other. As one inseparable unity, the human-space is being permanently redefined and rediscovered.

This difference between an abstract and a tangible idea is where Tuan (1977) draws the line between ‘space’ and ‘place’. City space is, according to him, an abstract term for a complex set of ideas that lies at the conceptual end of the experiential continuum that by our direct involvement becomes a place. Our actions and movements are turning the intangible idea of space into a concrete place. By perceiving and experiencing we are co-creating our living boundaries.

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The path of senses, between emotions and creation

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ABSTRACT: This text engages in the characteristic of the urban and architectonic space as a provider of emotions. Through Pallasmaa's, Hertzberger's, Zumthor's, Holl's, and Cullen's thoughts, among other authors, it demonstrates how architecture and the urban space allow us to obtain an environmental experience through sensations and emotions that become content and meaning for the proposal of new spaces. It presents a didactic exercise of the grounding cycle of the Architecture and Urbanism Course at the Federal University of Paraná - UFPR, which aims to elaborate a model whose spaces and shapes reveal sensations and emotions perceived in the urban space through observation drawings. It discusses the importance of spatial perception, observation drawings, and shape composition contents in the architect and urbanist's professional qualification process. It emphasizes the use of models in teaching-learning in architecture as a creativity exercise, spatial qualities materialization, and a way of reflecting on ideas. It exemplifies the work process through photos of the students' works. It reflects in the final considerations about the importance of a didactical exercise in the teaching of Architecture and Urbanism that allows the perception and conceptualization of space as the essence of thinking and making architecture, starting in the first steps of the academic education.

Keywords: Architecture and Urbanism, Study of shapes, Creativity, Sensations, Emotions

1 INTRODUCTION

Architecture is part of human life, and we all experience it even before knowing the word architecture. Swiss architect Peter Zumthor reminds us that this knowledge is in our first experiences: our bedroom, our street, our neighborhood, our landscape, and that that way, we unconsciously experience them to later compare them with the houses, cities, and landscapes that join our life, therefore: The roots of our architectonic understanding are found in our childhood, in our youth: they are found in our biography (Zumthor, 2009, p.65).

Believing this, we understand that architecture transforms and influences our perception of the world and practically all that composes it. We are exposed to knowing and discovering new buildings, new places and, mainly because of this, we are constantly exposed to the possibilities of sensorial experiences.

When we are situated in space, we develop a series of physiological and psychological mechanisms that allow us to capture these surroundings and understand how this place is and what we can find and do in it.

The received sensations are transformed in content and meaning that makes us recognize, compare and explore the space and experience sensations and emotions. In summary, it is about obtaining an environmental experience:

By crossing the space of a city, we move through a web of moving overlapping perspectives. As our body advances, views open and close, perspectives pulse. The abrupt movement of objects, walls and buildings, far and near, reveals a changing landscape [...] The ride evokes a significant quantity of spontaneous experiences that intertwine in the urban space. In the complex spaces of the modern city, buildings are not so much objects as much as partial visions that form a continuum in perspective (Holl, 1997, p. 12).¹

We live, that way, the space experience. The word experience derives from the Latin term "experientia," whose meaning "experienced" is related to ability, an individual's practice. Since antiquity, however, new concepts were aggregated to this word that, in current times, is starting to be called "living," that is, the set of feelings, affections, emotions, etc., that individual experiences and that accumulate in their memory (Mora, 1998). In this sense, Pallasmaa reinforces that:

Every moving experience with architecture is multisensorial; the space, matter, and scale characteristics are measured equally by our eyes, ears, nose, skin, tongue, bones, and

1. All translations are the authors' unless otherwise stated.

muscles. Architecture reinforces the existential experience, our feeling of belonging to the world, and this is essentially an experience that reinforces the personal identity. Instead of mere vision, or the five classical senses, architecture involves many spheres of sensorial experience that interact and merge with themselves (Pallasmaa, 2011, p. 39).

Therefore, space perceptions do not consist only of what we can see but also what we hear, feel, and even smell.

This way, architectonic spaces and city spaces can show the invisible, which we cannot see, awakening associations of which we were previously unaware (Hertzberger, 1999).

Because it immediately involves our sensorial perceptions, architecture becomes a complete art. The passage of time by architecture – the time of its path – transforms the elements which are part of it, such as material, texture, light, shadow, color, creating an explosion of experiences and intelligible senses in those who enjoy it. So, according to Pallasmaa:

A building is not an end by itself; it frames, articulates, structures, gives importance, relates, separates, joins, facilitates, and prohibits. That way, authentic architecture experiences consist, for example, of approaching or confronting a building, formally appropriating a façade; by looking inside outside a window, instead of looking at the window only as a material object; or by occupying the heated space, instead of looking at the fireplace as a visual design object. The architectonic space is a lived and not a mere physical space; lived spaces always transcend geometry and measurability (Pallasmaa, 2011, p. 60).

Moreover, those who design it? What do those that make architecture think? Rasmussen (2002, p. 9) affirms that the architect is a sort of theatrical producer, the man that plans scenarios for our lives.

The architect must, then, design spaces capable of offering interactive experiences among all the human senses through the choice of materials and their relation with the place. The use of colors and light can reflect in people's moods, influencing their state of mind. The essence of light, touch, vision, smell, and sound is crucial to explore architecture designs.

Going in this direction in this text, we present a didactic experience in the Architecture and Urbanism course at UFPR, which has as fundament the use of creativity from reading the urban and natural space, full of meanings and emotions.

Teaching architecture to young students is not an easy task. How do we teach the concept of solid,

viable, and concrete ideas to students that enter university with different panoramas, perspectives, references, and sensibilities?

Given the inevitable complexity context of teaching architecture, the distancing between the concept and the actual object, and the diversity of methods, a didactic exercise is a form of fixing the knowledge of a discipline. Chervel explains that:

Without exercise and its control, there is no possible fixation of a discipline. The success of disciplines fundamentally depends on the quality of the exercise they can render (Chervel, 1990, p. 24).

The basis of the exercises is the programmatic contents. Contents are considered by Chervel (1990) as the most important element of a discipline. It is the central component, the internal structure, and its original configuration.

The contents that constitute this specific exercise are part of the National Curricular Guidelines of the teaching of Architecture and Urbanism in Brazil as knowledge of the grounding cycle, comprising drawing, the study of shapes, and tridimensional composition, besides spatial perception, perspective, color, and materials harmony and model making. Furthermore, this exercise proposes the debate on each apprentice's emotions and their utilization to create new spaces.

2 PATH OF SENSES: A DIDACTIC EXPERIENCE

Path of senses is the denomination of a didactic exercise, developed in the Studies of Shape discipline in the first year of the Architecture and Urbanism course at UFPR, as an instrument of evaluation of learning of the programmatic contents of the discipline and consists in the proposal of an architectonic space represented by a volumetric element, a model.

The general objectives can be summarized in applying grounding knowledge, especially the development of spatial perception and the reading of specific urban spaces and buildings in their various degrees of complexity. Specific objectives allow the study, analysis, and realization of plastic proposals, involving sensations, emotion, and symbolic, affective, and ergonomic factors related to architectonic spaces.

3 EXERCISE DEVELOPMENT

The exercise is constituted of two phases. The first phase of the exercise seeks to perceive urban and architectonic space through observation drawings of a particular path. The second phase consists of

a design exercise, which results in a model in which the imaginary user experiences a sensory experience by walking in a path defined by architectonic elements and spaces, resulting from the perception from the previous phase. The path of senses is the dialectical transposition of the concrete reality perceived by the student through drawings to the imagining and creation of the new.

3.1 Phase 1 – The perception of space

This first phase of the exercise consists of theoretical knowledge about the theme of perception of the urban space and the building and space analysis by making sequential observation drawings.

After comprehending the basic notions of observation drawing in the studio, the students, like gauging measures, proportions, and perspective relations, roam the city making sequential drawings from various points of view (Figure 1).

The observation drawing in this phase provides a thorough perception of the urban space, full of varied elements like buildings, vegetation, people, streets, and sidewalks organized in a structured system of a projective character in perspective.



Figure 1. Students drawing the urban space of a historical city. Source: Author's photo and editing, 2021.

For the perception of their sequential movement, students must register some connecting elements between the drawings. This means that each drawing made contains visual elements of the immediately previous and subsequent drawings, such that the succession of points of view in the path can be recognized.

The choice of paths results in a rich diversity of images and relates to the predefinition and knowledge that each student has of the city, according to their relation to it, their staying time (whether they live or not in the city), the meanings and memories each brings along and consequently the emotions these spaces cause. Some paths are urban, others are in city parks, others inside a building, or even in a low-income area in the suburbs, a cemetery, or an avenue.



Figure 2. Drawing of the urban space of a historical city made by a student. Source: Author's photo and editing, 2021.

The drawings reveal an interesting variety of visual elements, such as focal points, contrast between buildings and the empty spaces of the streets and squares, the dimensions of the buildings and urban equipment, colors, light, the presence or absence of people and automobiles, and other visual impacts that give life to the path (Figure 2). Others reveal a certain monotony, given the repetition of elements, the predictable and easily assimilable linearity, or the weak impact offered by the images. Anyway, spaces evoke emotions.

Pallasmaa (2018) reminds us that the experience of a place or space is always a curious exchange because “as I set myself in a space, the space sets itself in me. I live in a city, and it lives inside me”. The landscapes and buildings are emotion amplifiers. Thus, the lived space, whether consciously or not, has meanings.

The observation drawings instigate these meanings, as the urban spaces are thoroughly and carefully perceived to be represented. In this sense, Pallasmaa explains that:

Usually, the image is considered a fixed and purely visual figure, although a characteristic quality of the senses is their tendency to fuse and integrate; a visual image is always accompanied by repercussions that connote experiences in other modes of sense. Besides, there are images in the dominions of all senses. The visual image itself is a fusion built from fragmented and discontinued objects of perception (Pallasmaa, 2013, p. 50).

One of the premises of this work phase is found in the idea of space as a provider of emotions, explained by Cullen when he states:

Beyond its utility, the vision has the power of invoking our reminiscences and experiences, with all their corollary of emotions, a fact that can be taken advantage of to create extremely intense fruition situations (1970, p. 10).

In the search for understanding how emotional reactions evoked by the environment are processed, this author considers three aspects:

- Optical (from movement): the perception of space as a succession of surprises or sudden revelations resulting from serial vision. Emotions are revealed according to the contrast between spaces; our brain reacts to visual differences caused by various urban landscape elements.
- Local: reactions towards the position in space, the instinctive and continuous relationship of our body with the environment, the sense of localization, identification, or tuning. The localization factor allows the perception of the city as an eminently plastic experience, with its compression and empty zones, the contrast between open and delimited spaces, alternated situations of tension and tranquility.
- Content: the physical constitution of the city, its colors, textures, scales, styles, nature, personality, and everything that individualizes it. This factor relates to the various aspects, like the city’s geographical situation, size, culture, and history (Cullen, 1970, pp. 11-13).

The author denominates this form of perceiving the city as the *art of relationship*. They are all

elements that compete for the creation of an environment, buildings, streets, sidewalks, traffic, trees, water, and others that, in their entertainment, compete to arouse emotion or interest: “a city is before all a thrilling occurrence in the environment” (Cullen, 1970, p. 10).

3.2 Phase 2 – The design

After the drawings were made, the second phase was initiated in the design studio: elaborating a volume as the result of the study and manipulation of shapes. Starting from the perception of space and the evoked emotional reactions, the student proposes new shapes and architectonic elements, which result in a path and provide the same sensitive experience to an imaginary passerby. In other words, the sensations created by new elements and architectonic shapes come from the perception of an existing path, traveled in the first phase, and allows the exercise of creativity and plastic expression by the student.

The land over which the volume is designed in this phase is fictitious and has pre-defined dimensions as parameters considered by the students. Being fictitious land, the student does not consider relations with the surroundings; the neighborhood or the city only develops a compositive process over flat terrain from guidelines recognized in the first phase, given the perception of reality, imputing the emotions previously felt to the new volumetric object, through the relationship between shapes, internal-external space, circulation, lighting, used materials, etc.

Several authors have affirmed that Architecture or even no forms of Art emerge from nothing; they always emerge from something. All human works are combinatory, which means that they are all artifacts composed from a selection and a combination of preexisting elements. Steiner (2003) explains that divine or astrophysical creation “from nothing” is very problematic. It is an option unavailable to humans. We create, thus, from references/ideas collected in our experience. So, as Ostrower affirms,

Whichever the occupation area, creativity is elaborated in our capacity of selecting, relating, and integrating data from the internal and external world, transforming them to route them with a whole meaning. We seek to reach the amplest and most precise form inside of our possibilities, the most expressive. By transforming matter, we act, do. The existential experiences – creation processes – involve us in the globality, our sensitive being, the thinking being, and the acting being (Ostrower, 2004, p. 69).

The perception of sensations that some concrete spaces cause, whether built or natural, is typical and

coincidental among the students. Nevertheless, the result of each one's work reveals differences in many aspects: general concept, party choice, plasticity, option and use of materials, a form of representation, ideas development process, relationship with colleagues and professors, and even in the way they manage their time and discipline themselves.

Following, we will describe some works that help clarify the process.

After going through the path in a city park, the students made observation drawings in more interest points. They affirmed having perceived feelings of inferiority, insecurity, fear, and curiosity when entering a tunnel that crosses a hill after the tranquility of the sinuous path that precedes it. Coming out of the tunnel, the main described feeling was of freedom and revelation faced with the immensity of the lake and protection given the existence of a rock wall from an old quarry. In this case, three well-defined phases of the path were perceived: before the tunnel (tranquility, mystery), inside the tunnel (suffocation, inferiority, insecurity, and curiosity), and after the tunnel (freedom and protection).

In the students' words: *the path begins with a trail surrounded by trees that block the view of what comes next. As nature becomes scarce, we are faced with another barrier: a rock wall, with a tunnel as the only way of passing through and whose access is by a bridge. The first feeling is fear. Darkness and the impression that the path has no way out generate discomfort and suffocation that disappear as soon as we enter the tunnel; we see continuity. At the end of the path, we come to a third environment, ample and clear, which gives the sensation of freedom.*

Throughout the process, the students experiment with several possibilities of plastic solutions. For the first moment in the park path, a student solved, in his work (Figure 3), the sensation of mystery with the use of vertical intercalated plaques that, at the same time they steer the user, prevent them from seeing what is ahead. The feeling of suffocation occurs when faced with a large wall and a small entrance inside, with a slight rise and a very dark and narrow environment. Externally, the tunnel is represented by a series of blocks with decreasing size, giving a notion of depth.

Even with similar sensations, like those from the moment of passing through the park's tunnel (fear, suffocation, discomfort, tension, anxiety), each student developed different ways of expressing them in the language of shapes. One student opted for non-linear paths and proposed the incidence of light on spaces by using different translucent elements. Another student opted for four cubic spaces of the same size, united by a linear circulation, and used different materials from opaque to transparent. Another one composed different volumes and

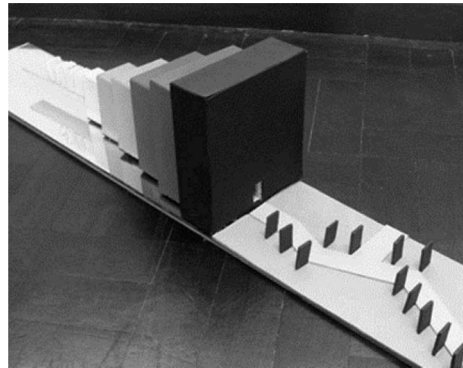


Figure 3. Student's work, path of senses. Source: Author's photo and editing, 2021.

worked with the contraposition of translucent elements and solid walls. It guaranteed a perfect unity to the ensemble, given the same pattern in the used elements (Figure 4).

Anyway, the students experienced the creation and shape manipulation exercise from the perception of the sensations experienced previously by roaming and drawing a part of the city.

In this phase of the creation process exercise, in the architecture studio, the elements defined by Barret when explaining the creative process as something that can reorganize itself in a whole, but that can only be defined by three main elements were addressed, in general:

- Conceptual Element – Ideas, impulse, feeling. Operates through sensation, emotion, reminiscence, association, and inference.
- Operational Element – Means, materials, techniques. Use of materials to express ideas, impulses, feelings.
- Synthesis Element – The dynamic of visual shapes. Refers to the structuring of visual shapes that are used to realize the idea through materials. Perception is the basis of this element, and representation is a form of art. Thus, art is the use of means to organize in visual shapes the subjective experiences.

In this specific exercise, the drawing contributed to the perception of the space of phase 1 and the creation of a solution of the architectonic shape of phase 2. The elaboration of models contributed in the sense of the materialization of the tridimensional space and its constructability.

Like drawing, the models are secular tools of architecture – and have never been so current. According to Henderson (2016), the work with models is “non-premeditated, non-verbal, non-linear” – that is, it opens doors of the creative

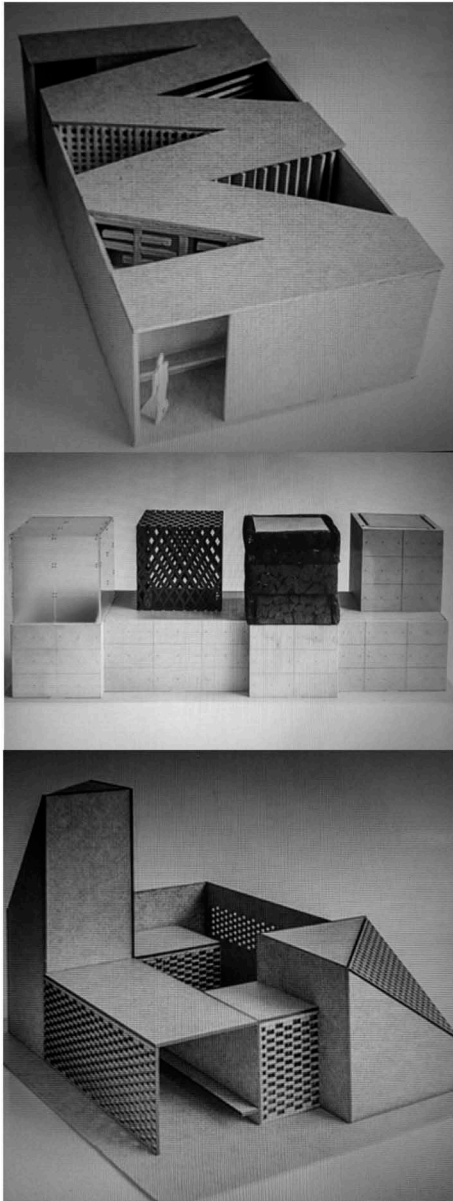


Figure 4. Student's works, path of senses. Source: Author's photo and editing, 2021.

process and allows to get right what was previously imagination or sketches. Learning through models is the first manifestation of architecture how it is: materializes its values.

Resuming Pallasmaa's thinking (2013), the work with models gets us closer to the object to be created. With it, we better visualize architecture as an integral universe, in all its existential complexity,

much beyond a simple representation on screen or paper. This volume – the model – defines what we conceive, demands opening, coverings, coatings, and establishes spatial relations that would easily escape from us when working only in the two-dimensionality. With the model, there is no omitted solution – we have access to the integrality of the proposed concept. Information is transmitted to us with higher clarity, easing the learning of the language that is architecture.

This clarity acts as a qualifying factor of the teaching experience. This is because when we visualize our decisions physically materialized, the creation process about our interventions in space is more reflexive. We become conscious of our proposal since we have the model as the carrier of the process, idea, and reflection.

4 FINAL CONSIDERATIONS

Many conclusions can be taken from academic work. The emphasis of this didactic experience, applied to the students in the course's grounding stage, permeates the importance of the conceptualization of space as the essence of thinking and making architecture, starting in the first steps of academic education.

The general objectives of the "Path of Senses" focused on applying grounding knowledge to the elaboration of shapes and spaces. As specific objectives, it sought to develop a spatial perception of specific urban and building spaces, their various complexity levels, and the investigation and creation of the architectonic shape, resulting in a tridimensional element – the model. All of this, having as premise the sensations and feelings that the built and natural space can awake and revealed in the students' design decisions. The shape organization decisions make the imagined path a sensorial and thrilling experience, and define if a space ought to be small or large, illuminated or darker, cubic or spherical, narrow or wide, with elements that block sight, creating expectation or surprise, with plans or pillars organized according to the intended rhythm, beams of lights cutting through space and directing the view, punctual lights evidencing the nobility of constructive materials, openings allowing soft breezes, reflecting pools mirroring the beauty of shape and the blue sky, plants and flowers composing with their colors and aromas, and even walls protecting us from the sometimes hostile and aggressive environment.

The work method developed in two action levels, the perception of space and the creation of the new, enabled the student's interaction with the learning object. In this case, in the first moment, our object was a real, existing path, perceived through movement resulting in sequential drawings. In this phase,

the student learned the drawing techniques and developed spatial perception, a somewhat abstract concept, due to its subjective character. At the beginning of the proposed practical activity, the students were unclear on how and what they could achieve at the cognitive level. All of us go through varied paths in our daily lives and perceive reality spontaneously, uncommittedly. At the moment, this practice configures a didactic exercise, which results in a higher level of reflection. In a second moment, the objective of interaction was the space and volume themselves created by the students, also in a path form, resulting from the perception work of the initial phase and the creativity and manipulation of the new shape. At this level, the students conceptualized their experience, tested hypotheses, analyzed the process, sought relations, and went from abstract concepts to scientific, concrete, objective concepts through a thinking or operative activity. The process allowed the identification of the learning object and giving it meaning.

Through the results, we concluded that perception and senses – those that arouse emotions in us – could help students in their architecture designs. Architecture (built and/or designed-imagined), in turn, can simultaneously explore all human senses so that while individuals, we have the perception of what surrounds us and can have emotions. As we perceive space, we discover that architecture can evoke emotions. In these memorable architecture experiences, space, matter, and time merge in a single dimension that molds our consciousness. We identify ourselves with these spaces, places, and moments and these dimensions become part of our

existence. Architecture is the art of reconciliation, Pallasmaa (2016) affirms, between us and the world, and this mediation takes place through senses.

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Drawing on time and form

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ABSTRACT: The text presents a series of drawings made in the context of a wider research on the formation of urban squares in Portuguese Southern towns in the early modern period. The drawings intent to present themselves as an alternative approach to the conventional plans with the evolution of urban areas. Instead of the usual representation system, a strong emphasis on the graphic features attempts to create a more in-depth approach to analytic and synthetic issues regarding the formation of urban space by encompassing multiple complexities – chronological and morphological – on a single drawing.

Keywords: Urban analysis, Drawing, Graphical analysis, History of cities

1



Figure 1. Serpa, Plan ca. 17th century.

Research is usually portrayed as a neutral and objective activity rooted in scientifically defined criteria. It is rooted in the empirical materials and sources, its critical analysis and hermeneutics, and on the debate, or so it says in theory (Col, 1999, p. 5). Therefore, far from what is usually seen as the main impulses of creation. Still, some evidence can be found that science also relies on the same procedures found in the realm of artistic creation. As put by C. Ginzburg and A. Prosperi, the researcher is not going to change his personal view of the world whatever evidences he finds on a subject (Ginzburg, 1975, p. 74), something already heard in the famous statement by Einstein “God does not play dice with the universe.” And at the beginning of the 20th

century, the surrealists-Freud connection showed how science and arts’ procedure have a long-standing liaison.

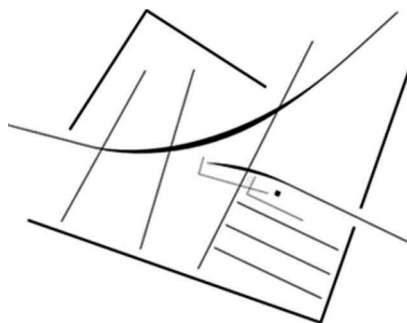


Figure 2. Serpa, Geometric-morphological conjecture.

With this background, the text presents a graphic and written reflection on the use of drawing as an analytical tool in the context of a historical study on urban space shaping, here understood as formation, generation, and emergence. Therefore,

Therefore, the processes underlying the urban form are mainly at stake, and much less the configuration shapes as a momentary result. The drawings reflect an attempt to explore how the graphical potential of a contemporary drawing could be explored as an analytical device to achieve different insights in the context of a historical study on urban space. This would imply moving away from the more conventional aspects of drawing in the context of architectural and urban representation.

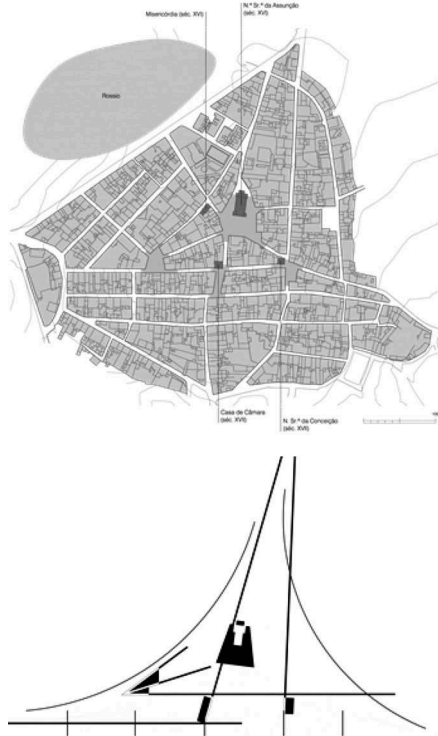


Figure 3. Vila Nova de Baronia.

The intent was not to define a different methodology to study the urban space or a new form of graphical-morphological analysis. Even less to emphasize some kind of “innovation” regarding the use of drawing in the study of past urban forms and spaces. A first glance immediately reveals more than evident similarities with the graphical work of Kandinsky, a long-standing interest, precisely for their analytical capacities. Nevertheless, beyond this immediate analogy, there is another decisive driving force beyond these drawings. The analytical sketches from Paul Klee’s courses at Bauhaus focused mainly on the study not of the form but of the formation, meaning on the underlying and invisible aspects of visible form. In the words of Pierre Boulez, Paul Klee, beyond speaking on forms, colors, and so on, was mainly analyzing how to transmute the forces of nature into lines of a picture (Boulez, 1983). Alternatively, paraphrasing Patrick Geddes – “A city is more than a place in space, it is a drama in time” – how to put this drama in lines of a drawing.

More than a coherent narrative, the following sequence of text and images assumes the form of conjectures, sometimes aphorisms. A paralleled and two-fold statement, where convergences, divergences, and crossings follow each other, concerns

the use of these drawings within a precise context, the formation of urban squares in Southern Portuguese towns at the beginning of the early modern period.

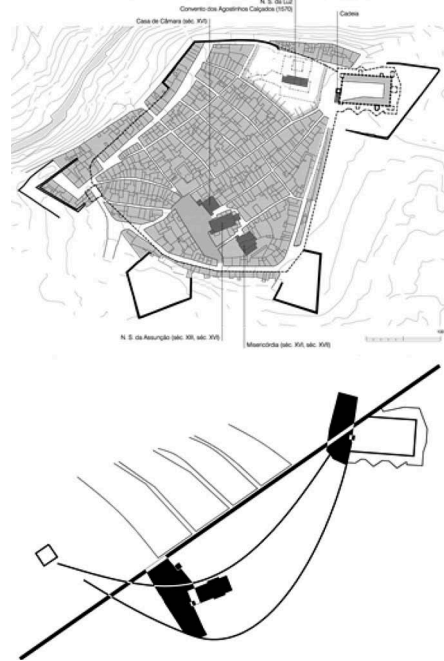


Figure 4. Arronches.

2 ON TIME

All art is a dialogue. So is all interest in the past. [...] In the end, it can be only a dialogue in the present about the present. (Finley, 1968, p. 15)

In 1968, Moses Finley, significantly a historian of Ancient Greece, pointed at the analogy between art and the study of the past. Moreover, he establishes that history, the study of the past, more than anything else, is connected with the present and about the present, which means that history, or more precisely the historian, cannot rely on the illusion that he is in the past, looking at it as if it was there. The questions addressed to the past are always from the present time.

This presence of the present institutes a certain synchronicity in our perception and study of the past. Even when assembled in a diachronic way, it is always an extremely compressed past, the one that we unfold. The historian gathers a bunch of relations from the past, most of them with little

evidence of causality. As acutely pointed by Wittgenstein,

a hypothetical link is not meant to do anything other than draw attention to the similarity, the connection between the facts. Just as one might illustrate an inner relation between a circle and an ellipse by gradually transforming an ellipse into a circle; but not to claim that a given ellipse in fact, historically, emerged from a circle, rather only to sharpen our eye for a formal connection. (Wittgenstein, 1967, p. 47-48)

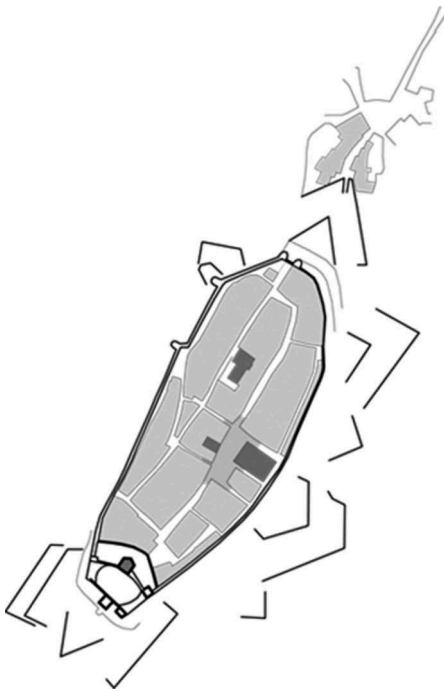


Figure 5. Monsaraz.

Still, one of the most common graphical devices in urban studies is the plans with the evolution of a certain urban area. In these, a series of plans, usually in chronological sequence, presents how an area evolved in a certain period. While allowing unfolding the successive shaping of an urban structure, this approach prevents seeing the relation between events separated in time. It points at isolated events, emphasizing the exceptional single form. While defining more precisely a form in a specific time, it leaves aside former and future transformations.

3 DRAWINGS: THE FORMS

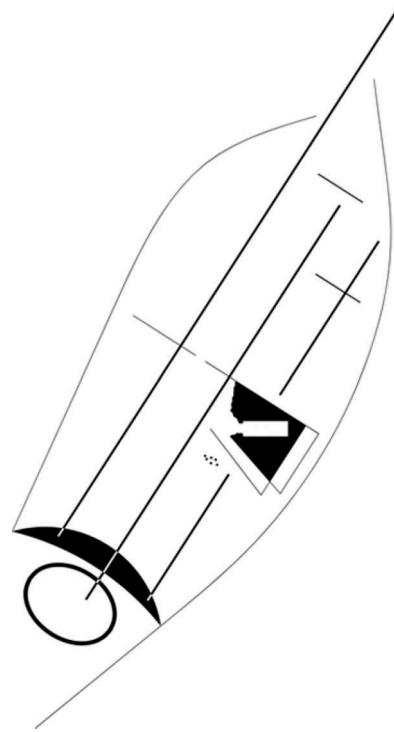


Figure 6. Monsaraz.

With the above-outlined presuppositions, the drawings presented here addressed a set of issues regarding the formation of the urban space. The aim was:

- i) to express in a single drawing the diversity of forms in an explicit graphical way;
- ii) to express in a single drawing the several processes underlying the formation of the urban form;
- iii) to have an explicit drawing in which the different issues were not graphically confused, but instead clearly separated;
- iv) to have in a single drawing both of the analytical and of the synthetic character, clearly separated, yet articulated and coexistent;
- v) in the end, to have a drawing encompassing, as much as possible, all the complexity of the urban process, leaving nothing aside, at least wishfully.

The process of making these drawings was, of course, of a dual nature. On the one hand, they were made experimentally: making, re-making, rehashing, etc. The trial and error that Gombrich (Gombrich, 1970) so clearly explained as characterizing all

artistic procedures. On the other, the elements and processes to be made explicit needed to be known, defined, researched, and proven, which means that the more intuitive aspects needed a permanent confrontation with the rational evaluation. Most of the drawings achieved their final state after a series of 10 to 15 attempts.

While the procedure involved strong graphical thinking, it always relied on hard and painstakingly historical and morphological research and decoding. Those elements are to be expressed as the foreground of the drawings, not as mere support, but as the issues that should immediately emerge from the drawings. Therefore, historical and morphological elements and processes had a first and clear picture before, floated, providing an immediate drawing attempt.

While each drawing had to deal with the specificities of each town, a common set of elements were present and defined, as they had, most of the time, a strong role. Mainly they were the

urban wall, streets layout, plot patterns, territorial roads, singular exceptional buildings, and singular exceptional urban spaces. Those elements were translated into lines, varied according to each town, and to his graphical effectiveness. Overall, each graphic element should be clearly different from the others in size, form, weight, and pattern. For instance, the clear distinction of the urban wall was most of the time achieved by his transformation as a regular geometric form with a thick line. Graphic contrast and emphasis were constantly used in order to achieve a clear distinction between elements.

4 DRAWINGS: THE TIME

Any historical study should deal with the issue of time. Beyond a chronological sequence of events, it also concerns the temporal depth of the phenomena and how they spread in multiple directions. Historical studies usually present themselves as a compact and monolithic narrative emphasizing coherence. However, paraphrasing Céline, everything that is interesting is surely happening in the shadows, we know nothing about the real history of men (Céline, 1970, p. 44). The temporal depth mentioned has less to do with the so-called French *longue durée* and more with all the gaps and fractures of time contained in every historical study.

Seen from a distance, the events seem to have more or less uniformity. When the research starts digging deeper and deeper into the sources –mainly primary ones –, what seemed quite plain issues acquire a more polyhedral aspect, and the coherent narrative becomes more and more inadequate, thus needing a more problematic approach to the multiple “textures of time.”

When a historical study presents itself as let us say, “Portuguese Dominican Convents in the 16th century”, the reader is confronted with a supposedly extensive study on a certain subject within a determined chronological scope. However, what is usually taken as the object is a highly selective set of cases, dealing with an also selective set of sources, thus leaving plenty voids of events and of times. From an epistemological point of view, these inevitable gaps should be exposed, instead of filled with more or less arbitrary relations or with subjective interpretations, however reasonable they may seem. As expressed in the famous quote from Niels Bohr to Einstein, “you are not thinking; you are merely being logical,” or in the words of Maurice Bloch, “This is so logically but of course this does not mean that it is so historically” (Bloch, 1987, p. 296).

Those unfilled gaps and fractures of time are crucial to the temporal depth of any historical study. They are the spaces where future scholars can insert to overcome established narratives.

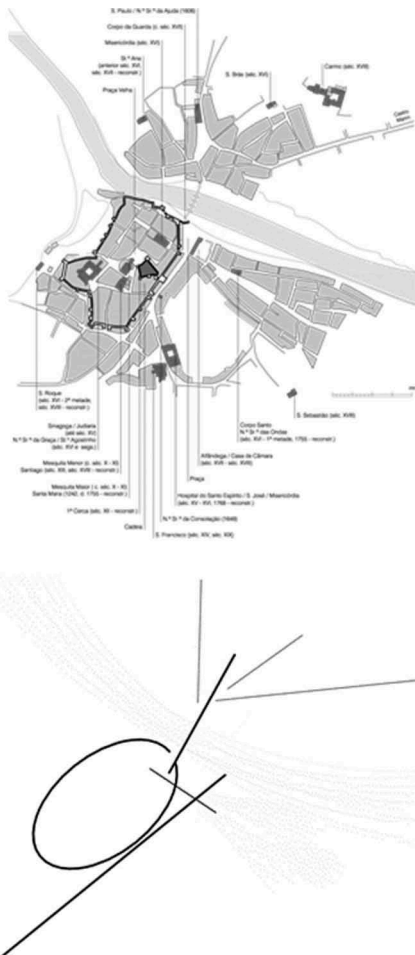


Figure 7. Távira.

The drawings presented in this paper attempt to deal with this issue graphically. The strong contrasts between the elements are a graphical translation of those voids of time, leaving room for those multiple unknown events and forms present in any town. This graphical approach is not a particular characteristic of these drawings. In musical composition, the sense of voids of space – and of time – is frequently achieved using notes within a distance of one or more octaves. Instead of a D played next to a C, just a tone apart, the D is played an octave higher, therefore having an eight-tonne interval, thus creating a sound impression of space and time between the notes. This compositional device is used both in classical and contemporary music and by some musicians within popular music, namely, in ambient music, where the use of strong reverberations in time need that the musical notes used as sources have a clear separation between them to allow the secondary harmonic notes to spread in that space and time.

That same procedure has been adopted while making these drawings, not only by leaving the white space of the paper but also by creating strong differences between forms and strong the It is within this same procedure therefore within the very nature of time, as inextricably merged with any historical process, that these drawings were made.

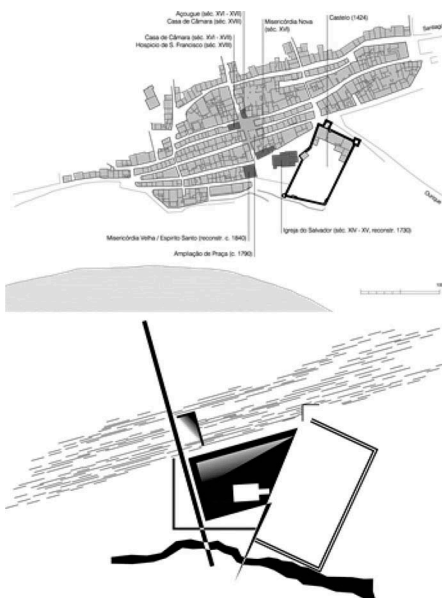


Figure 8. Sines.

5 THE GRAPHICAL SEDUCTION

Needless to say, these drawings were done to be appealing and seductive. At least to the author, hopefully to others as well. With the mentioned analytical and research issues, in the end, these drawings are intended to present themselves as distinct from an aesthetical point of view.

Still, this seductive side intends to have scientific consequences. History, especially art history, will always have the same answers as long as it keeps asking the same questions. In a sense, Vasari's proposal in art studies still echoes in contemporary historiography, listing on one side names of artists, other artistic works, and thereon linking names with works. The drawings in this paper put at a distance the more representational aspects of drawing. This stance envisages epistemological consequences, i.e., it is meant to allow seeing different things and raises new questions, hopefully useful. In a sense, the stance is based on Klee's assertion, drawing does not reproduce the visible, rather it makes visible (1920, p. 15). Therefore, using a non-representational drawing – but still strictly linked with the objects of study – that new things, new questions are expected to be seen.

6 REMARKS ON THE FORM AND DISTANCE

As already stated, all interest in the past, i.e., all historical study, is a dialogue in the present about the present. This implies that a clear relation of distance is implied regarding the past. Whatever the efforts one puts on the study, whatever the sources we dig on the archives, whatever our attempt to write on using an almost accomplice language, the past will always remain, irreducibly, a foreign place. Therefore, most of the questions that we throw at it are alien to those past persons.

This distance, either in time or in place, frequently provokes a sense of strangeness, something the researcher tries to bridge by engaging in a stronghold analytical stance or by adhering in a strong, empathically way to a certain dazzled fascination concerning its object of study. Both are, in a sense, inevitable. However, our attempt to a neutral stance, and we want to achieve a certain familiarity with them despite all the strangeness. We are quite aware that from the past, we cannot understand more than what in the wink of an eye, heavy with patience, serenity, and mutual forgiveness, that sometimes, through an involuntary understanding, one can exchange with a cat. (Levi-Strauss, 1955, p. 398).

And still, we all aim at a deep, strong relationship with the past, we want it to be real. By using our contemporary time tools and devices, the distant

phenomena become more familiar, and the dialogue more effective as if “they” were here, between us, and provide us in our present time, the answer to a demanding that could be from every researcher: In place of a hermeneutics we need an erotic of art. (Sontag, 1966, p. 10)

Note: The author elaborated all figures.

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The foundation myth of St. Petersburg in the city guidebooks: Creating heritage through mind and emotions

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ABSTRACT: The essay addresses the aspects of heritagization of St. Petersburg history, analyzing the myth of the city's foundation from the perspective of the role of emotions and mind in the production of its urban space. I turn to the guidebooks published in St. Petersburg in the eighteenth- to early twentieth centuries to explore the paths that the heritagization took in order to construct the narrative and the image of the former Russian capital

Keywords: City guidebooks, Emotions and mind, Heritage, Heritagization, St. Petersburg

1 INTRODUCTION: THE HERITAGIZATION OF HISTORY

History conversion into legacy happens in heritagization when certain historical episodes and moments are selected to construct a narrative commemorating and celebrating the past selected to be remembered in the present, which establishes continuity between the historical past and connections with its material artifacts. These artifacts may be art and literary works that belong to the period celebrated today or created for or about that time. They serve as illustrations and evidence of the celebrated past, filling unavoidable narrative gaps and bridging them over those historical episodes that fall out of the representative myth of the past, which is being produced through heritagization. The actual witnesses of the past, such as natural and architectural monuments, sometimes require explanation and preservation and sometimes need to be removed to conceal the past selected to be forgotten. In this essay, I turn to St. Petersburg guidebooks from the three centuries of St. Petersburg history to trace the paths of its heritagization into the most enigmatic and phantasmagoric city of the country.

2 THE FOUNDATION OF ST. PETERSBURG

St. Petersburg is a unique city in many ways, some of them originating in history and the myth of its foundation. The city was started in 1703 as the capital of the future Russian Empire, as the establishment of the country's new political course, and as annoyance to the "arrogant neighbor," as was articulated by the

Russian poet Alexander Pushkin in his 1833 poem *The Bronze Horseman: A St. Petersburg Story*. This poetic novel created a narrative of the foundation of St. Petersburg as the "Window to the West" opened by Peter I not only to manifest the victory over Sweden but to declare the beginning of the new country and the new history.



Figure 1. The Bronze Horseman monument to Peter the Great. Author's collection.

The city lay at the mouth of the Neva River, flowing to the Finnish Gulf of the Baltic Sea, was built by the will of a single man. The landscapes were the least favorable to the establishment of a megapolis,

and St. Petersburg became one of the costliest personal caprices of the Russian Tsar not only by the unprecedented amount of financial investments but by the scale of the direct human sacrifice as well.

The dialectic between the rational and the irrational in the creation of St. Petersburg underlines the whole history of the city's existence from its very beginning. Peter's mindful understanding of the urgent need to protect the lands newly gained from Sweden on the one hand, and an obsessive drive to overcome the whole multiplicity of natural, political, and financial challenges in no time and without any hesitation on the other, resulted in a city, which became one of the world's most fascinating and ambiguous creations of a genius dictator's brilliant mind, which was driven, at the same time, by his unchained emotions.

Nikolay Karamzin, the Russian historian, and writer of the turn of the eighteenth and nineteenth centuries, called St. Petersburg a brilliant mistake of Peter I (Karamzin, 1991, pp. 197-199), sharing similar impressions from the city expressed by the French philosopher Denis Diderot after his five-months stay in St. Petersburg in 1773-74 under the invitation of Empress Catherine II the Great. Diderot believed that the capital city, which he described as "unnatural," should be moved deeper inland, and that its status was to be reduced to a regional sea-port, since keeping St. Petersburg the center of the Russian Empire was like living with a heart out on a fingertip (Mezin, 2012, pp. 70-78; Dzhabbarov, 2018).

Ever since, St. Petersburg, collecting its wealth and nurturing its beauty, has been expelled to the constant threat from the West, if only to recall the devastation of the nine hundred nights-long Siege by Nazi Germany in the Second World War. The city remained an attractive bait for its enemies, and yet all their efforts to conquer it failed, as it was never defeated nor occupied by external enemies, only if by those raised within its own urban womb.

3 THE SPLIT BETWEEN THE RATIONAL AND THE IRRATIONAL

Fyodor Dostoevsky, engaging with St. Petersburg's space in his literary works ("Dostoevsky's St. Petersburg," - a famous literary cliché in Russia), revealed this dialectic between the rational and irrational, the mindful and the psychological in the city's character calling it "the most fantastic" city, meaning it being the most distant from reality and reason on the one hand, and at the same time regarding it as the most "abstract and intentional city on entire globe" in his *Notes from the Underground* written in 1864. This ambiguity resulted in St. Petersburg's specific dehumanizing effect on a "little man" living in the big city that Dostoevsky and other Russian writers, among them Nickolay Gogol', stressed in their works.

This effect of what Dostoevsky calls "official" or "bureaucratic" St. Petersburg had severe and depressing impact on the state of minds and souls of his characters that were doomed to eternal sufferings and dark sides of human existence by the very urban conditions of the "yellow St. Petersburg," a metaphor that Dostoevsky used in describing the maddening space of the deserted and soulless city in the hot summer days that had driven Raskolnikov to commit murder in *Crime and Punishment* (1866). This metaphor is intensified by the symbolic reference that the locals draw to one of the first St. Petersburg mental institutions built in the classical style in the late 1770s by Italian architects Giacomo Quarenghi and Luigi Rusca on the bank of the Fontanka River. The yellow color of its facades was characteristic of St. Petersburg classicism, giving locals associations not only to an architectural style but to the fear of ending up in this institution, as the "yellow house" still means the "madhouse."

The intentionality of St. Petersburg is indeed one of its most distinguishing features. Unlike most cities that take decades and centuries to grow from a small fortress or a village to a capital, St. Petersburg was planned from the start. Even though the Emperor issued no special decree that transferred the capital from Moscow to St. Petersburg, it happened de-facto in 1712, just nine years after its foundation, once all state and governmental institutions moved from Moscow or were newly re-established in St. Petersburg.

The city that was founded as a fortress to protect the lands from Sweden in the ongoing Northern war had to develop the whole complexity of its urban organism very fast, including the infrastructure of defense, the communication systems with a new sea-port at its core, the plants and factories that supplied the construction sites and provided for the city's everyday life, and the gloss of the European capital. Peter the Great wanted to observe an immediate metamorphosis of these lands from a deserted swamp into a paradise of his own imagination in no time. He was creating his myth of Russia that had not existed before him and that neither existed after



Figure 2 . Benjamin Patersen. view to the spit of the Vasilijsky Island and the Stock exchange, 1807. From the Hermitage museum collection.

him. The city of St. Petersburg was being created along with the myth of St. Petersburg.

4 THE PRACTICALITY OF MIND AND THE EMOTIONS OF PASSION

For Peter the Great, the city's foundation did not mean merely the new outlay to the Baltic sea with convenient and well-developed military and trade routes. It was as much a practical step towards opening a window to Europe as an emotional gesture of breaking with the previous history of the country that he inherited and that he saw reflected in the image of Moscow, which was object of Peter's personal disaffection due to some dramatic obstacles of his childhood.

By founding St. Petersburg, Peter wanted to start from scratch, leaving his city to the next generations as a record of his reforms, as a story of his personal success. The foundation of St. Petersburg began the new page of Russian history, and it required a new historical narrative to be developed immediately to transform the history of St. Petersburg into the new national heritage. It should have become the new point of reference, the new origin of Russian statehood inseparably connected to the Emperor's name. The myth of St. Petersburg's foundation initiated by Peter I, who came to an appropriated and conquered land to begin the new history of Russia, received its further development in Russian literary tradition, which in the nineteenth century was given a poetic form by Alexander Pushkin in "*The Bronze Horseman*," bringing the myth of St. Petersburg's foundation to the masses as a valuable and unquestionable legacy. The myth of the origins of St. Petersburg that was established on barren marshy soils as an act of Peter's passionate will symbolize the beginning of the new country and the new history, and since the nineteenth century has become a celebrated national heritage.

5 CITY GUIDEBOOKS AS THE TOOLS OF HERITAGIZATION

The genre of guidebooks falls somewhere between the fiction literature, the fables, the memoirs, the travel notes, the statistical reports, the historical studies, and the advertising booklets, usually matching neither of these. Yet each edition pretends it provides with the trustworthy and mindful representation of the city it represents, at the same time promising an emotional experience and impressions, at the end inevitably failing to satisfy its reader's expectations for the both.

However, to study the mythologization of a city's history, guidebooks are valuable sources. They produced and recorded the heritage for the historical periods when they were published and, at the same time, once out in the hands of readers, they become

the artifacts of the heritage they helped to construct. The authority of a guidebook to lead the reader before, during, and after her visit to an urban space is enormous as the guidebook directs readers' minds and emotions towards a particular perception of the space, setting a historical perspective and adjusting an ideological optics on historical monuments. Every guidebook selects and processes the information it provides about the city, choosing the most important and representative of that space. Guidebooks draw our attention to some sites with selected stories and descriptions and articulate and propagate the ideology of spaces that we explore. While certain places are highlighted in a guidebook, other memory sites and their histories remain outside our reach simply because they are not mentioned.

There is usually no visible discrepancy between a story told and an object represented in a guidebook. A constructed narrative fills a historical object, and this infiltration turns it into an object of heritage. We usually overlook this manipulative and administrative moment of heritagization for the sake of the guilty pleasure of consuming the entertaining continuity uncritically that a good guidebook introduces, hence buying a spoiled history wrapped in the shiny tinsel of heritage.

The heritage is hence administrable, as long as it is distinguished from history, which is understood as a domain where some evidence of the truth resides, and the guidebooks surely offer to explore. David Lowenthal, a prominent scholar of heritage studies, outlined a ridge between the history and the heritage in his book *The Heritage Crusade and the Spoils of History*. (1998). Today, after two decades of pursuing the total commercialization of heritage into the tourist industry, various guidebooks are significant; distinguishing between history and heritage is considered no less than an axiomatic suggestion and a commonplace. Even though separation of heritage from history is subjected to marketing and instrumentalization, and while, to the note by Lowenthal, "these two routes to the past are habitually confused with each other," his definition of the difference between the history and the heritage remains relevant

In fact, heritage is not history at all; while it borrows from and enlivens historical study, heritage is not an inquiry into the past but a celebration of it, not an effort to know what actually happened but a profession of faith in a past tailored to present-day purposes (1998, p. X).

City guidebooks as the tools of heritagization of the past contribute to its mythologization and stereotypization. Heritagization in the popular literary form of a guidebook directs our attention to material objects that testify to specific historical moments that find themselves in compliance with the 'present-day purposes.' Even though such heritagization may

be distortive to history, the objects selected for observation link the ‘correct’ episodes of history, as in montage, to produce a continuity necessary for a historical narrative identified as representative of the city.

6 ST. PETERSBURG GUIDEBOOKS: FROM ACADEMIC STUDIES TO SENTIMENTAL JOURNEYS

What is said about the genre of tourist guidebooks is undoubtedly relevant to the hundreds of editions published on St. Petersburg in the city and beyond its borders. And yet, the paths of history that the city had to undertake produced a heritage of extremely high and intensive ambiguity, imprinted on the pages of St. Petersburg guidebooks of various epochs. Thus, the St. Petersburg guidebook study of s in their continuous and chronological sequence draws a fascinating timeline of the city’s representation and imagining, of heritagization of its past and the mythologization of its present.

The first guidebooks on St. Petersburg appeared some decades after its foundation and served the city’s official descriptions and statistical reports, at the same time following the European tradition of a sentimental journey and travel writing of the era of Enlightenment. One of the founders of this genre was Laurence Sterne, who wrote *A Sentimental Journey Through France and Italy*, first published in 1768, initiating the genre fashion. In St. Petersburg, the first publication that outlined the standards and criteria for guidebooks for many decades ahead appeared in 1779, during the reign of Empress Catherine II the Great. Andrey Ivanovich Bogdanov, a historian and bibliographer of the Russian Academy of Sciences, had collected and processed enormous data on the history of St. Petersburg and the various aspects of the capital’s life since its foundation in 1703 and till 1751. He created the encyclopedia of the city, giving equal attention to its historical background, the state of industries, governmental institutions, geographical features, descriptions of natural landscapes, weather, of the citizens’ characters, traditions of various classes, celebrations, and statistical information, medical institutions, and economy.

The Historical, Geographical, and Topographical Description of St. Petersburg, from its foundation in 1703 till 1751 (Bogdanov, 1779) was created with the pedantry of a bibliographer and archival researcher whose main goal was to introduce an objective and rational study that could be used as a source on the history of St. Petersburg for many decades ahead. At the same time, Bogdanov, a pioneer in the field that in some hundred years developed into a sustainable research area of “Peterburgology,” had no illusions on

the urgency of his work when he finished it, admitting that “this historical description of mine, seemingly not very necessary, yet will be of a need to the next generation and will be called at their service” (Pukinsky, 1974, p. 224). Bogdanov’s fundamental study that was filled with love for the new heart of the Russian Empire and with fascination before the miracle of its unprecedented beauty that grew in a few decades in front of his eyes was first published nearly thirty years later, in 1779, long past the author’s death.

Bogdanov’s work set a high standard for further authors, and the following guidebook published by an academic historian, Doctor of Medicine, and scientist Johann Gottlieb Georgy, in 1794, was introduced to Empress Catherine already as a precious and appreciated gift. Georgy attracted the whole team of researchers and experts from various departments to collect data on all sides of St. Petersburg’s life.

Georgy engages with the history of the foundation of St. Petersburg that was outlined by the struggle with Sweden for the lands that Peter turned to Eldorado immediately after winning them. He describes the factories that were founded to supply the city and the institutions that were developed; he was proud of the beautiful palaces and architectural ensembles and provided with the detailed description of the treasures of the Hermitage – the world’s top collection of paintings, jewelry, and ancient rarities that was established by Catherine the Great in her Winter Palace in St. Petersburg.



Figure 3. View to the Royal winter palace and the spit of Vasylievsky Island. Photo by Grigory Brazhnik. Courtesy of the photographer.

And yet Georgy, an experienced scientist of the Enlightenment, a celebrated member of Academies of Sciences of Russia and Prussia, a member of the Free Economic Society in St. Petersburg and The Berlin Society of Investigators of Nature places his main focus on his own impressions from the life in the city instead of a scientific data. He expresses his emotions freely when, being a world explorer, he finds St. Petersburg one of the most liberal places on Earth, where foreigners live together with the Russians

enjoying the freedom of enterprise, starting their businesses and affairs and observing international industrialists growing rich while enjoying the benefits set by Peter I for the foreign merchants to attract international capital to the city and stimulate the economy (Georgy, 1794, p. 164).

He is fascinated by what he finds as the absolute freedom with compliance to the law that exists in St. Petersburg, characterizing citizens by their endless hospitality, the tendency towards constant changes and everything new, as well as by their passion for regalia and high social status (Georgy, 1794, p. 656). He notes that the foreigners benefit from the unlimited religious tolerance that Peter I stimulated by preserving the right of all non-Russian Orthodox permanent and temporary residents to worship their religions and build their churches (Georgy, 1794, p. 661).

Even though Georgy's study is written in Russian in an entertaining style to all Russian society classes, his primary addressee was the Empress in a role of a voyager. Georgy imagined Catherine the Great came to the city from far away and needed to understand the nature of this brilliant environment; hence the shift towards an idealized image of the city and the focus on the benefits that were enjoyed mainly by the upper and middle classes of the Russian society, which, it should be noted, constituted a large part of the population of the capital at that time.

This tendency towards addressing a stroller, a stranger, whether she comes from provincial Russia or a foreign land, started prevailing in the city guidebooks since the beginning of the nineteenth century. The existence of the eighteenth-century literature corpus on the history and highlights of St. Petersburg that had set the guidelines for this kind of edition continued in the format of multi-hundred-pages encyclopedias for travelers and locals that could be used for decades. Yet, the targeted audience was not exclusively the royal court and the nobility anymore, but the people of all classes, as guidebooks started giving tips for the variety of places to eat, stay, and spend free time depending on the reader's budget and the class without offending those of the 'humble financial generosity.'

The 1843 *Guidebook on St. Petersburg and Its Suburbs* by Ivan Pushkaryov already represents the classical edition that fully employed idealized stereotypes on the freedoms, tolerance, and hospitality of St. Petersburg citizens, the happy life of the foreigners, and the luxury of the capital's dolce vita. The accent shifts from the statistical data on health, industrial production, and historical background to the contemporary urban space in all its complexity. However, the St. Petersburg foundation myth, born on the empty marshy soils by the will of Peter the Great, was already well incarnated into the city's legacy.

These trends remained and developed throughout the nineteenth century, adjusting to the growing flow of business travelers and tourists from various regions of the Russian Empire and the world, which increased dramatically at the turn of the century due to modern communication means.

At the beginning of the twentieth century and until the 1917 Revolutions, tourism was a well-established industry in St. Petersburg and many other parts of the Russian Empire. A publisher, a tour guide, and entrepreneur Grigory Mosckvich produced a series of guidebooks on different Russian cities and regions, offering package tours around the country for various classes and budgets. In the last year before the Revolution, he wrote and published a guidebook with a classical title *Petrograd and Its Environs* (Moskvich, 1916) as St. Petersburg was renamed into Petrograd, which was a mere translation of its German name into Russian in response to the break of the World War I. Along with providing the detailed information on where to stay and dine, on how to negotiate the cost of a cab and save on the tips to servants, he throws his readers on to the Nevsky prospect – the main street and the face of the city right upon their arrival to the central train station. In a lively and emotional manner, Moskvich describes the move, the drive, and the noise on the Nevsky, letting his readers fill the pulse of Petrograd, the main nerve of the country (Moskvich, 1916, p. III).



Figure 4. View to the Nevsky prospect. Photo by Irina Seits.

7 CONCLUSION: GONE WITH THE WIND OF CHANGE

Nevertheless, what fascinates me the most in all guidebooks of this time is that none of them felt a breeze of a catastrophe that in a matter of months grew on the wild wind of the Bolshevik Revolution, that stormed away the image of the city that was created through the minds and emotions, blowing the

city's memory of itself down to the ashes. After the October Revolution of 1917, the paradigm change was so enormous that it burnt down all bridges between the new city of Leningrad and the old glorious St. Petersburg-Petrograd. Between 1917 and up until the end of the civil war in 1922, guidebooks were not published. The history of St. Petersburg was at large prohibited, and its heritage was destroyed to the ground as it was flesh and blood of the defeated Imperialism. The new foundation myth of Leningrad was fabricated in the 1920s, which required building an entirely new vocabulary and finding the new points of reference to rest the new heritage upon. In the following decades of the Soviet power, the re-appropriation of the Leningrad's heritage revealed the very complex and challenging nature of 'the most unnatural city' that, despite all its ambiguity, remained a brilliant creation of mind and emotions, resurrecting its heritage from oblivion once again at the end of the twentieth century. However, that is yet a different story and a different myth.

At present, the St. Petersburg foundation myth formed in the first two centuries of its existence is well protected, maintained, and administrated. It is itself a heritage. Even though this myth is distinguished from the historical truth, it is nonetheless valuable on its own account. If to cite Lowenthal again, "heritage and history are closely linked but they serve quite different purposes." (1998, p. 104). The purpose of the guidebooks of all times is to introduce a city's highlights and lifestyles and to glorify an appropriate and relevant past, which itself serves as an introduction and the beginning to the glorious present, establishing time bridges between then and now, and providing with material evidence to the continuity or inherited legacy of present affairs, addressing both minds and emotions of their possessors.

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Rethinking the body, cultivating the mind, sharing the emotions. The Libertà neighborhood in Bari: An experiment in urban regeneration and social resilience

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ABSTRACT: The writing is part of the experimentation that the municipality of Bari is developing as part of the three-year National Program of Social Innovation referred to the dPCM December 21, 2018, aimed at developing innovative and resilient public policies for sustainable growth of urban territories.

The Covid-19 phase has exalted and exploded social, environmental, and economic issues that were often latent and has highlighted the urgency of actions aimed at developing, in the near future, public policies inspired by principles of social and cultural innovation and supporting a rethinking of urban territories based on creativity and participation. In this scenario, halfway between the need for a concrete response addressed to degraded urban territories (the mind) and the need for a reflection with people and their experiences (emotions) lies the experiment aimed at the re-birth and re-creation of the complex links that the Libertà neighborhood, in the heart of the metropolitan city of Bari, had assumed with its inhabitants and that it has inexorably lost in little more than a century.

Creativity, young people, new cultural and evolutionary dynamics, the rapidly changing world of work, the multi-ethnicity, and the growing number and need of the elderly are mixed here in the search for a new social pact that brings together society, environment, and economy and that can imagine a new way of thinking about urban spaces (public and private) as the primary engine of this global rethinking of territories.

Keywords: Urban regeneration, Social Innovation, Spatial segregation, New living spaces, Environmental sustainability

1 SOCIAL INNOVATION AND THE URGENCY OF CHANGE

The crisis caused by the spread of the Covid-19 pandemic reinforces the urgency of public policies inspired by the principles of social innovation. In this sense, it is urgent to build a “new social pact” for cities, new mechanisms of the relationship between public administration, aimed at protecting the public value of investments, and the private sector, aimed at an economic valorization of its intervention and the third sector, aimed at mediation between the two.

This debate, which was already central after the financial crisis of 2007-2008, has become more topical than ever due to the current pandemic crisis and the inevitable repercussions it is already having on the socio-economic structure of our cities (Bashir et al., 2020; Haase, 2020; Sharifi & Khavarian-Garmsir, 2020).

In this scenario, a decisive challenge opens up for the Third Sector, no longer as a residual third way

compared to the two classic players of the socio-economic system (State and market) but as an innovative perspective of development policies inspired by sustainability and the generation of positive impacts (Evans et al. 2016; Lyth et al., 2017; Thompson, 2019). At the same time, the role of business is changing profoundly by increasingly assuming the paradigm of sustainability (social and environmental), according to the patterns of innovation (technological and of process) and of the social impact, as a constitutive element of its social market identity. Financial operators will prove to be, in this sense, real social actors because with their network of territorial proximity and the vital function they play in specific contexts for the production system, they bring out the social character of finance in the social recapitalization of places. (Weresa, 2018; Rajan, 2019; EaSI, 2021).

In the meantime, the economy of multinationals and that of creative and knowledge-intensive micro-entrepreneurship travel more and more side by side in the job market (Reuschke & Houston,

2016). All this brings out a newfound value of local territories, with their formal, mental, and emotional identities and typicalities, which are fundamental, in their specificity, for the creation of truly durable development models. These models should not be placed, on the other hand, in opposition to the processes of the global market, which will also continue to act forcefully on the territories, but will be called to express, compared to them, a greater ability to maximize the human, creative and productive capital of the places, greater attention to the processes of environmental, social and economic sustainability and, therefore, greater resilience. (Rajan, 2019)

The Italian experience of the Fund for Social Innovation (FIS) of the Presidency of the Council of Ministers (Innovazione sociale, 2019) is set in this scenario. Within this framework takes shape the experimentation conducted in the context of the redevelopment of the Libertà neighborhood of Bari, aimed at developing a new model of design and implementation of public policies and investment in the capacity of local communities to promote new levels of socio-economic growth capable of containing the phenomena of deviance, spatial segregation and social exclusion (Power BI Report, 2021; BIS, 2021)

2 LET'S START AGAIN FROM THE CITIES

The European Union's response to the pandemic crisis is proving to be massive in terms of resources (750 billion euros in the Next Generation EU plan, 209 billion of which are earmarked for Italy), and equally clear in terms of priorities: investing in the digital and sustainable transition to boost productivity and growth. Italy entered the Covid crisis, at the beginning of 2020, with an unemployment rate of 9.6%: triple that of Germany and 3.4 points higher than the European average (CERVED, 2021: 71). In December 2020, the latest Istat data, youth unemployment was back to close to 30%; we are at 29.7%, up 1.3 points in December 2019 (just before the coronavirus emergency was triggered). Thus, in 2021 and the foreseeable future, the crisis will have a major social impact (Life, 2021). Italy is known to be among the oldest and lowest birthrate countries in the world, and this will greatly affect the productivity system and economic processes, the evolution of cities and their services, health care, and services for the elderly (CERVED, 2021).

In this context, the crisis of the contemporary city and the need to imagine the phenomena of regeneration of urban systems as processes intimately linked to the social, economic, and environmental growth of urban territories is

manifested in all its force (Thompson, 2019; Weresa, 2018, EaSI, 2021). Significant, in this sense, is the contribution that the physical place, with its specificities, can make to such change through its formal and functional rethinking (Hölscher & Frantzeskaki, 2021; Thompson, 2019; Evans et al. 2016). Urban regeneration processes thus become an opportunity to reinterpret places and, with them, the forms and functions that characterize its space in relation to this specific time and its changing needs. Above all, it becomes a tool entrusted to act on the transformation of processes and flows, as well as on the re-interpretation of the different orders of ties that exist between physical space (in its multiple declinations of public, semi-public, private space; of services, specialized activities, residency, commerce, etc.), individuals (understood as social and economic entities), and communities (understood as complex structures of individuals held together by specific life relations, relationships, activities).

3 THE PLACE POSTULATE: URBAN REGENERATION NEEDS COMMUNITIES IN ORDER TO EXIST

In the development of urban regeneration projects, a common mistake is to think of the project as a tool capable of accelerating any type of urban process (social, economic, environmental, or energy) regardless of the starting state of the physical-environmental and socio-economic context in which it operates. Most of the interventions that, in this sense, make the headlines offer limited solutions or respond to specific needs (housing, employment, welfare, etc.) but seldom assume the value of systemic complexity. Even more often, they arise as a purely formal response to the need for real economic speculation that ends up distorting the real estate value of that context and triggering the inexorable expulsion of entire segments of the population who, in turn, will feed new niches of social and physical degradation.

This text wants, on the contrary, to highlight the strong transdisciplinary and inter-dimensionality of the design process that guides any path of urban regeneration and the need for strict adherence to the geospatial, temporal and social context in which it is declined.

If urban regeneration can be understood as social and economic leverage of urban territories, this process cannot happen suddenly, by choice of a few private investors, or as an act precipitated from above and managed with public funds, but, on the contrary, as a continuous and slow process, which operates primarily on the construction of networks of complex and aware communities, able to support

and accompany the change of places. It is not a matter of responding in a welfarist manner to a community need or giving answers to those who often cannot even define a specific need. It is rather a matter of progressively strengthening the mechanisms of participation and awareness in order to promote and support the construction of widespread opportunities that lead the local population to be not only participants in change but also capable of investing directly, economically, and socially in itself, without risking, at the end of the process, to be expelled from its own places.

All this intersects with further processes that profoundly transform the relationship between individuals, communities, and urban spaces. The great economic crisis of 2008, combined with the great technological revolution of the last decade and the forthcoming 5G revolution, is telling us of a world of work increasingly in transition towards models of high flexibility and specialization, unbalanced on the axes of information technology and communication: where urban places will have ever-decreasing importance in the construction of economic capital and ever-increasing importance in the construction of human capital (of innovation and creativity); where the value of training and the ability of individuals to be part of polysemic networks will be more important than the strength of the individual; where the role of public space, in the construction of complex social relations, will expand well beyond the physical threshold of what, until now, has been recognized. Meanwhile, the deep health and economic crisis that began in 2019 and is still ongoing highlights the weakness of cities as an effective engine of development compared to rural areas. The high population density and the extreme relational proximity accelerated the collapse of the mechanisms of productive, social, economic, creative, commercial, and cultural concentration, traditionally attributed to urban space and recognized until now as better than rural settlements. The contemporary city, especially in Europe, has manifested itself in all its fragility: the expulsion of green areas; the weakening of social networks to the advantage of a marked urban individualism and a strong tendency to fragment family networks and neighborhood ties; the compression of living space and, in parallel, of family needs due to the speculative logic of urban space; the crisis of traditional forms of trade; the pressure of complex food supply chains (totally disconnected from the territory and proximity markets) increasingly dependent on supra-regional and international trade and distribution networks; the multiplication of sources of

pollution, have highlighted the substantial lack of “resilience” of cities.

An exemplary case study, in this sense, is that of the Libertà neighborhood, on which the experimentation of the FIS for the metropolitan area of Bari is focused.

4 THE LIBERTÀ NEIGHBORHOOD OF BARI

The neighborhood was built starting from 1870 to cope with the demographic growth that affected the city. The name Libertà is probably linked to the Liberty phase and to the architectural style that interested the building of the first blocks. The fabric, strongly regular, is largely influenced by the settlement system to the “quadrangular block” of the adjacent neighborhood “Murat,” which makes up the heart of the historic center.

The neighborhood has an extremely high population density. Inscribed in a square of 1.5 km side, today it counts about 43 thousand inhabitants. It does not have any squares or thinning within it, except along the outer edges of the neighborhood itself. This implies a very low permeability and capacity for social interference and a low order of urban control.

Although contiguous to the historical center and the richest and most historical part of the city, the Libertà neighborhood, squeezed between the station and the port, is an enclave. The neighborhood is a receptacle of fragility and diversity in its compression condition and accumulates deep contradictions and tensions. Its origin is exclusively popular, and the working-class has seen its social composition enriched over time with the arrival of a white-collar and middle class, also attracting, thanks to the particularly low real estate prices and the proximity of the Court and the University, university students away from home, professors, lawyers, couples with young children, young migrants.

It is the most multicultural neighborhood in the city of Bari. In the target area, at the last census (Census ISTAT 2011), 1,481 foreigners resided there, just over 22% of foreign citizens living in the whole city (6,705), with a strong presence of Bangladeshi, Moroccan, Chinese, Yugoslav, Nigerian and Ethiopian communities. This strong condition of ethnic segregation is reflected in a commercial fabric rich in phone centers, typical food stores, halal butcher stores, clothing stores, and ethnic bazaars, but also in marked forms of housing hardship with the presence of many families who often live in basements, garages without habitability or highly degraded housing, often granted without any contract.



Figure 1, 2. Evolution of the Liberty neighborhood from 1874 to 2018 (Source: Somma, 2020).

The Libertà is also a neighborhood of large families: about 31% is composed of four or more members, 6% more than the entire city, and 5.5% of families have six or more members. Thus, a high percentage of both young people (over 10% of the population is between 15 and 24 years old) and the elderly is evident. This condition makes clear a further factor of social segregation that, directly related to the low spending capacity of the types of households described so far, generates important consequences on the sphere of housing affordability but also educational, training, health, and social stability of an important percentage of its inhabitants. Therefore, it is easy to imagine how the neighborhood has become a place of deep social tensions in a short time.

At the 2011 census, unemployment before the financial crisis of 2008 manifested itself in all its

drama, and a long way from the further financial and pandemic crisis of the present day was about 18.8% (compared to 15.8% for the urban average). The female unemployment rate was 24% (against Bari's 20%). It is interesting to observe how, in that survey, about 20% of the occupation of the neighborhood was absorbed by micro self-employed artisan activities, which represented the historical vocation of Libertà (tailors, carpenters, shoemakers, hairdressers, electricians, mechanics) but which, for the most part, were wiped out by the consequences (isolation, closure to the bitter end, impoverishment of families) of the pandemic. Finally, faced with a rate of higher education aligned to the urban average, there is a very low rate of graduates (31% against 55% of the urban average), which clarifies the considerable inertia towards innovation.

To these socio-demographic issues are added problems of public order. From the data of the Anti-Mafia Investigative Directorate, it emerges that in the area, there are several criminal clans active with ramifications throughout Europe, which operate a capillary control of the territory, involving, as evidenced by the investigation that in April 2021 led to the arrest of 99 people in the neighborhood, many young people.

In this context, finally, from 1991 to 2011, also due to the effects of urban segregation suffered over time, the increasing social and physical degradation of the places, the loss of productive capacity and work of local employment (at the end of the nineteenth century there were about 300 factories here, including the Tobacco Factory and some engineering companies), the population has decreased from the initial 52,567 to 42,905 inhabitants in 2011 (Censimenti ISTAT 1991, 2001, 2011). This data sees in the last decade a further reduction that cannot yet be statistically quantified, but that clearly shows the loss of urban functions, the increasing number of empty houses that now counts for about 13% of the housing stock (Regeneration L., 2021). On the other hand, the growing number of dilapidated buildings, of 'hovels' and housing with reduced habitability bring to light, for those who continue to live in the neighborhood, the important phenomenon of urban housing hardship and the multiple factors of urban deprivation traditionally associated with it by multiple studies on urban housing hardship (ICESCR, 1991; Graziani, 2004; Palvarini, 2006).

5 THE PREDATORY PHENOMENA OF MARKET AND THE REACTION OF THE PUBLIC ADMINISTRATION

To this serious state of isolation, segregation, and urban peripheralization have been added in the last decade, a further phenomenon directly related to the

capitalization of private real estate. The extreme proximity to the historical center and the city's main historical and artistic sections has led, in fact, to a multiplication of the phenomenon of short-term rentals (STR) and, in particular, to the spread of the phenomenon of Airbnb. As the international bibliography has already amply shown, here too, this phenomenon has led to a substantial increase in real estate market prices without bringing substantial benefits to the services and spatial, social, employment, and economic livability of the neighborhood (Nieuwland & Van Melik, 2020; Gallagher, 2017). Conversely, rent increases are being recorded, which will only exacerbate the phenomena of gentrification and marginalization of poor households. For households already burdened by specific sensitivities related to health (ISTAT, 2019b: 29), education (ISTAT, 2019b: 43), work (ISTAT, 2019b: 57), income (ISTAT, 2019b: 69), socio-relational exclusion (ISTAT, 2019b: 85), which, however, compose, for various reasons, the most relevant corpus of the urban social fabric, all this ends up disproportionately increasing their difficulties, directly influencing the deterioration of their specific social or economic condition. Grow, in this sense, the risks of expansion of organized crime but also the increase of problems related to traffic and parking, waste management, and security (Gurran & Phibbs, 2017), up to the risk of an actual loss of local cohesion (Gant, 2016).

For its part, the municipality of Bari, in 2014, started precisely from this neighborhood to face the challenge of a new urban development strategy. It is here that it focuses its main efforts and investments in terms of new projects aimed at integrated urban regeneration to transform the neighborhood into a laboratory of change.

Many interventions have already been carried out or put on the agenda in the short term:

- the recovery and conversion of the former Tobacco Factory (40,000 square meters) that from 2023 will host the CNR and the food neighborhood and spaces for catering, hospitality, and culture and that already hosts a Job Centre and a high-tech Incubator;
- the recovery of the former Nautical Institute, a valuable building bound by the Superintendence of Fine Arts, intended as a residence for university students;
- the redevelopment project of the few squares (Piazza del Redentore, Piazza Disfida di Bartolotta, Piazza De Nicola) and the marginal areas still available with the creation of the Urban Park Maria Maugeri (Ex Gasometro) and the Adriatic playground;
- the regeneration of specific urban sections of Corso Mazzini, Via Dante, and Via Fieramosca;

- the pedestrianization of a section on Via Manzoni;
- the creation and start-up of proximity principals related to the creation of creative incubators (Officina degli Esordi, Spazio 13), cultural (reactivation of the former Moderno Arena as ExPostModerno Cinema and the Community Library of the Don Bosco Library), socio-educational support (NEST Educational Center for the support and accompaniment of parenting, within the preschool "Manzari-Buonvino") and children (Early Childhood Play Center of the former school Melo).

6 THE THIRD WAY OF REGENERATION: COMMUNITY, PLACE, AND THE THIRD SECTOR

The strategy so far adopted by the Bari administration required deep economic investments in the neighborhood but, although multi-sectoral, it risks to be ineffective in terms of real impact on the social dynamics within the neighborhood or, on the contrary, to activate an uncontrolled process of real estate speculation and consecutive housing gentrification that, while reaching to enhance the neighborhood, would shift the problem to further border neighborhoods (Bolt et al., 2010; Musterd et al. 2017; Tammaru et al. 2020).

Hence the experimentation carried out as part of the Bari FIS program: to operate structurally on the complexity of urban space and the multiplicity of social layers that compose it. The aim is to reverse the regenerative syntagm re-starting from the community and its individual actors to transform urban places through their direct involvement in activities to be incubated through the third sector.

The neighborhood, due to its historical building and urban structure, is not only lacking, inside, of spaces dedicated to aggregative life (such as squares, open spaces, and gardens) but also characterized by urban spaces (streets and sidewalks) insufficient to ensure the mere pedestrian permeability and interaction between the different blocks. They, therefore, live in an autonomous condition regarding each other. The massive diffusion of the car made most streets noisy, busy, clogged by parking, and the use of urban space is reduced to a mere crossing of the same by pedestrians who enter and exit from individual blocks or the few stores still open. All this makes up a strong spatial and especially social detractor of the neighborhood. It has a massive impact on the very objectives of the community openness that the interventions put in place by the municipality aimed to achieve and, in particular, on the expansion of the degree of relational

and informal use of public space through the breaking of the enclaves of the individual blocks. It is difficult to see the unexpressed needs, to move people, to capture their interests, and to catch their attention if the places deputed to do this are closed within containers that cannot overcome physical, social, cultural, ethnic, and gender barriers, impeding, in fact, the communities themselves to confront, question and grow.

Hence constructing a design model of the physical space based on the principle of socio-habitational and socio-occupational transition of places. The vision is that of a more permeable urban model for the entire community, in which to facilitate the establishment of new forms of associationism and mutual support, in which to encourage the direct financial support of local associations of the third sector, appropriately accompanied and focused on implementing actions of transformation of the places that are directly related to community practice, social, cultural, welfare, educational, creative, and working. This is a mechanism to circumvent the purely speculative logic of the market and as a process of appropriation and rooting to the places and as a tool to enhance growth and urban resilience.

In this sense, the strong presence of foreigners is conceived as one of the main factors of distinction and strengthening (cultural, working, creative, ...) of the local fabric. The strong presence of young people becomes an opportunity to activate new socio-educational challenges, new networks of knowledge and training, and long-term transformation processes based on the principles of knowledge and innovation. Thus, the same tendency to build networks of reception of the STR assumes, for example, a further significance if referred to widespread hospitality, concerted by neighborhood associations and placed within a wider local economic-productive circuit, which also involves activities of the restaurant type (including through the activation of experiments in family catering and social restaurants) and is integrated with the offer of neighborhood cultural and creative activities, with the craft and manufacturing circuits, and with the promotion of internal tourism.

In order to develop all this, the physical part of the city needs to undergo a profound rethinking of its formal structure. It is based, fundamentally, on four specific operational strategies:

- I. The openness of urban courtyards. The courtyards inside the blocks are the first spatial and social limiter: they are places hidden from the neighborhood, often degraded and squatted, but large, capable of containing green areas and absorbing important social functions. The backs of many of the stores that run along the urban front open onto them, and they could be exploited as places to expand internal activities. The aim is to reconnect these spaces with the

city to increase the quality of urban life from an environmental, functional, and social point of view. Bringing the courtyards outside, in evidence, on urban places, and make them evolve towards a type of community type spaces, allowing people to move freely within them; activating and encouraging places for meeting, recreation, and play for neighborhood social networks; fighting the spatial segregation and urban social disintegration, to accommodate privileged urban crossing spaces and open those hidden areas that have been revealed over time as recesses of secrecy, conspiracy and aggregation, often criminal. For this purpose, several buildings have been identified in a strategic position and with inactive ground floor to create halls and passages capable of producing a direct connection between the courts and the main streets and between the different courts.

- II. The transformation of mobility and urban parking. The neighborhood was certainly not conceived to be crossed and inhabited by cars. The latter, with their appearance, have, in fact, decreed the segregation and autonomy of the single-built blocks. In this sense, while guaranteeing the large crossings of the main orthogonal road sections, the study aims to pedestrianize the more fragmented road sections and eliminate parked cars on the urban level in order to achieve mitigation of pollution and vehicular traffic and to make the crossing spaces for pedestrians more environmentally friendly. Here lies the logic of marking the most degraded and dilapidated buildings of individual blocks and selecting those most suitable to be converted, through neighborhood contracts, in multi-story parking lots for the use of visitors and residents. At the same time, the pedestrianized road sections, the enlargement and the redesign of the long sidewalks and, the direct accessibility to the courts will determine a multiplication of the privileged paths of urban crossing, wide fluidity for pedestrians, bicycles and electric scooters, and the intensification of the flows and the opportunities of social confrontation.
- III. Connecting blocks by reinterpreting street segments. The emptying of the streets and sidewalks would regain the direct relationship with the space of the stores and warehouses of the urban plan and, depending on the case, with specific sub-basements and raised floors that could be made directly accessible from the external street fronts. This enormous multiplication of public space directly usable by the neighborhood responding more adequately to the growing need for urban spaces and

services by contemporary European cities would encourage new activities and forms of organized labor. In this sense, the streets, between the blocks of buildings, especially if pedestrianized in specific sections, would become spaces for rest and meeting and places of the direct crossing of the different blocks of buildings. Transforming into real urban passages, these spaces could bind the zero floor of the neighborhood by encouraging the spread of new commercial activities and the multiplication of places to be dedicated to cultural and creative events. Connecting the most intimate parts of the neighborhood intimately would favor, in the end, a widespread cultural liveliness and the increase of the processes of control and social interaction.

IV. Housing and the new forms of agile work. The clear aging of the urban housing stock and, most times, the undersize of the spaces, the material deterioration (in terms of structural and physical-climatic response) and, the absence of adequate primary housing facilities and services (sanitation, adequate electricity, and water-sewer networks digital network coverage, ...), push towards forms of housing re-functionalization, including social and cooperative, which allow especially for a wide range of fragile households, currently unstable within the neighborhood, facilitated access to housing at reduced prices. The articulation of the buildings and the small size of the apartments does not fit well; moreover, the growing need for additional spaces to be dedicated to functions in addition to the traditional ones of living. The growing demand for new spaces for work at home and for activities related to leisure time can thus be directed towards new forms of use of raised floors and sub-floors of macro-blocks until now used as garages or irregular dwellings, and that can take on the new role of spaces for condominium management. Therefore, in these types of spaces, it is possible to provide local centers with services for workers living in the adjacent macro-blocks (such as office supplies, meeting rooms, printing services, and refreshment points) and assigned workspaces with special access areas for visitors. Additional parking for customers or employees can be provided, with limited use constraints for non-residents and a neighborhood design that promotes walkability and specific ways to access these types of spaces, as well as signage use permits for workspaces and specific permits for displaying and selling goods directly from these spaces (Zenkteler et al., 2019).

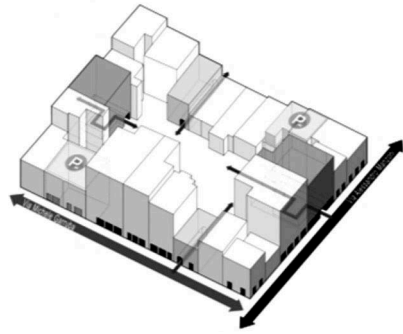


Figure 3. Redesign of one of the blocks of the Libertà district with the introduction of multilevel parking and access galleries to the courtyards (Source: Somma, 2020).

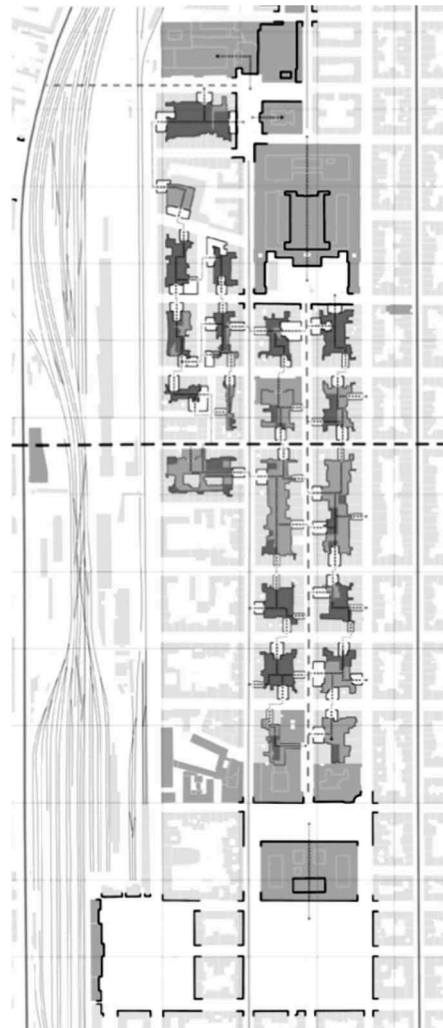


Figure 4. Hypothesis of the opening of the courtyards of the Libertà neighborhood and reconnection of the street paths through the realization of urban passages (Source: Somma, 2020).

7 CONCLUSIONS

This essay wanted to highlight how it is the contemporary city, with its extreme speculative processes (real estate, economic, employment, ...), to feed often disproportionately different forms of urban and housing distress, to the point of seriously endangering the welfare and quality of life of its own inhabitants. Hence the need for a design approach to urban distress that, to be truly effective, can operate systematically on different factors. To do this, it becomes essential to imagine a strong transdisciplinarity of the construction processes of the social, economic, physical, and technical dimensions of the urban and housing spaces of the near future (Renn, 2021, Ramadier, 2004). Spaces that, as in the words of Ramadier (2004), can bridge the gap between a purely spatial understanding of the city (the reason for the technical form) that uses models derived from biology, mathematics, or computer science, and a more purely environmental dimension (the reason for the place) that usually refers to sociological, anthropological or linguistic models, etc. (Ramadier, 2004).

At the same time, it is now necessary to overcome the logic of resolving the paradigm of urban space within the traditional dualistic relationship that places public reason and the market economy at opposite ends of the spectrum. This attitude is not only short-sighted but also dangerous. The vast series of urban and social constraints and limitations isolated to the Libertà district of Bari and extendable to many other urban contexts, synchronized with this particular global conjuncture (environmental, energy, economic, health crisis, etc.) is amply demonstrating how the greater part of the population of European cities already lives in a deep state of alert (UN 2021). Now all this risks producing the “perfect wave” that will show how this model of development is no longer viable globally and how it is inevitable to play the card of strengthening the power and vitality of local communities as an antidote to growing despair and discontent (Rajan, 2019; Botta, 2016).

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Designing minds with designed emotions: Spiral thinking design

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ABSTRACT: Thinking in the abstract about concrete allows to infer results that serve as material for the abstract again, and so on. Incremental change is a pretext for reflecting on the current crisis of temporal dispersion. The theoretical framework is based on a critical analysis of literature on Environments Design. Philosophers' aphorisms are recalled about emotions as a reaction phenomenon, triggered by mental content in reciprocal interaction with environments. Progress is being made in a direction that does not allow delay because it slows down progress. The acceleration increase generates negationism by reducing the duration of criticism and narrative tension. Human beings are guided by a thick "cloud" where current ethical-moral tensions result in overlapping punctual thinking. The knowledge acquired through the continuous learning of creativity can discipline merchandise's emotionalization and associated aestheticization, subordinated to the coercion of producing for individualism and hedonism through consumerism and obsolescence. Through experimentation with societal interventionist methodologies in Education Design, aided by Artificial Intelligence and Psychotherapy, centered on the user and spatial interaction with Landscapes and Territorial Dynamics context supported by Social Sciences, it is projected to consolidate a spiral process design for an Environments Design Methodology. Interdisciplinarity calls for the retroactive anticipation effect of future knowledge, operationalizing responsible conduct of creative contents to expand memory against human beings' forgetfulness as protectors of Mother Earth.

Keywords: Education Design, Environments design-atmospheres, Landscapes, Spiral thinking design, Temporal dispersion crisis, Societal interventionist methodology

1 TO REMIND

From a cognitive perspective, sensitivity is the ability to receive representations as one is affected by objects. With sensitivity, we receive sensations and perceive objects intuitively, while for the reason we think about objects. Relationships with thought are established, directly or indirectly, through the sensations from which the concepts emerge. The effect of an object on the capacity for representation, while we are affected by it, produces the sensation. The intuition that results from the subject's experience with the object through sensations is empirical and reveals itself as a phenomenon - the indeterminate object of that intuition - that is, everything that is subject to the action of the senses and causes a material impression.

Kant (2013) defines matter as what corresponds to the sensation in the phenomenon. The sensations produced by objects in the senses are transmitted to the brain, becoming ideas, judgments, or values. From the sensitive data appropriated by intuition, an order is established from the chaos of the sensitive world that, according to relations established through reason, shape the phenomenon.

Schopenhauer (2002), in his Aphorisms for the Wisdom of Life, infers that human beings, when they make mistakes, have the advantage (a situation that corresponds to the benefit in relation to other living beings) to do so in unison. The calamity (the common evil) that ends up reaching them because of this error is universal, while the thinking mind if it errs, remains alone. In this way, the principle that the error is necessary is evidenced and appears as a consequent result for the foundation of the phenomenon, expressing the random meaning of its occurrence, weighted from the impossibility to certainty.

Freud (1986) conceives human memory as a living organism, a dynamic process in which different levels of time interfere and influence each other. The psychic apparatus is formed through a successive stratification in which the pre-existing mnemonic material experiences a reordering according to new connections, transcribing itself constantly.

Pallasmaa (2011), architect and philosopher, suggests that sensory experiences are absorbed and integrated into the body and the human way of being. The human being is in constant interaction with the environment. The environment and the human being

are constantly and mutually redefining themselves. The perception of the human body and the image of the world becomes a continuous existential experience. The body does not exist apart from its space, and space cannot detach itself from the unconscious image of our perceptual essence.

These four philosophers¹, in their historical time, began to increase their thinking about the phenomenon, questioning: how does it take shape according to the relations of reason; what is the supposed advantage of human beings as thinking beings in relation to other living beings; what is the probability of parameterizing the error, from impossibility to certainty; the transcription of correlations and articulations resulting from the interaction of human beings with the environment and their mutual and constant redefinition.

Thus, as a reaction phenomenon, emotions are variable in duration and intensity in the body and brain and triggered by mental content in interaction with the environment, in a reciprocal influence.

2 TO EVOKE

The fleeting look at an image results in an inaccurate interpretation. Sensitive data needs to be supplemented by the projection of the recall. An image in an inverted position represents an unintelligible image, while in the correct position, it acquires meaning through the referential system that the memory can add. To complete the perception of that image, the recall appears to configure the data in an apparent arrangement. The image seen in an exact moment is organized to fit in recognition of previous experiences. Then, memory contributes through the appeal to remembering, imposing a sense to the sensitive chaos, placing order in the form of the data. However, the moment the evocation of the memory is recognized, it becomes unnecessary since its purpose is already achieved, triggered by the emotions.

It is questioned here how the recall is evoked each time we review a known object or think we recognize it? How does perception identify that it is an already known object if its properties are hypothetically modified? In fact, this recognition cannot result from the awakening of the memory but must precede it, just as this recognition will be an illusion because it cannot be understood because of the fusion of data truly read with lived memories, mixing to the point of not distinguish themselves.

Only after experience can suggestion, conjecture and analogy arise as causes of recognition, and it is precisely in the present experience, when it acquires form and meaning, that precisely this memory emerges and not another.

1. Immanuel Kant (1724-1804), Arthur Schopenhauer (1788-1860), Sigmund Freud (1856-1939) e Juhani Pallasmaa (1936).

But it is through the present gaze that the image can be given meaning again. Any sensitive data (apprehended by the senses) conceals the meaning of the original data. This illusion passes for an authentic perception in which the meaning arises from the sensitive world imitating this experience to signify what it really is. Thus, deducting the data by the senses, the impressions felt are reconstituted according to the action of the senses, the movement of the respective organs, the reading speed, and the time necessary for the sensation. After removing the perception data, the evoked elements are obtained and processed mentally. In this way, perception is developed with levels of consciousness that overlap in a construction in which all the perceptual matter merges according to an emotional order, of emotions as variable reactions, and which have in common to surprise the human being, involuntarily. Merleau-Ponty (1999) reiterates that at every instant, the experience on the horizon of consciousness is reopened as recognition, as an act of remembrance (evocation of memory), and, at the same time, immediately provides a sense and a meaning present to understanding. Zumthor (2006) considers to be a horizon always at the disposal of consciousness that involves in all its perceptions an atmosphere, a scenario whose collages and assemblages assign a temporal space (Janson, 1997), such is the presence of past that makes different acts of perception and remembrance possible. So, to perceive (to receive impressions by the senses) is not to experience a diversity of impressions that would bring memories capable of completing them, but to make an immanent sense emerge from a set of sensitive data without which memories would be impossible. To evoke memory is not to bring to consciousness a picture of the past that persists on its own, but to enter the past and gradually develop new perspectives that fit together until the experiences to which they relate are as if lived again in their temporal place, causing new emotions.

3 HISTORICAL TIME DESIGN

In prehistoric times, events maintain a meaningful chain. Each event reflects the essence of the world, eternal and unchanging. The constant repetition of the same and the perpetual reproduction of what happened (always to happen again) does not allow concession to acceleration due to the eternal return of the time when the human being lives in a present that endures. For Hegel (1992), this prehistoric thought is circular.

In historical times, events are arranged along a continuous line. The time that connects events and gives them meaning runs linearly. The essence of the world is no longer eternal and immutable. The possibility of change is that it makes sense of time. Historical time does not recognize a lasting gift. Time does not send backward, but it pushes forward. It does not advocate repetition but difference. The

order persists by difference and not by similarity. Time becomes significant through change, process, and development. The present is only a point of transition for transformation. Temporal significance is oriented towards the future. Han (2016) recognizes the emergence of the acceleration that aims to reach ahead eagerly. Historical thinking is linear.

In the present time, progress is being made in a direction that does not allow delay because it slows down the progressive process. The acceleration is gaining more and more strength. Time still has meaning as it advances with a purpose, but the difficulty in grasping knowledge persists because there is no tolerance for delay. Acceleration is necessary when history loses meaning, the future is forgotten, and meaning is abandoned. The timeline disintegrates at multiple points forming the “cloud” where information and social media data control post-historic society through Big Data in a context of Surveillance Capitalism².

Given the effect of time and the mutability of things, with everything that happens in the present moment, one must immediately imagine the opposite, oppose, that is, evoke unhappiness in happiness, enmity in friendship, hatred in love, betrayal and regret in confidence and insecurity. In short, the bad is not the good and vice versa. This strategy would be an inexhaustible source of prudence for the world, insofar as human beings would remain cautious and would not be surprised so easily, anticipating only the action of time. Perhaps for any type of knowledge, the experience is as essential as in the fair assessment of the inconstancy and change of things. In the media regime, immediate and global, each instant seems to want to preserve the right to exist for all eternity. But nothing preserves that right, and only the change is permanent, as Heraclitus of Ephesus, 500 BC - 450 BC, already defended.

Circumspection avoids being deceived by the apparent stability of things and allows us to foresee the direction that change will take. On the other hand, what makes human beings take the provisional situation or the direction of its course as permanent is that they have the effects before the eyes, without, however, understanding their causes. Question yourself! But the starting questions germinate future changes, while the effects, which are unique to the eyes, cannot be standardized because they have already been carried out. Schopenhauer (2002), on the other hand, warned of the position of human

beings in the appropriation of effects, on the assumption that the unknown causes, which were able to produce them, are also in a condition to maintain them.

4 HYPERKINESIA

The acceleration we are experiencing today reveals the dispersion of the current temporal crisis that leads to asynchrony and the absence of simultaneity and the orderly meaning of things. The feeling of acceleration that is felt results from the perception of the discontinuity of an aimless time. The dispersion of time is responsible for the temporal asynchrony that makes time feel faster and faster. This dispersion of time does not allow any experience of duration and permanence for the appropriation of knowledge (Han, 2016).

The breakdown of current life also makes it difficult to develop a referential system that preserves identity due to the inability to perceive events in this system of approaching and identifying the subject himself. The revelations, interruptions, outcomes, limits, and transitions are movements that constitute the sense of time. The lack of connection of fragments of time gives rise to a feeling of increasing speed. The acceleration intensifies insofar as the events cannot articulate with each other and involve the subject as an object of the experience itself.

The current acceleration also results from the inability to complete and finish something that has been started. Time is urgent because the cycle of the process is never concluded, the continuation of things in due time, outlining a path, the course of what it is proposed to do. Acceleration suppresses regulatory limits, joints, and the rhythm of time. Thus, time loses the space that holds it, that guides or sustains it. Time needs temporal gravitation to ensure that the past and the future understand the present. With a trajectory in space, this author argues that the temporal tension forces the present to remain, giving meaning at the expense of constant and aimless flight.

Han also stresses that the daily hyperkinesis (excessive movement) deprives the human being of contemplation and the capacity for delay as an experience of knowledge. Time can only persist in the context of a temporal tension with a determined space. The temporal dispersion does not distinguish one moment from another, and all moments are the same without their own space. Thus, the acceleration in the process does not allow the distinction between the things that can be constituted divergent and independent forms with their own identity and memory. The experience encompasses a broader temporal space because it requires intensity and immersion, while the experience establishes only a spatial two-dimensionality without depth. Hence an ignorance of the things of the intelligible world.

Nowadays, almost everything related to temporality becomes obsolete more and more quickly. The constant update (upgrade) makes things not last

2. Surveillance Capitalism monetizes data acquired through cyber surveillance. It arises due to the coalition of digital power and with the intrinsic indifference and narcissism of financial capitalism with a neoliberal vision that has dominated commerce and industry for the past three decades in economies whose dependence is based on the globalization of computer mediation that produces and disseminates a new expression of power, big data and negationist thinking.

because they fail to seduce. The performance outdate (abbreviation) announces a death silenced by the appearance of new things to replace them.

Mary Midgley (2019), when she wrote the *Manifesto, What is Philosophy for?* guarantees the certainty that knowledge can only be understood in the intervening period. What will happen during an experience that is limited between the past and the future. The present intensifies because the action is enriched by any tension exerted on the mind to trigger more responsible emotions/reactions.

5 TEMPORAL DISPERSION CRISIS

The paradigm of comfort and well-being involves the desire to enjoy all the options that arise and maximize all the possibilities that contribute to an ideal of life.

Acceleration presents itself as a response strategy to limiting the life span that haunts human beings. It is believed that the increase in speed increases the number of options to achieve this ideal of the fullness of life as a product of the quantification and consummation of opportunities that can be enjoyed through this acceleration. There is a need for a synthesis resulting from a tension of the narrative developed by the intensity of the events, a narrative generated by the consummation and not by the enumeration of events that comprise everyday life (Han, 2016).

Consequently, the lack of narrative tension makes it impossible to keep long attention on things. Perception constantly needs new information and novelty to stay alert. Perception is not allowed to delay contemplation. Time is discontinuous; it does not articulate events with each other, generating a spatial relationship, a duration. The anxiety of constantly starting over because of the inability to complete, always choosing new versions or options, causes an impression of acceleration that results from the absence of an experience of duration. In fact, the feeling that time passes faster and faster is because the capacity for delay is lost and because the experience of duration becomes more and more exceptional. When time acquires duration, it gains a narrative tension with dimension in depth (x, y) and amplitude (z), conquering space.

Time becomes virtual when it loses the narrative tension, breaking the historical line into random and aimless points. The events happen, and the information data have no narrative duration and are not linked to the human being. A time of points is not a time of history. History imposes a narrative trajectory on events, selects and articulates the narrative plot. When the story disappears, an accumulation of information forms that congests time. The data clusters that constitute the information do not gravitate or follow any direction and do not build a narrative continuity or duration. The information creates

a temporal disaggregation, a time of points housed in the “cloud.” The cloud metaphor refers to the place of memory and the storage and calculation capacity of computers and shared servers, interconnected through the Internet, following the principle of the network. Between the points there are intervals where nothing happens, there is no sensation, the emptiness and discomfort are felt, there is no space for thinking because sporadic thinking is not constituted, without any regulatory pattern.

In this way, this time of points tends to suppress or reduce the empty intervals through the acceleration. The intervals are eliminated in favor of proximity and simultaneity, and everything happens in real-time, immediately, and globally. To avoid the delay, it is sought that the emotions fire more and more quickly to appease the anxiety and frustration.

The electronic memory that allows repetition cancels the time interval that is responsible for forgetting. The past is available at any time. Time is freed from space itself. The instantaneousness of electronic mail removes the path as a spatial interval. Distance is eliminated, everything is available, here and now, leading Han (2016) to vehemently emphasize that everything that cannot be done in the present does not exist.

6 INTERNET OF EMOTIONS (IOE)

The duration of things presupposes their life cycle. The poles that define the beginning and the end distinguish the “there” from the “here” and establish the difference between the invisible and the visible. The interval is the space of time between the limits that it slows down that creates order, avoiding the overlapping and disarticulation of events. It gives a certain orientation, a sense of things through transitions and ruptures. Enables the determination to complete. In a disoriented space, the action can be stopped and restarted again. Given the multiplicity of connections, the conclusion may be meaningless. As there is no continuity, it is constantly decided. Possibilities always arise, resulting in a discontinuous time where there is no capacity for decision because new possibilities are constantly emerging. Thus, the network space is defined by its multiple connection possibilities (links). There is no continuity of stages and transience but events or circumstances whose importance is random. No option acquires an absolute preponderance over the others. Han (2015) explains in his *Psychopolitics (Neoliberalism and new techniques of power)* that the space of the network (world wide web) has no history: anxiously, one passes from one link to another; automatic likes are continually stuck; impulsively, negationism emerges due to the absence of sustainable argument, fueled by individualism and hedonism that endow the irresponsible, vague, and even imposing knowledge (punctual thinking) with illusory authority.

As an extension of the current Internet, the Internet of Things provides everyday objects with the intelligible and communicative ability to connect to the Internet. The connection to the global computer network thus makes it feasible and remotely controlling the objects and allowing the objects themselves to be accessed as service providers. These new competencies of common objects generate many possibilities, both in the academic and industrial spheres, and simultaneously reveal wide-ranging threats and major technical and social challenges (Santos et al., 2016).

This time, the loss of the linear condition of the world is enhanced, developing new forms of perception in the face of non-causal behavior. It starts to move and to orient itself in a thick cloud of events. Ethical-moral tensions result from this overlap, and the narrative is no longer linear but is constructed from a dense amalgam of possibilities. On the Internet of emotions, data such as images, information, and events do not have a long-term effect. They are viral on impact and the replica, so they are superficial and transitory. Knowledge results from an overlap that includes the past and the future in the present, and the time span that characterizes it is increasingly reduced. The production of technologies and digital products is also the result of this temporal abbreviation. Obsolescence increases due to the impulse of the novelty that reduces renewal cycles and increases consumerism (Papaneck, 2005) (Baudrillard, 2011). There is no place for effective work, objectives are not achieved, but a multiplicity of versions and variations are acquired. Everything is present and simultaneous with the possibility of being, but now. The temporal framework of the present is close to the instant, and, thus, the sense of delay is lost, of the temporal extension of the duration that predisposes to the contemplation of things and to the necessary critical speculation.

The truth is a relational event (Morin, 2008). It happens when things are related to each other by any kind of affinity or proximity. There is a need to discover and understand the modes of connection and correspondence between things, how they relate and how they communicate.

Han (2016) and Bachelard (1978), at different times, already foresaw that immediate pleasure does not give place to beauty because the beauty of things only manifests itself much later, according to the understanding of the other in space. Discarding emotions, the feeling is not consolidated.

In the absence of the duration of things, acceleration is just an incremental quantifier to compensate for the lack of permanence of things. According to Midgley (2019), the paradox is in the human being's desire to achieve immortality in this way since this remains in things and things remain as references of the world that last.

7 HOW TO DESIGN EMOTIONS?

Pallasmaa (2011) refers that the representations of real or imaginary experiences refer to scales that share space and time, relating perceptions and experiences to each other. When these scales are represented, the limits of personal experiences are extrapolated. The known world expands to places beyond those that can be explored by the senses and to times beyond the duration of life, in the past, in the future, during existence, in parallel through creativity with imagination, drawing emotions. This architect and philosopher (2018) add that the images that emerge from matter project experiences, memories, associations provoke more intense and significant emotions than those evoked by form.

For Damásio (2013), neuroscientist and philosopher, emotions result from natural reflexes in the face of events; they are a physical and chemical response commanded by the human brain. On the other hand, feelings are a consequence of emotions and are felt by each person according to their experience, personality, culture, and creation. Feelings can be defined as the observation of emotions and reactions caused by them. Emotions are unconscious reflexes of the human being, and feelings are more conscious and are related to the assessment of emotions. And they are complementary because the emotions experienced give rise to the feelings.

Damásio defines emotions as mental states that emerge from the neural representation of the responses that constitute an emotion. The neural patterns that represent emotions in the body and brain are the substrate of the feeling and are sufficient to allow the feeling to occur as a mental image, but not for a feeling to become conscious. Emotions cannot be known to the individual who owns them before there is awareness.

At first glance, there is nothing characteristically human about emotions since animals also have emotions. However, there is something very characteristic about the way emotions are linked to the ideas, values, principles, and complex judgments that only human beings can elaborate, and in this connection lies the legitimate idea that human emotion is distinct. As such, the human being must be more responsible when recognizing this evidence.

In the strategy of survival, it is extremely valuable to have feelings. Emotions are useful in themselves, but it is the process of feeling that alerts the organism to the problem that the emotion has started to solve.

The human being is programmed to react with emotion in a pre-organized way when certain characteristics of the stimuli in the world or our bodies are detected individually or together. The simple process of feeling begins by giving the organism the incentive to deal with the results of the emotion (suffering and joy begin with feelings, although they are enhanced by knowing). Feeling is also a basis for the feeling of knowing that we feel. In turn, knowing is

fundamental to the process of planning specific and non-stereotyped responses that can either complement an emotion or ensure that the immediate gains obtained by the emotion can be maintained over time. In fact, feeling the feelings prolongs the reach of the emotion by facilitating the planning of forms of adaptive responses, original and tailored to the situation.

On the other hand, given that we also can reflect and plan, it is with reason that we can control the influence of emotion. Ironically, the engines of reason also require emotion, which means that the power of reason reveals modesty.

Without exception, all kinds of human beings, from all cultures, from all levels of education, and all economic levels, have emotions, are attentive to the emotions of others, cultivate activities that manipulate their own emotions, and govern their own lives, in large part, by looking for a pleasant emotion. Today, we consume not only things but also the emotions they convey. You cannot consume things indefinitely, as emotions persist. These make the consumption field endless. The emotionalization of the merchandise and its associated aestheticization are subordinated to the coercion of producing (Lipovetsky & Serroy, 2014). The function is to increase consumption and production. However, emotions are more ephemeral than things. They do not stabilize everyday life. When consuming emotions, the human being does not refer to things but himself. The consumption of emotions intensifies individualism, hedonism, and the referential world that things mediate is lost.

Still, according to Damásio (2020), the fabric of our mind and behavior is woven around successive cycles of emotions followed by feelings that become known and generate new emotions, in a continuous polyphony that underlines and punctuates specific thoughts in the mind and the actions of human behavior.

In effect, the mind diverges from the traditional body-mind dualism and is restricted to a brain production that sees itself as dependent and constantly interacting with the senses and emotions. In his approach to emotions, Damásio visualizes them as patterns of nervous activation that correspond to states in our inner world. Thus, these cognitive representations of bodily states can come from common situations that give rise to fear, anger, pleasure, or love. These states are joined by a group of manifestations of the human body that complement the emotion nourished at the time or on occasion. There is a systemic dynamic between the brain, the body, and the mind with the external environment, resulting in the triggering of emotions and all their relationships. This dynamic allows us to verify the adaptive value of emotions to the environment, allowing it to regulate decision-making in the face of situations that may have internal disturbances or external conditions. In this sense, emotions act in the evaluations made by the subject on the world for later deliberation.

All of this does not neglect the environment from which the whole interrelated atmosphere becomes populated. In this course, feelings emerge, links to the world that are established from emotions, as frames cut out from the intensity of everyday experience.

8 SOCIETAL INTERVENTIONIST METHODOLOGY

In his book *The Strange Order of Things*, Damásio (2017) states that feeling is the mind in emotion, expressing what he considers as the critical distinction between emotional processes, which are action programs related to affects and feelings, mental experiences of the states of the organism, including the states resulting from emotions. Emotions are chemical, metabolic, and physiological reactions expressed in the body through a diverse repertoire of behavioral manifestations and have the particularity of being instantaneous and difficult to control but disguised by the people who experience them. Emotions are “triggers” for reacting to a situation or problem, and feelings are the reasons for reacting to a problem, and they monitor the success of the response or the lack of it.

Once again, emotions are spontaneous; they are things that happen to us, while feelings result from the meaning attributed by our mind to emotional events, being, therefore, a kind of reaction of reason, socialized by the individual biography. As such, they are things that the human being makes happen.

In this sense, emotions are reactions that we share with other animal species, while feelings are an exclusive attribute of species endowed with a mind; that is, they are exclusive to human beings, which are the only species of living beings endowed with subjectivity (Adorno, 0000).

That said, the question arises: to what extent can this distinction be operative for the definition of an intervention methodology aimed at developing emotional competencies?

However, the risk of this type of approach is to guide actions to train mere techniques for a relatively superficial behavioral cosmetic and not to encourage participants to a deeper process of reframing the mental states that underlie the impacts that the emotional “triggers” will eventually provoke in their lives.

On the other hand, if you feel, like Damásio, that feeling is fundamentally an inner mental experience and that it is not immediately revealed through the face, posture, or any other manifestation of an observable nature, then the approach cannot just focus on aspects of behavioral training for the identification and expression of emotions and will have to go through a slightly deeper process of self-disclosure of cognitive meanings relevant to humans and that determine their specific ways of experiencing emotional states. The question then arises as to what type of approaches may be more effective, in

general and in abstract terms. It is only intended to point out that the depth of a concept and the extension and scope of its possible meanings can be of enormous relevance for the definition of an intervention methodology in the societal scope more adequate to the objectives and results in the investigation of the teaching of Design.

9 CARING FOR MOTHER EARTH

Although we need a mind to be aware, we can have a mind without being. Consciousness, considered, seems to be a particular state in which the mind owns knowledge that identifies us as owners of that same mind, of the feelings and events that allow us to have a perception of ourselves, of the self.

Awareness brought an increased concern with survival, driving better management, and meeting the needs of organisms. It gives the human being to taste pleasure, but it also exposes her/him to pain and suffering and, with this, leads him to create ways to promote positive feelings and counter negative ones. The human being is manipulated by pain and pleasure, occasionally released by our creativity.

Therefore, it is recognized that feelings, as informative devices of the mind in emotions, can indicate the path of Artificial Intelligence, in the sense of rethinking the positioning that the human being has achieved as a species with a conscious mind, but that also underestimates the nature of which it is a part, not recognizing its dependence on intelligence different from other species. And it also points to the approach by Psychotherapy centered on the user and interaction in space, on the path of emotional and impulsive strategies that often correspond to behaviors in society, presenting patterns of stratification or dominance in subgroups of society, on the assumption that this is collaborative, allowing its members to benefit from relevance that would not otherwise be possible individually. It is also distinguished both the personal benefits and the social benefits that in many cases can be overlapped by an investigation in the Social Sciences, in the domain of Landscapes and territorial Dynamics.

The evolutionary process accompanies the human being, making him a complex being whose conscience allows the creation of a world that corresponds to his demands. He created art and religion, technology and politics, economics, and philosophy, but he is not aware of his current approach to the world, adopting a view stunted by the intrinsic need to escape pain and amplify well-being.

He should be more attentive and respect the intelligence, phenomenal and still misunderstood by nature, and the urge to identify priorities, recognizing the interdependence as the destruction that the human being inflicts on the Earth and his life is not very reactive.

Through emotions, we feel that we adapt to the world we know and feel, in which we relate to each other and ourselves.

There is a mental need to feel that one is attached to the continuity of time, and it is necessary to facilitate this experience in the world made by human beings. The subject is projected in space through the object, and the object is projected in time through the subject. Through a process of reversibility, the object returns to the subject, retroactively, enlarging it successively and ambitiously.

By developing a responsible experience, the human being will be able to work with information responding for his acts in a knowledge society and whose processes confer meaning, meaning, and value to the contents produced through the mediation of electronic devices and social media as tools and/or methods.

By taking advantage of personal experiences in interaction with others, human beings' design process and conduct are significantly changed. Information and communication may cease to be only of and for consumption and may be applied through learning from experimentation as channels of accountability for being human.

Currently, developing the object by the subject is an almost static and non-evolutionary process. Time is not allowed to reflect on the process because the acceleration and the absence of narrative tension do not allow for the delay of its due processing, with a view to a duration of things with their own value and meaning.

It will be necessary to promote temporal practices (within the scope of interventionist methodologies) of a societal nature that persist and give rise to the development of bonds with what precedes and what proceeds, creating a temporal continuity, a stable current of the present as a link between the past and future. Narrative, tradition, and ritual are some of the authentic practices to link past time, while promise, commitment, and responsibility serve to link future time. Consequently, they are temporal practices that can constitute the spatial experience of continuity with the present to develop a more authentic and lasting time through research by recognized, created, and enjoyed Atmospheres and Landscapes. The recalled emotionalization will be the common denominator for promoting practices to link past and future times in the instant of the continuous present.

It is necessary to subject the human being to the time dimension necessary to define the path of space, the configuration of form, and the transformation of matter. This time must have a poetic dimension insofar as it grants duration (the time it takes to feel) to transform the perceptual matter into the cognitive form of knowledge. This process, properly analyzed, reconciles all the movements of the thought (punctual, linear, circular) in a circular but upward movement of the spiral, drawn by the curved line that, without closing, goes around a point, moving away to use it progressively and regularly, so that it can guide the subject's

reframing, redesigning the thought in this post-historical time, where the delay (in space) and the duration (in time) presently fade away.

A spiral (procedural) thought can contribute to the incremental orientation of the knowledge that will come, establishing a process of producing emotions by anticipation (projetual). Working on the operationalization of this Methodology will be the path to follow through methodological experimentation underlying the practice in Environments Design. The process reflected here results from the sequence of sketches of thought that illustrate the geometric construction (Figure 1) of continuous learning in applying human creativity to stimulate creativity in education. Regarding the human being's capacity to unconsciously retain and reproduce acquired knowledge, it will be urgent to impress responsible creativity in the development of content, with a view to its application in the expansion of the mental repository whose emotions produced invest against the forgetfulness of the human being who protects and takes care of his only home, Mother Earth.



Figure 1. Reflections, due to their open nature, deserve sketches that are also evolving thoughts (Author, 2021).

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Emotions sparking innovation in lighting products design

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ABSTRACT: This chapter discusses the role of emotions in product design. Outputs of the human mind's interaction with the external world may be processed into inputs to inform the design process. Social, economic, and cultural frameworks affect individuals and institutions, actively participating with emotions to define reality. Addressing cognitive, affective, and social dimensions legitimizes choices in product development. This study also supports the creation of territorial network systems as opportunities for new semantic paths and knowledge sharing. Concerning the design of a new line of lighting appliances, enterprises from three different sectors, lighting appliances, raw materials, and entertainment, collaborate towards a better product, performance, environment, and quality of life. The Altempo Design Research Group will mediate this action, the Polytechnic Institute of Viana do Castelo (Portugal) team, and the Research Centre for Architecture, Urbanism and Design (CIAUD). In methodological terms, the study presents a qualitative-based non-interventionist approach, aiming to prove that a *modus operandi* that fosters interaction among all the intervening parties constitutes an action of redesign with the potential to contribute to the wellbeing of individuals, communities, market sectors, and the environment.

Keywords: Territorial network system, Theatre, Music, Method in design, Sustainability

1 INTRODUCTION

Etymologically, the term *emotion* derives from the Latin *emovere*, meaning outward motion. Aristotle already characterized this displacement and its subsequent implications in creation as causes that make human beings change and introduce changes in their judgments insofar as they involve pain and pleasure (Aristotle, 2020, 106).

Although modern science has not yet reached a consensus on what emotions are, they may generally be considered as individual reactions to external stimuli. Intuitive feelings are distinct from reasoning or knowledge and are also affected by the perceived circumstances, to a degree of pleasure or displeasure.

The changes mentioned by Aristotle, or the motion-triggered by emotion, are probably affected by the individual's ability to perceive and process her/his interaction with reality and external events.

This variability is supported by different authors whose thinking also influenced social sciences in Western culture. However, this study pursues a semantic, aesthetic approach and not neuroscience, historical analysis. For the present study, emotions are regarded as essential for how human beings comprehend each other and the environment they interact with. The human ability to experience emotions is adjuvanted by understanding such emotions and give them meaning.

The attribution of meaning recognizes individuals' cognitive, affective and social dimensions (Nietzsche, 1979, 90). Nonetheless, in the interaction between humans and objects, objects are often categorized as conveyors or carriers of emotions. They support narratives to the extent that from the moment an object appears in a narrative, it acquires a special power, it becomes like the pole of a magnetic field, a knot in a network of invisible relations (Calvino, 1994, 49) as if the objects were

glorified and enhanced by the designer; admired and domesticated by the user (Baudrillard, 1968). This is supported by Donald Norman (2005) when he argues that objects take on an important role at different times in life, transforming into stimuli for emotions, establishing strong relations with individuals, and becoming public expression of the identity of being human.

Subsequently, designing a product makes the designer responsible for considering qualitative factors based on its values and unique features. More precisely, it alludes to the factors relating to the use, fruition, and individual or social consumption of the product (functional, symbolic, or cultural factors) as to those relating to its production (technical-economic, technical-constructive, technical-systemic, technical-productive, and technical-distributive factors). (Maldonado, 2006, 14).

Considering these assertions, the research question regards the role of emotions in developing a new line of lighting products, integrating into the project the circumstances and the social, economic, and cultural factors that define the current reality.

2 BACKGROUND

This article analyses the concept and the process of generating ideas and creating hypotheses to develop a new line of lighting products, considering emotions as essential elements in how individuals relate to each other and deal with reality.

In the ongoing pandemic crisis affecting all sectors of society, domestically and abroad, it is essential to understand how external factors may affect product design and become part of it through emotions and reasoning, taking as given that emotions interfere with rational decision-making. The challenge is to make capital out of the present situation, seize opportunities, profit from the available inputs, reassess all conditions, and adapt to change.

For companies, it is an opportunity to rethink the life cycle of the products they manufacture. Particularly how they respect the life of living beings and their environment. Rethinking new hypotheses allows reflecting on different approaches for product design. Integrating a systems perspective to increase material efficiency, recycling and substitution involves analyzing all life cycle stages and addressing the product's function as introduced in the system (Vezzoli, 2004). It is also essential to consider how products will be brought to the public since digital platforms replace traditional physical spaces. Due to public health concerns, design fairs and exhibitions congregating large audiences, and amounts of goods and information are no longer a safe option. It may be an opportunity to envisage new interactive experiences between individuals

and products, conveying emotions and knowledge. Product presentation design now requires increased social responsibility, including choosing more sustainable materials and production processes.

More intimate and solemn spaces such as churches, theaters, monasteries, or museums offer a dignified, impressive stage to display products and their majestic architecture enhances the synesthetic multimedia experience of the audiences, fostering positive emotions while respecting public health restrictions.

Like many other sectors of the economy, the live entertainment industry faces subsistence concerns, and the creation of links with other sectors is an opportunity for new positioning in the market, presenting what it has always produced in updated scenarios. Creating a territorial network system that crosses manufacturers and entertainment, specifically music and theater, is an opportunity for motion, for change, supporting local production.

3 AIMS

In pragmatic terms, this article supports the possibility of organizing a musical and theatrical show in a 16th-century monastery cloister in the north of Portugal, built between 1566 and 1576. The musicians and actors will have a Dominican temple as stage and scenario, with stage and ambient lighting provided by the new lighting appliances. The lighting sector is characterized by new technological features based on sustainable requirements of low consumption and high efficiency.

New semantic values will thus strengthen the poetic function of lighting design. This project aims to build a territorial network system in the North of Portugal, profiting from the intersection of existing resources, combining the synergy of different professionals from three different areas of knowledge.

The academic and research partners are the Altempo Design Research Group (designers and researchers Liliana Soares and Ermanno Aparo and two former students), the Polytechnic Institute of Viana do Castelo team, and the Research Centre for Architecture, Urbanism and Design (CIAUD). From the manufacturing area, two companies from the North of Portugal, the Furnor company, dedicated to the manufacturing and finishing components and metal parts for bathroom accessories and lighting fixtures, and Amorim Isolamentos, specialized in cork insulation, with extensive research and development work for applications in new products. Finally, from the entertainment area, the professional theatre company CDV-Centro Dramático de Viana do Castelo, and the Professional Artistic School of Alto Minho (EPAAM-Escola Profissional Artística do Alto Minho).

4 METHODS

This study is based on a mixed, non-interventionist, and interventionist methodology, integrating quantitative and qualitative methods. In the non-interventionist stage, the study collected and analyzed theoretical concepts and literature reviews and constructed case studies that substantiated the topic.

This *modus operandi* allowed identifying research hypotheses and triggering multidisciplinary brainstorming so that the partners could produce mutual processes. Still an ongoing project, this article presents the stage of collecting and analyzing the concept and generating ideas. The decision to focus on a part of the whole is based on the characteristics of our complex feeble reality, enhancing diffuse scenarios filled with uncertainties. It seemed pertinent to address an autonomous pattern (Alexander, 1977) with a common-base rationale embracing old concepts to transform them into new definitions.

Ultimately the decision is to interpret the past with efficiency and potentially able to reach innovation. At this stage, Liliana Soares and Ermanno Aparo met in person with the musicians who presented the musical program with four pieces for a wind quintet and two pieces for a string quartet (Table 1).

Table 1. Composers, pieces, and musical training.

Composer	Piece	Musical Training
Ferenc Farkas	Early Hungarian dances from the 17th century (1959)	Wind Quintet
Gustav Holst	A-flat Op. 14 (1903)	
Malcolm Arnold	Three Shanties (1943)	
Claude Debussy	Reverie (1890)	
Felix Mendelssohn	Quartet n°2, in A minor, op.13	String Quartet
Antonín Dvořák	F major, Op. 96, the American Quartet (1893)	

Due to the confinement restrictions, the Altempo group discussion meetings took place online, targeting the themes, the surrounding contexts, and the culture in which the musical pieces were produced. First, each of the four Altempo elements studied one composer. The themes were then presented and discussed among the four on a virtual platform. In a third stage, the first generation of ideas began, with the Furnor company production culture) as a limit (works in copper) and cork as the specialty of the Amorim Isolamentos company. In a fourth moment, the group met again to present the first sketches.

Each element of the design group employed a singular, distinct trait, using materials within his

reach. One element worked with lighting using renders and mock-ups in materials he was familiar with. Another one used sketching and computer rendering. The third element sought to understand possible mechanisms and configurations, printing solutions on a homemade 3D printer, taking measurements, correcting and printing again, and the fourth member used hand drawing in India ink and watercolor.

In methodological terms, this diversity guided the design process so that emotional experimentation was taken to the extreme because it forced group members to criticize the work. After this process, the four hypotheses reached were exchanged among the team members for appropriation and examination by another designer. This rationality would drive the exercise of emotions to the limit. Before the crucial moment of presenting proposals to Furnor company personnel, there were more virtual online meetings.

5 RESEARCH

The research stage consisted of the interpretation and storytelling of the message of the composers.

Considering that the group Altempo consisted of four elements, four composers were selected. In this process, cooperative research to find common elements among the composers seemed more pertinent and useful, and the semiosis process started with the search for references to the concept of Nature. In particular, the presence of cork or oak trees in the composers' works. In ancient mythology, it was found that each oak tree is the home of a nymph who protects it during its life cycle. Since the purpose was to design and develop lighting appliances, the metaphor of developing products in cork to bring light to the ambient and the life of living beings led the analysis to a second strong concept: Mythology. The third concept to be unveiled was Ambient, to foster a renewed, careful design favoring a more responsible and critical society.

The project is based on new rationality that accepts the experimentation of emotions to the limit as a premise for creating a new line of lighting appliances, including four types of products and a live music event. The idea of designing four lighting products as modern-day nymphs who protect and shed light on living beings and their environment guided the decision-making process concerning the themes and the composers. Although technology may entail trivialization or even oblivion, the concept of illuminating and light in a broader, more articulate interpretive universe allowed amplifying expressiveness and determined the evolution of simple concepts that were decisive in the decision process. The following composers were chosen: Ferenc Farkas (1905-200), Gustav Holst (1874-1934), Claude Debussy (1862-1918), and Antonín Dvořák (1841-1904).



Figure 1. Mind map of the Project. Source: The Authors.

5.1 *Ferenc Farkas and the piece 'The Early Hungarian Dances from the 17th century' composed in 1959*

From the analysis of the work 'Early Hungarian Dances from the 17th century' by Ferenc Farkas, it was understood that Hungarian dances were classified as Hajdú-dance (16th-17th century), Verbunk (18th-19th century), and Csárdás (19th century). In Hungarian culture, *verbunkos* is "a musical (and with the name verbunk a dance) genre of great importance which became a national symbol in the 19th." (Tari, 2012, 81). This type of dance was chosen as a reference to develop a semiosis process moving forward through associations. To think is to connect signs in a concatenation, even though we generally do not realize it (Vulli, 2000, 37).

Using an archaeological analysis process, it was found that etymologically the term *verbunk* derives from the German *Werkbung*, meaning recruitment. In the early 18th century, during Austrian rule, recruits from the Hungarian imperial army regiments danced and drank in bars and carousels while singing and dancing. Those dances were performed only by men who wielded sticks and moved forward, facing each other in a circular movement representing the battles they were involved in. On the other hand, one of the many Hungarian conquests of that busy time was taking the 15 fortresses in the Carpathian Bay, forming the second-longest mountain range in Europe. In terms of plant species, the Carpathians concentrate one-third of them all. Specifically, analyzing the fauna and flora of that habitat, it is apparent that there are several endangered species. Some birds such as larks and colored rollers inhabit and build their nests in the mountains or oak trees.

In their application to the design of a lighting product, these considerations were understood and related to the project's initial concept: the possibility of providing a synesthetic experience, emotions, and knowledge, narrating ecological concerns and sustainability values, using cork (derived from oak) as

material. On the one hand, in terms of composition, the product system should consist of modular dynamic elements representative of Hungarian male dancers. On the other hand, the lighting design should reference the dance that was performed in silence and a secret place as it happened in the first Hungarian dances of the 17th century.

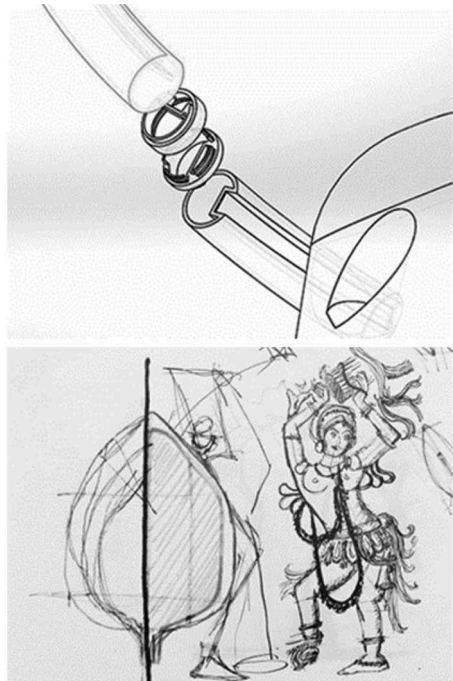


Figure 2. Top: Advanced design of snap-fit connections for 'The Early Hungarian Dances from the 17th century' by Ferenc Farkas. Bottom: Draft for 'Wind Quartet A-flat Op. 14' by Gustav Holst. Source: The Authors.

5.2 *Gustav Holst and the piece 'Wind Quartet A-flat Op. 14' composed in 1903*

The work of Gustav Holst refers to the English context where he was born and particularly to the English madrigals. Astronomy, nature, and mythology also dominate Holst's thinking. Early on, the young trombonist showed great interest in translating Sanskrit literature and Bhagavad Gita's philosophy.

Committed to this culture and the possibility of crossing it with English art, Gustav Holst takes hermeneutics as a creative process and appropriates the reference of the East to the limit, trying to learn Sanskrit and understand the essence of the concept. The objective was to use it in his music compositions, giving them a unique identity. Although he never

converted to any religion, his work attitude was characterized by the project's orientation towards the process and not the beginning or end of things. According to Imogen Holst, the composer advocated: "get on with the job, whatever it is, and don't bother about what's going to happen" (Holst, 2012, 19). In particular, the work *The Wind Quintet A-flat Op. 14*, which dates back to 1903, the year he stopped playing the trombone to become a teacher at a girls' school, is a piece with four movements, and the composition connects the two apparently opposed cultures. In terms of composition, the piece is also celebrated by the presence of Nature, which according to Holst, excelled for enjoying supernatural powers.

In terms of projectual interpretation, the analysis of this piece and the historical, social, and cultural context of the beginning of the 20th-century highlight some important concepts in the product design, namely the duality between the concepts of intensity and dynamism. In intensity, dualism results from breaking a classic harmonized order with elements that determine a new organization. In this sense, the notion of dualism determines the identity of the shape of organisms, establishing points between the harmony and chaos that characterize our reality.

5.3 Claude Debussy and the piece 'Revêrie' composed in 1884

To interpret 'Revêrie' (1884) by Claude Debussy, it is necessary to dive into the reality of the time, understanding the importance of Nature images and colors in his work. During childhood, Debussy took long walks in the Bois de Boulogne park in Paris, a common practice among Parisians:

Lady Morgan wrote in 1817 that on Sundays the majority of the Parisian bourgeoisie was "spread out on the Boulevards, the Champs-Élysées, and the Tuileries and Luxembourg Gardens," which were open to anyone decently clothed. In the 1830s the Bois de Boulogne was a realm of high-class leisure. (Hahn, 2009, 47).

This park was once a large forest along the River Seine, between Paris and Rouen, the Forest of Rouvray, which among other species had large oak trees:

In 1835 an immense number of pines were destroyed in the forest of Rouvray; thousands of oak-trees at another time were cut off (...) (Zorn, 1867, 376).

This reinforces the choice of cork as raw material in the design of a lighting product that should also highlight the characteristic of the promenade. In 1905, Debussy took up residence with his family on the Bois de Boulogne avenue in Paris (Lesure, Rolf, 2019, 229), and was influenced by distinct artistic currents and movements such as Impressionism, Pre-

Raphaelism, Art Nouveau, or Japanese Engravings (Isacoff, 2012), namely William Turner, Claude Monet, and Katsushika Hokusai.

This latter is decisive to understand Claude Debussy's creative process, which appropriates the Japanese vernacular aesthetic concept to act with spontaneity and originality. It is an experimental hermeneutic process as opposed to theoretical intellectual sophistication. There is also a clear ascendancy of the Parisian intellectual fervor of the time, more focused on images than on things themselves. According to Debussy,

musicians listen only to music written by skilful hands; they never hear what is written in Nature. There is more to be gained by seeing the sun rise than by hearing the Pastoral Symphony. (Debussy cit in Vallas, 1929, 8).

This suggests that design will be more effective if it produces unique and creative objects guided by culture. The aim is to achieve geometric simplicity at the visual level and structural simplicity at the abstract level. As with the piece *Revêrie*, images are stronger than their referent. Therefore, the decision is to draw combinations and use color in the light instead of color itself.

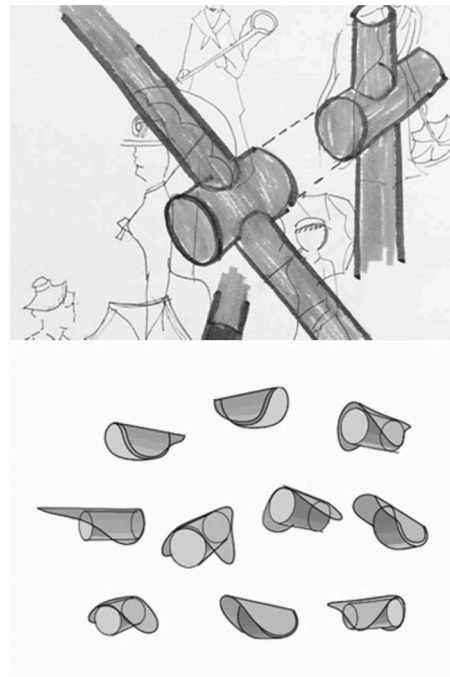


Figure 3. Top: Draft for 'Revêrie' by Claude Debussy. Bottom: Sketch for 'F major, Op. 96' by Antonín Dvořák. Source: The Authors.

5.4 *Dvořák and the piece in 'F major, Op. 96', composed in 1893*

The String Quartet in F major, Op. 96, nicknamed the American Quartet, is characterized by its melody and technical simplicity. In addition, it is important to note that the American Quartet constitutes a different musical approach from the author's typical repertoire.

The name of the piece and its singularity share the same point of origin during his stay in the United States of America, more specifically in the village of Spillville.

The inspiration for the piece is born in this new contextual reality for Antonín Dvořák during summer vacation. He moves away from the bohemian life he lived in New York to immerse himself in an environment closer to his Czech origins.

It was in Spillville that the composer met members of the Kickapoo Indian tribe and heard their music. It was also there that he wrote two of his greatest chamber works, the op. 96 string quartet, called American, and the op. 97 string quintet. (Carter, 2000, 24).

His stay in the North American state of Iowa and his tribute to Native American and flute music would influence his creative process. Although historians deemed the Kickapoo Indian tribe music performances quite kitsch, for Dvořák, they had a powerful impact because

Dvořák realized the importance of this tradition, and that of black music, to the American narrative, and hence to any 'national' music that might emerge from it. (Vulliamy, 2020, 159).

Specifically, in the third stance of the 'American,' there is a direct allusion to the bird Scarlet Tanager in a stylized way, a sound the composer often heard during his walks,

(...) as he walked, sat and worked, Dvořák was entranced by the birdsong around him and annotated it musically, so the call of the scarlet tanager finds its way into the quartet. (Vulliamy, 2020, 160).

In terms of projectual application, this analysis indicates that the Scarlet Tanager should be interpreted as a singular, primitive, and vernacular premise, alluding to cork as Portuguese identity and copper as a reference of the Furnor company culture. In the same way, this approach interprets in detail the characteristic elements of the bird, as did the presentations of the Kickapoo Indian tribe. Also, the bright orange and black colors of the Scarlet Tanager refer to a strong contrast. Concerning the lighting product, they are inscribed in the choice of materials and the exploration of the visual attributes of shape (Munari, 2009).

Thus, the rough texture of cork contrasts with the smooth texture of copper. The linear behavior of cork contrasts with the organicity of copper, and the dark color of cork contrasts with the shining colors of copper. The vertical movements of the Scarlet during his feeding process or in his usual site also suggest the development of dynamic and versatile products in the functional sense. Finally, "an Indian drum rhythm appears in the scherzo of the E-flat quintet" (Vulliamy, 2020, 160-161). The system will be based on a simple copper structure similar to the structure of the drums used by those tribes.

6 FUTURE CHALLENGE

In the short run, the next stage of this research project is to present the ideas to the involved manufacturing companies. In the medium run, the project will include creating prototypes and an experimental event to demonstrate how the entertainment industry and product development companies may foster innovative projects for mutual profit. This research and development project may constitute a model for design-based collaborative platforms.

7 CONCLUSIONS

This article addresses how emotions may be experienced, understood, and used as tools in the design project. Connected by logical reasoning to space, time, and circumstances that define reality under appreciation, emotions are understood as plausible clues to understand the world and convey knowledge. The design project to develop a new line of lighting appliances was an opportunity to assess the role of emotions in design.

Outputs generated from the interaction of the human mind with the external world, emotions are processed into inputs to inform the design process. Identified through reasoning, the external factors defining the current reality are integrated into the project development. Design also canvassed inputs from the interaction between Altempo Design Research Group (Altempo) - the team from the Polytechnic Institute of Viana do Castelo and the Research Centre for Architecture, Urbanism and Design (CIAUD) and different economic sectors from the North of Portugal, including manufacturing companies and entertainment companies. Those inputs allowed developing a product that conveys values and culture, indicating a trajectory of resilience and continuity in the market.

The decision-making process was based on past and present interaction, effectively interpreting present and future concerns efficiently. This process implies searching beyond the usual comfort zone, reaching towards long-standing, hibernated concepts

and definitions, to transform them into a product that fits the requirements with the potential to compete in a complex, uncertain market.

Along this design process, emotions sparkled innovation. Four music pieces by four Western composers were chosen for what they held in common. The universal experience of Nature was identified in a rational process of connecting signs.

This study supports collaborative design processes for design research and encourages the search for synergy among different areas. Design teaching advocates challenging students to predict the product life cycle and its impact on the environment and living beings. For manufactures, it shows new ways to inscribe the identity of a new product. For live performances, it suggests possibilities to establish new partnerships and new paths towards financing and profitability.

Lastly, the designer who cooperates, respects, and values his project partners take on a social commitment. His production transforms into a contribution to knowledge, favoring links between emotions and reasoning, both taking place inside the complex human mind in interaction with an ever-changing environment.

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Experience, body, and memory in creativity

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ABSTRACT: Creative processes are somewhat enigmatic and difficult to categorize as a scientific matter. They constitute an experience that can be understood as common to all human beings. We have all experienced the act of creating, whether we have the formal education that, in certain areas, such an act implies. This act is on display essentially through the design disciplines, on the experiences of the body in space, and the perception of such acts as perceived through our senses. However, it is through memory that these perceptions are embodied in the act of creating. In this article, we propose to analyze two factors that we believe to be significant. The first is the relationship of reading as an internal body experience for the construction of memory. The second is the experience of the body in space as an external experience in the construction of that same memory. From here, we will try to closely examine these two factors and processes that lead to the creative act with the body as a mediator. We will try to unveil the role of memory as fundamental in transforming what we remember into what we create.

Keywords: Project, Design, Brain, Experience, Creativity

Architectural structures facilitate memory; our understanding of the depth of time would be decisively weaker, for instance, without the image of the pyramids in our minds. The mere image of a pyramid marks and concretizes time. We also remember our own childhood largely through the houses and places that we have lived in. We have projected and hidden parts of our lives in lived landscapes and houses, exactly as the orators placed themes of their speeches in the context of imagined buildings. The recollection of places and rooms generates the recall of events and people. (Pallasmaa, 2008, pp. 190–191)

In the first lines of the introduction to the Portuguese edition of his book, *A History of Reading* (1996), Alberto Manguel (b. 1948) gives an account of his experience of reading: “...é o que dá cor a todas as experiências, o que as torna mais suportáveis, mais razoáveis.”¹ (Manguel, 1996/2020, p. 15). That is, we have so much to say about what we read, even if for the common reader, sometimes, what we read seems not to persist in our short-term memory. But when we dedicate ourselves too closely to examining what is left in us from that reading, we realize that we have much more to say than we ever thought we knew. The constant exercise of reading, even if

not in a generalized way, may seem unworthy to us. What we read seems to have no apparent relation to what we can remember, or we cannot immediately relate what we read to what we have experienced. What emerges from the reading experience, although not in a generalized way, is that there is a great deal of accumulated experience, a kind of latent memory that persists through the act of reading, which seems not to be deliberately accessible. Sometimes, we cannot remember exactly a single passage from what we have just read. However, if we allow ourselves to think, to go through these memories as if exploring our memory in search of this experience, we discover that these constructions are much more substantial than we initially thought. New relationships have been established as a result of both the act of reading and the time that has passed since such an act. We can then better understand the characters’ motivations, as if only reachable at a distance from the act of reading. These links, or new relationships, are part of work inherent to the act of remembering, which in turn reminds us of the creative process. This state is a system that stems from memory, the effort to remember, and the time spent in the experience. New links are thus established between the characters and the plot, new relationships are unveiled, or a side of a character is finally revealed that was not accessible until then. Sometimes, even quite regularly, characters from one book seem to live in others, which would otherwise be impossible, either because of affinity between authors or time

1. “...is what gives color to all experiences, what makes them more bearable and reasonable” F. T.

impossibility. Everything happens passively in our minds if we just set out to revisit our memory.

Like the act of reading, the built heritage represents a wealth of elements, which, although different from the text, also constitute a receptacle for the act of creating. If we associate the legacy of a book and that of a building, we realize that both constitute the society's cultural heritage. Even when in ruins, the building has a story to tell. It becomes evident that both represent experiences to different degrees for the human body. The book allows the exploration of a fictional and immaterial universe. For buildings, although the experience is predominantly physical and sensory, it also contains something immaterial within itself. In other words, the book shapes our body from the inside out; the buildings shape that same body from the outside in. These two modes of relating to our surroundings are examples of the formation of the body as an entity of creativity in design. Buildings act as mechanisms of memory. They materialize the passage of time and render it visible; they also function as receptacles of memory, and lastly, they stimulate remembrance and imagination (Pallasmaa, 2008, p. 190).

We have been witnessing increasing dilapidation of the built heritage. Just as reading habits are slowly crumbling under the spell of technology, the preservation of the built environment has also been relegated from the present time. In terms of their heritage value, the preservation of the collective memory of buildings is a question that has haunted much of the last century and is still unanswered. Like a book, which perpetuates the history of civilization through words, the city also perpetuates that same history through buildings. The development of cities, whether through industry or more recently technological advances, has created an increasing alienation of both physical and historical dimensions of the body. However, this understanding of cities is not new. To start the conversation and render it functional, we propose an analysis of the value of the relationship between the body and heritage, not only as a collective memory value but as an emotional value for its inhabitants. To understand how they shape their identity and what these relationships contribute to the body and its relationship with the act of design. In a broader field, the global identity of a population, which, even if it does not relate directly with places, believes itself to be identifiable with them. For those who live or have roots in them, this relationship also sustains an emotional aspect. These feelings of belonging tend to create bonds of identity, according to who we are as subjects in society, as individuals, or to be significant in our relationships. This connection is fundamental to preserving a collective identity as the primary source of what we are and what we create as a product of the intellect.

The word *lugar* has a particular meaning in the Portuguese language. Besides its Latin root, *locus*, as a place or site for the body, it sees its meaning amplified in the Portuguese language, as the designation of a small locality, a cluster of houses, or even a particular house or dwelling. This sense of permanence, rootedness, which the word grants, still does not extinguish its meaning. A *lugar* can be a place of passage or a place of permanence. There is an implicit sense of movement, not only as in a specific point in space but also as the movement of the body and the object it occupies. In other words, although it is physical and determined in space, the body relates to objects that surround and influence it directly, physically, and mentally. To make this point, the destruction of cities in the Second World War is recurrently invoked. This left a wound in the memory of their inhabitants, disabling their sense of belonging to a place, which was then reduced to rubble. This destruction of the building enables the uprooting of memory through a place, or in this case, its absence through devastation. We remember Mikhail Kalatozov's (1903-1973) film *The Cranes are Flying* (1957) — it is easy to convey this image through Veronika's eyes, when she opens the door of her house, of what was familiar to her memory, and sees through it the whole city in ruins, because the building had been bombed. Her whole sense of identity was at that moment altered, and her sense of belonging to a place was extinguished. The relationship of the body to the place was somehow altered.

Of course, we are talking about extreme situations of forced erasure by war destruction, but the erasure through the slogan of progress is curious. We must analyze the effects and not the causes of this erasure of memory in terms of its identity value. In this way, it becomes necessary to contextualize the value of memory to represent this value for the body as a design entity. In Alois Riegl (1858-1905), we find an important definition of the monument's value, which by definition is a human work intended to preserve the memory of human deeds or achievements for future generations (Riegl, 1903/2013, p. 9). Certain that we cannot elevate all buildings to a monument status, it becomes important to reflect on the lapidation of this heritage, relevant in the development of collective memory and identity — mainly in the lapidation of the heritage of vernacular architecture. Riegl also shows us that the value of intentional memory has the function of consolidating the monument's building so that it never becomes part of a past, perpetuating its existence in the memory of those to come (Riegl, 1903/2013, p. 42).

Just as in literature, which molds our intellect to experience situations through its characters, buildings also allow us those same relationships, although physical, to know and experience the world in

a corporeal way. This preservation of what has been bequeathed to us is extremely important for our development and the understanding of our body as a tool for design and creation.

The act of creating is thus coated with fundamental corporeality that connects it to feelings and emotions. We summon the figure of memory, fundamental to the creative process. First and foremost, we want to remember and recall so that our past can continually be re-evaluated and rediscovered. "Memory is always an art, even when it works involuntarily" (Bloom, 1994, p. 17), to quote Harold Bloom at the beginning of his *The Western Canon: The Books and School of the Ages* (1994). Beyond all chemical, intellectual, and biological processes, we are being formed by external processes interconnected with our senses. Seeing, touching, listening, and experiencing are also systems of construction of this memory. All these expression processes are based on a relational triptych, which is constituted by perception, memory, and imagination.

Aldo Rossi (1931-1997) summons up this triptych quite eloquently in his *A Scientific Autobiography* (1981): "Perhaps the observation of things has remained my most important formal education; for observation later becomes transformed into memory." He then goes on to say that the relationship between memory and imagination is not neutral. It is used to return to certain objects, to make them deform or evolve (1981, p. 23). All these elements take expression in the brain and mainly in the relationship between the body and the brain. Perception is primarily how the body recognizes the world; memory is how the body stores that information, and imagination is how it processes it. All these relationships are fundamental triggers when these processes operate in the act of creation. Perception is linked to the field of human senses and how the brain interprets these. They are difficult to explain in linguistic terms because they escape the common lexicon. In the first instance, because similar sensory stimuli represent different sensations for different people. The most effective way to describe what we apprehend through the senses is through feelings. When we listen to a piece of music, it is likely to conflate in us feelings of joy, sadness, melancholy, or sheer ecstasy; yet they are signifiers of a feeling and not the feeling itself. We communicate by approximation, not with linguistic reason. The same happens through drawing. When we express ourselves through it, we do so to communicate a feeling, but again by approximation, not as scientific proof of its representation. Memory, we believe, is what we owe to the understanding of the creative apparatus that begins in the experience of the body, as base matter, and ends in the imagination, as the potential of all human construction. When we produce something, it is through manipulating elements that are pre-existent to us, operating on them the free arbitration

of choice as a project decision. All creation, except divine or astrophysical accounts, is based on the manipulation of memory; there is no creation *ex nihilo* per se (Steiner, 2002, p. 159). The preservation of the built environment can then be said, with some confidence, to be of extreme importance, not only as historical preservation but as creative maintenance of the act of design.

The body is thus an axis susceptible of the act of creation through two essential vectors: the experience through the other, as an act of reading, and our own experience, through our relations in space. Therefore, the body takes on a primary value in the orchestration of all the senses. We relate through these to the world around us. Through our physical presence, we can constitute memory and remember through memory. This visibility of the body in a project is determinant as a movement of permanence of memory. In other words, it opens in the subject the ability to understand its relationship with its surroundings, creating through it interpretative fragments of the world or developing new relationships through existing memories. As we experience a space or event, new interpretations emerge as an answer to the first questions. These are living matters for the senses, which reinterpret them, giving rise to new memories, both in the body's physical experience in space and of the mind in reading.

The physical body is our first frontier of relationship with the world. It is through it that we are aware of the self and the other. It is also a kind of vehicle, of which we are sometimes not even aware, of our mind. It is also through it that we become visible, separated by the physical barrier that is the skin. This is essential for developing the body's relationship with its surrounding physical space and the objects that constitute it. From this relationship of proximity and scrutiny of the environment, the skin is the main vector of the experience (Fernandes, 2021, pp. 151–152). In the project experience, this primordial question is of paramount importance in recognizing Man and his visibility as an actor of and for the project, the object and the experience between these.

The body, through external stimuli, orchestrates a program of actions that serves as a trigger for emotions. Feelings are of a much more immanent character. They are rooted in chemical processes. That is, emotions as phenomena resulting from the action of the body and perceptible by the brain; feelings, on the other hand, are an inner experience, that of bodily action (Damásio, 1994/1997, p. 163). Feelings contribute to creating our internal self, a capacity to organize information received from the body. This external information is transmitted by the sensory systems, which contribute to our knowledge, aided by memory (Damásio, 2020, p. 55). The body is then operated as an inclusive subject of all external experiences, whether one's own or mediated by

others. Our own experiences are of direct nature —the experience of the body in space —, the mediated ones are those arising from reading. These experiences of external provenance, that is, the emotions, are essential materials of the creative processes. The applications of these materials to gather an architectural metaphor is indispensable to probe the feelings. In both processes, external or internal, the factor of memory as an articulator between the old and the new is determinant. It is possible to generate new concepts that rebound in themselves the possibility to (re)create between what is known and what has been discovered. In this movement, we manage to encapsulate the creative process as interdependent on the physical body, the body in creation, or the body as a tool of this process of creation.

In the same way that reading triggers synapses, which work with memory to create new concepts, the corporeal experience of the body in space generates the emotions necessary for the act of creating. The books serve as mediators of our process of discovery of experience through others, and the built heritage is the necessary construct for the formation of that process of discovery of one's own experience. From this confluence of feelings, which allow emotions to be uncovered, the body exists in the process of creation. And what is the role of memory? As Vincent Scully (1920-2017) describes in the afterword to Rossi's work mentioned above, it is the main theme of the creative process.

His forms are few precisely because they are not made up but remembered. They derive from his experience of things in life. (Rossi, 1981, p. 111)

To degrade or not preserve our intellectual and built heritage is to deny for ourselves or for future generations the pinnacle of human activity, the capacity of Man to create.

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Fostering the common: Transformative socio-cultural innovation through co-creativity among citizens

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ABSTRACT: The research core is related to a set of participatory art and design projects developed with different disenfranchised communities in Portugal and abroad. The objective of the practice in question is to engage citizens in co-creative situations focusing on their skills and ambitions, heritage, tradition, local habits, and plurality, which is implemented through different coalitions with other creative agents, public institutions, the charitable sector, among others as appropriate.

Some key concepts are presented in order to go deeper in the understanding of this hybrid practice systematization: (1) the importance of human and other than human systems interconnectedness for the rehabilitation of our planet as a whole; (2) the notion of a panarchy connecting local to global entities, from the molecular to the planetary, as a relevant logic to understand the transformations that occur at the individual level in the social body, along with the various socio-ecological systems; (3) and the idea of a mechanism to boost the level of creativity in a social group that works through a reinforcing feedback loop.

The essay concludes that participatory art and small-scale design projects involving citizens in transformative socio-cultural innovation can effectively affect larger systems through a more or less gradual transformation.

Keywords: Participation, Social innovation, Systems thinking

1 ACTIONS AND EMOTIONS FOR THE UNDERSTANDING OF HUMAN AND OTHER THAN HUMAN SYSTEMS

It is practically undeniable that human beings' interactions, among themselves and other living beings and the environment, are at the origin of the deterioration process that compromises the sustainable evolution of Planet Earth. The exponential action and influence that the human being exerts on other systems are marked by a patriarchal logic that has characterized Western culture. This is a set of "actions and emotions" (Escobar 2018, 13), clearly anthropocentric, led by competitive spirit, hierarchical organization, a sense of power and domination of different forms of capital, based on the idea of a social, cultural, economic and political system that controls and imposes itself on all other systems.

According to Escobar (2018), this evolutionary model that characterizes most contemporary societies is related to the increase of agro-pastoral societies, preventing a more sustainable development from

prevailing. A patriarchal culture instituted, with reason and economics as main values, to the detriment of emotion, one of the pillars of human existence.

However, despite this negative transformation, "actions and emotions" coexist that contradict this dominant logic – such as healthy parenting or emotional relationships in a more private context, as well as manifestations of participatory democracy in a more social sphere (Escobar 2018, 13). The interconnectedness between various human and non-human systems, and the coexistence of different cultures and worldviews, are crucial aspects for rehabilitating civilization and the planet as a whole.

A very significant understanding of humanity's relationship with other natures is the "human-soil" connection, which Puig de la Bellacasa (2019) explores to enhance "new ecological cultures of care for the non-human world." This is a paradigmatic example of the link between systems since the soil is a medium that connects different forms of life that depend on it for their subsistence. The concept of

soil is understood in this context as an entity for which it is fundamental to have affection, for it is an important substance to our existence as living, animate organisms.

Soil is a biodiverse system characterized by the constant creation of communities of complex organisms, such as bacteria, fungi, protozoa, or nematodes, of which we still know only a tiny part. The profusion of living things in the subterranean world is greater than above ground level, which clearly demonstrates the natural wealth that we generally despise, but which we should care for through an ecological involvement and a notion of “interspecies community justice” (Bellacasa 2019, 7).

Regarding the “human-soil” concept and the idea of soil as a unifying and basic element of humanity, Puig de la Bellacasa (2019) argues that this is also a way of caring for and rehabilitating human beings, namely through a “more than human ethico-political vision of our entangled interdependence.” The “actions and emotions” in caring for other systems on which we depend for subsistence are ways for humans to manage their sustainability as a species as well as to de-center the whole logic of Anthropocene evolution.

This paper explores the relationship between different systems on which the maintenance of human life quality depends. It is important to understand how the various complexities work to understand better how each one operates and develops in a balanced and consistent way. In turn, this holistic and sensitive vision to all forms of involvement with a given human or other-than-human activity informs a set of participatory art and design actions that have been developed with different communities in Portugal and the US, which will be addressed throughout the text.

2 LOCAL AND GLOBAL COMMUNITIES IN A PANARCHY OF SOCIO-ECOLOGICAL CONNECTIONS

In the broadest sense, nature involving physical phenomena, living beings, and the production resulting from human activity has a standard feature that determines the sustainability of the synergy among these elements. This joint action, called panarchy, is based on the notion of scale-linking, which connects the molecular and the planetary and the local and the global through adaptive cycles that occur simultaneously (Wahl 2016). Panarchy is a concept that dates back to the 16th century, having been introduced by the philosopher Frane Petric, also known by the name Franciscus Patricius, who was born in Dalmatia (now Croatia) and died in Rome. Petric’s treatise, entitled “Nova de universis philosophia” (1591 - 1st version and 1593 - 2nd version), presents a worldview where

the universe, nature, and knowledge are understood as a whole (Bellis 2009).

Later, in 1860, the scientist and intellectual Paul Emile de Puydt adapted the concept of panarchy, giving it a more specific meaning, particularly as an argument to defend his research in the social, political, and economic field. Many others have been interested in the concept of panarchy, including John Zube. In the late twentieth century (1986), he defines panarchy as a possibility of governance that envisions the coexistence of different, autonomous, non-territorial communities, both locally and globally (Bellis 2009).

Gian Piero de Bellis (2009) argues that panarchy is a method for solving social problems, a way of life that praises individual initiative, and a practice of social interaction. It is a way of being that is simultaneously personalist, voluntarist, and universalist. Personalist, because it aims to replace the logic of mass politics that has always fostered confrontation between opposing ideologies and social groups - such as social classes, political parties, and nation-states - and always sought to subjugate and manipulate the individual will. The personalist perspective of panarchy, on the contrary, values the respect for individual opinion and the person autonomy when the generated effect affects only him or her.

The voluntarist perspective is verified by the opposition to all forms of monopolization and the fierce defense of the individual will with respect to belonging or not to a certain community or social group. This does not mean that panarchy does not value the existence of groups and communities, but that these have, as its norm, personal determination. With the obvious exception of family, whose formation has a natural origin, no other set of people should be created with their forced integration (Bellis 2009).

The universalistic panarchy is related to its adaptive logic, which applies to all human beings and social situations. Guderson and Holling (2001) state that panarchy represents the holistic and structural character present in nature and the systematization and interaction between various spatial scales.

From the systems theory perspective, the panarchy approach is defined by “interlinked adaptive cycles occurring at multiple temporal and spatial scales simultaneously.” These dynamics demonstrate the reciprocal action between change and persistence in socio-ecological systems and linkages at different scales.

3 PARTICIPATORY ART AND DESIGN AS SMALL-SCALE DYNAMICS FOR INNOVATION

The concept of panarchy and the notion of simultaneity of interconnected adaptive cycles contribute to

a clearer perception of the scale connection logic that characterizes natural processes, particularly regarding the limitations of foresight and mastery, which humans experience as participants in various systems in which they are included. It is important to emphasize that the larger the system, the more difficult it is to control since the complexity increases exponentially, and countless unexpected factors can occur (Wahl 2016).

Another relevant aspect is that cycles with a smaller scale have a more accentuated dynamic and are more prone to innovation when compared to larger-scale cycles, which tend to accomplish the action that results from a good performance, namely regarding the maintenance of a context that favors survival. Thus, we may conclude that panarchy, in the broadest sense, is both conservative and innovative (Resilience Alliance n.d.).

Regarding the participatory art and design practice with citizens in vulnerable social, cultural, economic, and political situations, it is a small-scale dynamic that seeks to reverse the conservatism of the larger-scale system, which is characterized by slow and stabilizing development, namely of the state over the various social and cultural organizations, which in turn constitute smaller systems. Participatory art and design interventions seek to influence the socio-cultural structure and thereby promote innovation towards the sustainability of society.

Despite the spread of neoliberal logic in various spheres, namely in economics and politics, but also human thinking and behavior, transformative social innovation processes occur in the opposite direction. These modes of action stem from creative initiatives from citizens, which are characterized by being both individual and social, driving the creation or rehabilitation of links between people and between them and the places they live in, promoting the development of new communities. In this sense, through participatory art and design, social innovation is a small-scale system, causing a ripple effect expected to occur in other larger-scale systems, as is the case of social and cultural public policies that characterize democratic societies. Manzini (2019) defines social innovation as a process and, simultaneously, a consequence, focused on the “socio-technical system” transformation, seeking solutions to real problems, and fostering the common good.

Wahl (2016) states that smaller, and therefore faster, systems can affect larger systems, either through a chain reaction or through a “(r)evolutionary transformative” development. When developed in the local sphere, the latter possibility, and then expanded to regional and global levels, demonstrates the interplay between fast, small-scale actions, such as the projects we develop, and slow actions that seek to maintain stability down to the last redoubt. Thus, panarchy sustains that it is at the local level

that social innovation, particularly through increased creativity and artistic experimentation, is most feasible to occur. This may be the basis for a regenerative culture, which can promote sustainable development through a bottom-up approach, supported by collaboration among citizens who voluntarily participate in innovative initiatives, knowing in advance that they are also participating in the transformation of society at a broader scale level.

Manzini (2019) describes these communities as intentional, through which it is possible for people to communicate and maintain a close relationship regardless of the space and time that separates them. Moreover, there is a profusion of intentional communities to which it is possible to belong simultaneously, flexibly, and with different degrees of involvement. As a consequence of this transformation of a community’s way of being, citizens who join these social structures do not do so to acquire or add something to their identity, but as a platform to develop, through participatory processes, a perspective and a way of being. In this way, intentional communities are also spaces of opportunity that systematize various possibilities for innovation and experiment with solutions to identified problems. These contemporary communities are defined by the quality and consistency of the established interactions among their members and by the existing capacity to implement actions and test solutions for their benefit and the context in which they are inserted.

4 IMPROVING THE RESILIENCE OF DISENFRANCHISED COMMUNITIES THROUGH THE ENHANCEMENT OF THEIR SOCIO-CULTURAL CAPITAL

Human beings are a fundamental part of the natural world, depending on the sustainability of various ecosystems for their survival. Socio-cultural systems are a significant part of society’s balance, as are political and economic systems, among other instances of the panarchy surrounding us. In this context, it is important to create micro and macro strategies that minimize the negative impact of humans on the various systems. Humanity needs to develop the ability to plan for the future, through sustainable development, in the various hierarchies where nature manifests itself. For the connection between ordered systems to occur without entropy, it is relevant that their functioning is resilient and that this is a structuring quality. When enhanced, resilience allows a given system to be tolerant to disturbances and thus to be able to resist without deteriorating.

The concept of resilience is used to understand the interaction between socio-ecological systems better. It is essential to understand and manage the various transformation processes from this

perspective, especially when they occur unexpectedly. This interdisciplinary subject gravitates around the principle of sustainable development, according to which ecological and social systems constitute a cohesive whole characterized by various forms of interaction and feedback. Evolutionary logic is an intrinsic feature of socio-ecological systems, with possible change or disturbance representing an opportunity to improve, reorganize, or renew (Biggs et al., 2015).

In certain socio-cultural contexts, vulnerable citizens remain in situations marked by an unsustainable trajectory, which in turn affects other areas of society, at the local and regional level, and so on. The social and economic intervention of states is important to solve some pressing problems. However, it is not enough because vulnerabilities remain, but usually latent fragilities are accentuated in the short and medium term. The resilience approach argues that incremental transformation, as is the case with most policy interventions in this area, is not a sufficiently effective solution to systemic problems, as incremental adaptation occurs that does not reduce the negative effect as expected. For a more resilient attitude towards this kind of adversity, it is important to deepen the holistic understanding of complex adaptive systems so that substantive transformations occur at the individual level, over the social body, and that these have repercussions in diverse socio-ecological systems.

Donella Meadows (2009) argues that a system is not just a collection of processes, emphasizing their interconnection and organization to achieve a predetermined purpose. The system's structure is what defines its behavior and determines the consequent manifestation through various events over time.

There are other possibilities to enhance community capital, such as the reduction of natural capital consumption (e.g., preserving natural resources, implementing ecological consumption and production habits), the improvement of material capital (improving community services - education, health, public transportation, etc.), the solidification of economic capital (more innovative, efficient, and equitable commerce and industry), and the increase of human capital (social cohesion through health, education, family, work, etc.). We highlight the proliferation of social capital - promoting the existence of government institutions and public and private participatory entities that involve citizens, as well as the strengthening of cultural capital - valuing the various artistic practices, heritage, tradition, local habits, and characteristics, and plurality (Roseland 2005).

In disadvantaged places where participatory art and design interventions have promoted the inclusion of the most vulnerable population clusters, the capital in question is socio-cultural in nature. This is a dynamic resource that citizens use for their own

benefit after contact with existing social and cultural structures. In a broader sense, this more abstract form of capital is characterized by elements of the social system that interfere with interactions between human beings, influencing the capacity to produce and use resources (Baker 1990, Schiff 1992).

5 FEEDBACK LOOPS FOR THE EMANCIPATION OF VULNERABLE COMMUNITIES

Regarding the rhythm and dynamics of a system, Meadows (2009) states that capital changes determine these factors. In the case of the disadvantaged areas where participatory art and design projects were developed, we consider that their social and economic development can benefit through greater cultural development. A community or social group that develops various skills and stimulates creativity benefits directly from the knowledge acquired. The cultural capital acquired influences other forms of capital in the short or medium term.

The oscillations of a system's capital or the ability to keep it constant, regardless of inflows and outflows, are associated with its own mechanism that works through a feedback loop, which allows the capital of a given system to remain level. This process starts by monitoring existing capital and consequent action to correct capital inflows and outflows (Meadows 2009).

The participatory art and design practice that we have been experimenting with is based on collaboration between artists, designers, institutions, and citizens to develop participatory projects that are somehow innovative in socio-cultural terms. In this sense, one of the central elements is the exploration of an empathic approach with the coalition partners, based on the ability to establish dialogue, listen and exchange ideas for a better understanding of differences and existing diversity, recognizing them as strengths that enhance the overall community quality of life. In parallel, another systematic method is creating a dialogical and co-creative involvement aimed at bringing together the participants, their respective cultures, and different generations and income levels to promote community relations and the development of synergies for common goals.

It is a system that aims to develop social and cultural capital, in the first place, followed by an expected improvement of other forms of capital, such as economic and human capital. In Meadows' (2009) view, this is a process of amplification and reinforcement, which is also exponential and reproductive. Social engagement projects with the groups in question promote the growth of creativity within the individual and the community, contributing to the regulation of their cultural capital.

Since 2007, we have been developing several participatory art and design projects through different means of representation, relying on the collaboration of fishing, rural and urban communities in Portugal (Figure 1). In 2019, we developed a project with Hispanic and Central African immigrant communities in the city of Cedar Rapids (USA) (Figure 2), keeping with the same kind of collaborative work previously developed with African immigrants living in disenfranchised neighborhoods in the outskirts of Lisbon (Figure 3).



Figure 1. *Creative Practices Around the Production of Cork*, 2014-2015, Évora, Portugal.



Figure 2. *Shifting Ground*, 2019, Cedar Rapids, USA.

A common characteristic to all the developed projects is the fact that they start with workshops about a certain artistic practice, as well as a cultural theme related to the participants' knowledge, or something they are interested in exploring, evolving later to the creation of meaningful reproductions, namely photographs and videos of the social involvement initiatives. This image of communities marked by vulnerable social, cultural, economic, and political situations constitutes a photographic testimony through which the viewer metaphorically participates in the project. Observing these societal reproductions requires a critical perspective of the socio-cultural context in question, shaping a political attitude towards public life (Azoulay 2015).

Within systems theory, this logic of society's sustainable development called reinforcing feedback loop seeks to increase the flow of capital into the system beyond the existing one, enabling exponential growth (Meadows 2009). This is the intended effect of the series of participatory art and design actions we have developed in collaboration with artists, designers, professionals from social institutions, and citizens going through a vulnerable period due to the unfavorable conditions they are subject to in society. This is a mechanism that stimulates the resilience of a given social group regarding creativity capital. Taking into account that the creativity existing in the individual or the community may be little active, the participation in initiatives for the benefit of the context itself, and the respective reproduction through a type of societal image works as a reinforcing feedback loop, whose objective is to rehabilitate the system as a whole, namely the set of cultural, social, environmental and economic phenomena that are subject to disturbances.



Figure 3. *More South*, 2017-2018, Sintra, Portugal.

A relevant aspect of a system, such as those we seek to implement, is its potential to reproduce and self-organize, namely by demonstrating the system's capacity to assimilate information and transform and complexify its processes with an evolutionary perspective. In the scope of the participatory projects in question, these factors are present in the eventual emancipation that the citizens involved may demonstrate in their journey and the promotion of creativity of the socio-cultural fabric in a broader sense.

6 CONCLUSION

This paper seeks to contextualize the participatory art and design practice that we have been developing by implementing co-creative projects for the social innovation of communities with different characteristics but with the common factor of having certain social, cultural, and economic vulnerabilities. It is a systematic social problem that governmental bodies try to solve, together with social solidarity institutions, but without

the desired effect. A considerable part of the issues these institutions propose to solve find more or less effective solutions, but no real transformation towards a more sustainable and holistic evolution certainly occurs.

At the root of the issue is the patriarchal logic that characterizes Western culture and prevents the development of a social, cultural, economic, and political system that respects difference without seeking to control and impose itself on other systems. In this perspective, we bring to the reflection some concepts that contribute to a broader view of the problem, such as the notion of the interconnection of various human and non-human systems and the idea of panarchy, as a method to overcome social adversities and a way of life that praises both individual initiative and social interaction. The practice of participatory art and design resulting from these issues is based on developing “actions and emotions” that aim to counteract this dominant logic, contributing to the rooting of a more democratic and participatory society.

It is an interdisciplinary or transdisciplinary project approach in the field of art and design, whose smaller scale is relevant to reverse the conservative attitude of the larger-scale system. This type of smaller system is more agile and effective in affecting the larger system through a more or less gradual transformation. The practice is a transformative social innovation process with repercussions in social and cultural public policies that characterize democratic societies. We think it is fundamental to implement modes of action that result from creative initiatives in collaboration with citizens, which boost the creation or rehabilitation of ties between people and their places.

These socio-artistic activities aim to achieve concrete results in the community environment and promote a more resilient attitude so that substantial transformations occur at the individual level in the social body. These have repercussions in various socio-ecological systems. In particular, the main objective is to stimulate the creativity of vulnerable citizens and disenfranchised communities so that all directly benefit from the knowledge acquired and enhance their cultural capital.

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Migrant living archive: Practice to improve cultural integration in participatory art and design projects

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ABSTRACT: The paper focuses on the creative process and its image, namely of immigrant citizens and descendants, in the context of community-based art and design projects. This dynamic archive, including photography and video, is part of an ongoing practice involving newly arrived and second-generation immigrants to Lisbon (Portugal) and Cedar Rapids (US). Based on the participant's cultural heritage, the following practice aims to enhance the creative process as a vehicle for dialogue, build artistic objects, and develop social and cultural sustainability. The research mainly explores the methodology and methods of co-creative work developed with the participants, particularly on the expanded notion of archive and heterotopia. This approach is a way to interact with the citizens in question and give visibility to their different cultures, specifically through a living archive. In this context, these aspects are used as tools to promote a reflection about the cultural and social impact of immigrants and descendants and their interrelation with the new places.

Keywords: Community-based art and design, Co-creativity, Immigration, Archive

1 RELATIONAL, COLLABORATIVE AND EMOTIONAL DIMENSIONS IN COMMUNITY-BASED ART AND DESIGN PROJECTS

Through the migrant living archive practice developed in the context of the three community-based art and design projects presented here, we aim to empower and give visibility to undervalued immigrant groups in their communities, promoting social and cultural sustainability.

The relational dimension is imbued with emotions and marked by a collaborative approach among people. The environment is reflected in a greater understanding of the world and an exponential increase in the quality of life among humans and between humans and non-humans. Art should be no exception, particularly the artistic practice developed with immigrants and refugees in the presented projects. In order to highlight the collaborative, relational, and emotional, and rational action between all participants during the living archive practice, we begin this reflection with the appropriation of a concept as a metaphor that governs the behavior of indigenous culture in Colombia.

The philosophy of life of the indigenous community of fishermen, hunters, and farmers located on

the banks of the Rio Grande de la Magdalena, which flows into the Atlantic Ocean, is based on the concept of *sentipensamiento* (feel-think), which is characterized by thinking with reason and emotion combined. This concept was popularized by Colombian sociologist Orlando Fals Borda in 1986, during his stay in that community (Borda 2008).

The amphibian culture of this community is characterized by the mastery and combination of techniques for the use of natural resources - water and land, and the development of fishing, agriculture, and hunting. Being in close relationship with the surrounding environment, the amphibian culture of the Rio Grande de La Magdalena recreates the rhythms of climate, sowing, and the unpredictable movement of fish, among others (Borda 2008).

Another symbolic concept of the amphibian culture is that of the turtle-man, embodied by his fishermen. For them, being a turtle-man represents not only being sentient but also being waterproof, one who overcomes life's adversities because he knows how to wait for his moment to act (Borda 2008). The turtle's rhythm is very productive. When there is no water during the summer, it buries itself in the sand and hibernates for a few months. When it feels the humidity again, this animal wakes up and

goes back to its life, with the same energy as before, and reproduces (Borda 2008). In this sense, considering their existence and the environment as a single body, the amphibian culture of the Rio Grande de la Magdalena perceives the territory holistically, with mind and affections. In fact, for many indigenous or non-Western cultures, there is no dichotomy between nature and culture as we know it, nor between individual and community. People exist in constant relationships with each other and between them and the rest of the environment (Escobar 2014). Most often, the relational character implies territorial and communal visions characteristic of many indigenous cultures. This conscious, relational approach understands “territories as vital spaces-times of interrelation with the natural world.” However, this conviction can expand to any human group if one considers that reality is relational and that humans do not exist separate from their other (non-human) surroundings/environment (Escobar 2014, 59). Orlando Fals Borda and, later, the Colombian anthropologist Arturo Escobar, appropriate local, empirical knowledge to expand it and produce knowledge globally. The concept of *sentipensar* is a teaching given by the Rio Grande de la Magdalena community to bring awareness of the importance of acquiring and producing knowledge from within, from the “territories, cultures and knowledge of their peoples.” This stance runs counter to the decontextualized knowledge that characterizes notions of “development, growth, and even economics” (Borda 2008, Escobar 2014, 16) conceived in the context of hegemonic globalization.

Our notion of what is real and what is possible assumes that we act as individuals separate from the world. The scientific principles learned during our schooling lead us to conceive the world from the point of view of neutral observers focused only on being objective. This view is because modern Western culture is built on a logic of dualisms, in that it separates subjects and objects, reason and emotion, nature and humanity, facts and values, us and them, among other dualisms (Escobar 2020).

Sentipensar (feel-think), rather, is a way of reflecting, from the personal to the collective, on new ideas about what is real and what is possible (Escobar 2020), namely through a non-hierarchical understanding of knowledge, respecting the plurality and diversity of forms of knowledge, empirical, scientific, Western, non-Western as well as love and emotion. This way of conceiving life reveals the multiplicity of social experience, recognizing the differences and diversity of ways of understanding the world, promoting ecological balance among people and between people and the environment. In the amphibian culture, *sentipensar* creates a unique reality in which human beings are oriented toward a collaborative way of existing, [both among

themselves] and with all non-human beings because it is more sustainable in its relationship to life on Earth (Escobar 2020).

As we can see, the *sentipensar* notion of the Rio Grande de La Magdalena community presupposes knowledge through two inseparable assumptions - emotion and reason combined, as well as the relational approach.

For neuroscientist António Damásio, there is an intrinsic, complementary relationship between mind and emotion and the way people organize themselves socially. The relationship that exists between what goes on in the brain and the social sphere is because our life and our social structure mirror, in a significant way, our basic affective organization. Every creation in the realm of politics, justice, economics, humanities, and the arts has an enormous influence on the life of the affections. Applying logic and reason is not possible if feeling is not taken into consideration in solving a given problem (Damásio 2017). In this sense, we make decisions with our emotions and not exclusively with our reason. The post-cartesian notion of the interconnectedness of all life is central to ecology, insofar as the relational and interdependent being replaces the autonomous and isolated being (Escobar 2018, Gablik 1992). In this context, art can also develop in harmony with the environment through an empathetic approach and interaction between all the actors involved in a given artistic project. The web of relationships based on listening and dialogue promotes reciprocal relationship experiences, which expands from the individual to the community’s collective and leads to the constitution of identities based on the communicative process of our intersubjectivity. Collaboration approaches take intersubjectivity as a means of expression that replaces the subjectivity of the individual experience by the diverse experiences of all the participants involved (Gablik 1992). Founded on relational concepts, communication, political goals and not [exclusively] with a range of artistic means, materials, or spaces, collaboration art develops according to an aesthetic linked to the social dimension. (Lacy 1995, 30). The need for consensus is an underlying issue in participatory art projects since this artistic practice only makes sense if it is inclusive, integrating the diversity of human existence (Lacy 1995, 32). In addition, art critic Lucy Lippard (1995, 128) shares this opinion, stating that “to find the whole we must know and respect all the parts.”

Referring to the importance of practices that make use of collaboration too, through an ethical approach and principles of reciprocity, give voice to difference and, in this sense, contest the autonomous position of the artist, Kester (2001, 4) explains that collaboration “can potentially counter the image of the heroic artist struggling to assert his mastery over a recalcitrant nature, and incite instead a form of artistic practice of an open nature, based on the paradigm of listening and intersubjective vulnerability.” This intersubjective vulnerability is related to the

idea that an artistic project is constructed, not by an artist autonomously, but rather by the interdependent relationship of all the participating elements. We can learn and suppress individual interest through the empathic approach by recognizing a supposed universal view or through an imposed logical reason to redefine being - our perception of being is embedded in our connection with others (Kester 2004). We consider that the empathic procedure promotes communication and understanding between people and is, therefore, a proactive strategy.

Today, the diversity of collaborative practices grounded in local contexts constitutes regional and local struggles with common values such as respect for communities, indigenous cultures, and places. They also include exploiting the market system, the refusal of arbitrary imposition of state power, and a commitment to participatory democracy. These assumptions are opposed to the neoliberal tendencies of hegemonic globalization guided by an exclusively economic vision, which favors the market, disdains local cultures and diverse forms of knowledge, and imposes stereotyped models of an economic or technical nature that have not been studied to serve life in different places.

2 MIGRANT LIVING ARCHIVE PRACTICE

In his work, *The Archaeology of Knowledge* (1969), a methodological and historiographical treatise on discourse analysis, philosopher Michel Foucault compares the archive study to the practice of learning about the past through its material remains left behind by a particular historical period and culture. Using the idea of archaeology as a method, Foucault considers that in reclaiming and rebuilding the archive, the archaeologist of knowledge reveals how the archive influences our relationship to the past and the construction of historical meaning (Merewerther 2006). Described as the conditions of the possibility of its construction, the archive, thus, changes it from a static collection of texts to a set of relations and institutions that enable statements to continue to exist (i.e., to become part of an archive). Thus, for Foucault, the archive is not a set of things or even a set of statements, but rather a set of relations: it is 'the general system of the formation and transformation of statements.' For Foucault, the archive regulates what is said or unsaid, recorded or unrecorded (Foucault 146).

The idea of archaeology is related to how one perceives the basic structure that underlies the orientation of thought and value systems in any society concerning its people and others (Merewerther 2006). Archives contain the potential of new experiences, experiments, and principles of alternative pasts, traditions, and identities (Eliassen 2010).

Inspired by Foucault's (1972, 130) archive dimension as a set of "formation and transformation"

relations, the archive must be understood as a dynamic body consisting of a variety of perceptions, materials, and actions that inform one another when promoting new meaning and encouraging interrelationships in the production of knowledge. According to Miessen (2016, 11), this kind of archive is a "productive tool, generating a set of spatial and content structures, which produce new works on the basis of the archived material." The idea of the archive within our artistic practice is concerned with the act of accumulating experiences as a form of knowledge, resulting from the interaction between all the participants in the projects.

The three art projects we developed had the objective of using creativity to build alternatives to support vulnerable communities.

The first two art and design projects, Mais Sul and Catapulta were initiatives developed in partnership with the Aga Khan Foundation Portugal and occurred between 2017 and 2019 in two cities of the Great Lisbon Area. The Mais Sul was developed in Navegadores and Moinho das Rolas neighborhoods, which belong to the Oeiras Municipality. Catapulta is a project that was created in the neighborhood of Pendão in Sintra municipality. The last one to be developed was the Shifting Ground project, which took place in Cedar Rapids (USA). It was also started from a collaborative platform, namely with the North American artist Jane Ellen Gilmor and the Iowa Ceramic Center and Glass Studio, with support from the City of Cedar Rapids, Iowa Arts Council, St. Paul's United Methodist African Nationals Congregation, and the Immaculate Conception Church's Hispanic Ministries.

The common characteristic of these projects is the fact that the participants were mostly immigrants and their descendants. In the case of the projects developed in Portugal, citizens from Portuguese-speaking countries such as Cape Verde, Angola, São Tomé and Príncipe, Guinea Bissau, as well as immigrants from Senegal and residents belonging to the Roma community, in the case of the projects that occurred in Cedar Rapids (USA). The participants were from two communities: immigrants and descendants from Mexico and Honduras and refugees and immigrants from Burundi and the Democratic Republic of Congo. The main objective of the

More South and Catapult projects focused on using art and design tools to reproduce immigrant crafts, the participants' skills improvement, and the eventual development of business ideas. Thus, the concepts, ideas, and guidance initially given by the facilitators' team in the co-design process were followed by a free exploration of participants through a collaborative process between them and ourselves (Figure 1). In the More South project, shoulder bags with stamped motifs were made. In the Catapult project, printed fabrics and accessories prepared with cyanotype images were tested (Figure 2).

In the Shifting Ground project, we started with a playful interaction related to each participant's



Figure 1. *More South*, 2017–18, workshop, collaboration with the Aga Khan Foundation and locals living in Sintra, Portugal.



Figure 3. *Shifting Ground*, 2019, workshop, collaboration with Jane Gilmor (artist), the Iowa Ceramic Center, and Central African immigrants living in Cedar Rapids, US.



Figure 2. *Catapult*, 2018–19, collaboration with the Aga Khan Foundation, Eduina Vaz, Ana Fernandes (both local artists), and other locals living in Sintra, Portugal.



Figure 4. *Shifting Ground*, 2019, exhibition, Cedar Rapids, Iowa, US.

personal experience to stimulate the creative process, followed by two ceramic sculpture workshops. In the beginning, we asked the participants to think about three things: a life story, a significant object, and what they consider their main talent. In this game, each participant would have to share a memory, a talent, and an object that were supposed to be related to each other and represent each participant's personal experience (Figure 3). Subsequently, the participants began writing about their own concepts, which they pitched to each other. After this process, they started working on their own sculptures collaboratively, and each participant shared their opinions about the others' ideas and forms. The workshops culminated in an exhibit celebration organized at the Cherry Building in Cedar Rapids, a space dedicated to the arts, where the Iowa Ceramic Center and Glass Studio that supported the project is based. Project participants came along with friends and family (Figure 4).

The notion of expanded archive is also considered within our practice specifically because it incorporates the praxis dimension that precedes the archive as factual material. Based on a set of actions within

the workshops with immigrants and descendants, all participants create this praxis.

Through its performative structure and formal approach, the migrant living archive in question was built through an empathetic approach based on dialogue, on the recounted of life stories to engage participants and stimulate the creative process, and on the creation of objects in a participatory way. Therefore, this practice was a means to develop social and cultural sustainability. The set of videos representing the entire process and, particularly, the developed artistic objects within the workshops document each culture in a very unique way. Thus, the archive material is both a process and artwork because it is based on an archiving practice. According to Giroud (2016, 311), "the archive is no longer the source, the rough copy of the finished work, the archive has become the work as labor...it is the permanent creation...".

3 MIGRANT LIVING ARCHIVES AS A CONTEXT OF HETEROPTOPIA

Another dimension incorporated in the expanded archive is that of heterotopia. It is an original concept

created by Michel Foucault, in 1967, in his text "Other Spaces," through which the author intends to explain the confluence of the various existing spaces in a society marked by the age of simultaneity - of juxtaposition, of the near and the far, of the side-by-side and the dispersed -, and by a time experienced in the network (Foucault 1984, 1).

The history of space in Western culture shows us that during the Middle Ages, there was a hierarchy of places: First, places immediately associated with the real life of man - the sacred, profane, protected, exposed, urban, and rural; in the context of cosmological theories, there were supercelestial places, which were opposed to the celestial and these in turn to the terrestrial. Finally, there were places where certain things were placed because they had been displaced, in turn, in a violent way, and, on the contrary, places where things found their natural basis and stability. These intersections and dualisms of places constituted a hierarchy that, in a sense, can be understood as medieval space: the space in which each thing is placed in its specific place, the space of disposition (Foucault 1984, 1). The medieval, fixed space of disposition was dissolved by Galileo, above all, by creating the concept of infinity and its implication in consideration of infinite open space. The place of a thing was, after all, but one point of its motion, just as the stability of that thing was, after all, but the infinite deceleration of its motion (Foucault 1984, 1). Galileo, the entire 17th century saw the replacement of location by extension, later replaced by site. Site is defined by proximity relations between certain points and elements, whose formal description may have the configuration of series, trees, or grids. (references missing) Another significant aspect of the site, in the context of contemporary societies, has to do with the capacity of storing data or the results of a calculation in a memory; the circulation of distinct elements with a random output (simple examples: car traffic or the sounds of a telephone line); the identification of marked and coded elements that are part of a whole, built randomly or according to classifications, whether simple or multiple (Foucault 1984, 2). In fact, the problem of place or site arises with demography. For Foucault, in addition to the importance of the "human site or living place" in ascertaining the existence of space in the world for all human beings, it is fundamental in detecting relations of neighborhood or proximity, of types of storage, circulation, marking, and classification of human elements that must be adapted in certain situations to achieve certain ends. The age of simultaneity transforms sites into a form of site relation, that is, into a network.

Taking up the concept and, in particular, the root of the word heterotopia, the prefix hetero - is from Ancient Greek ἕτερος (héteros, "other, another, different") and is combined with the Greek morpheme

τόπος ("place") and means "other place" (Wikipedia contributors 2020).

Foucault uses the term "heterotopia" to describe spaces with multiple layers of meaning or relationships to other places that immediately meet the eye.

The participatory art and design practices with immigrants can be understood as a context of heterotopia insofar as it constitutes a peripheral body to everyday spaces. These "other spaces" and "other places" that are nevertheless connected with all others are spaces of alterity relations regarding the existing reality. The tension that characterizes these "other spaces" is associated with how they counteract or neutralize the other spaces (Foucault 1984, 3-4).

During the workshops, the participatory action developed with immigrants is a confluence space of several, sometimes antagonistic spaces. In it converge the vulnerability of immigrants to their condition in the new places, the wills, their interest in participating in the project, the sharing of experiences and knowledge, the cultural heritage, the willingness to empower immigrants, the production of diverse artistic objects, the archiving practice through video and photographs, and so on. However, these are also spaces of invention, imagination, and transformation (Foucault 1984, 3, 9), particularly through the reactions and ideas generated by the participants' perception giving rise to impulses for action. As a context of heterotopia, which corresponds to the intersection of the spaces situated within society, participatory art and design practices can contribute and promote the recognition of social space, including the human relationships that contaminate the common spaces and the transmission of community knowledge among all the people involved.

This dynamic space of workshops with immigrants is where the archival praxis is carried out. As a full exercise of citizenship, it affects all participants and the possibility of new experiences in a space of plurality. The praxis also consisted of collecting and selecting information, life stories, interaction approaches, creative processes, pieces produced. This factual material was previously observed, chosen, and interpreted by us and became an archive. The set of videos and photographs were part of the organized exhibitions/encounters and the pieces produced in the workshops. These events brought together participants and their families and some friends, local artists, and representatives of public authorities and academics. In the third project, we highlight the performance of a gospel group. In this sense, the installation of objects worked as the support, structured by us, that made possible the transmission and communication between the "voice" of immigrants in specific contexts and those who "listen" to it.

The migrant living archive practice emphasizes the interdependent relationship between people, as it considers the multiple identities of all participants. In addition, it reinforces the political dimension as

a tool for the empowerment of displaced communities and their social and cultural sustainability.

The videos and photographs constitute an archive and a heterotopia simultaneously. In the first case, as they contain the potential of new experiences and principles of alternative pasts, traditions, and identities (Eliassen 2010), reflecting possibilities of new futures. In the second case, as a heterotopia capable of juxtaposing in a single real place several spaces, several sites that are in themselves incompatible (Foucault 1984, 6). Inspired by the concept of heterotopia that Foucault applies to cinema, we can intersect in a single real space the exterior or interior spaces, of various configurations, where people can perceive the photographs and videos, and the two-dimensional space where a three-dimensional space is projected.

The migrant living archive dissemination, as a space of otherness, amplifies the network of relationships to other antagonistic spaces through the decentralization of knowledge production, thus empowering these communities.

4 CONCLUSION

The art and design projects presented here are based on an empathetic approach enabling the development of co-creation work. The relational paradigm that presides over the migrant living archive practice promotes a collective reflection, with our connected emotions and reasons, about new futures, by sharing a community's living experiences, respecting differences, and the plurality of ways of knowing.

The collaborative dimension of the migrant living archive, like the collaborative way of existence of some indigenous communities, promotes a more ecological artistic practice insofar as it is governed by the interdependent relationship of all the participating elements, that is, by principles of ethics and reciprocity. In this sense, we can affirm that this way of being in the world provides the production of knowledge from the crossing of knowledge of all involved in a community, on a local scale, to expand to a global scale and foster the production of new knowledge.

The participatory migrant living archive process is characterized by the notion of migrant living archive, which is understood as a dynamic body that links perceptions, materials, and actions producing new meanings and stimulating interrelationships in knowledge production.

The practice in question is also seen as a context of heterotopia since it is a space of alterity relations regarding the existing reality. The migrant living archive activates and articulates the relationships between creativity, identity, knowledge, and empowerment

concerning the immigrants who participated in the art and design projects. Therefore, a migrant living archive can be a useful tool for social transformation, positively impacting immigrant lives and society.

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Creativity and sustainability

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ABSTRACT: Creativity and its instruments are, in the design area, fundamental elements for social and identity expression and represent an inexhaustible tool for product and service innovation. Its observation, analysis, and reinterpretation allow an increase in the designer's ability to solve issues related to the product and a greater connection with the end-user. From literature review where a framework of issues related to sustainability, creativity, and techniques for prolonging the life of the fashion product is proposed, it was developed an exercise of exploratory basis with a group of participants where it was possible to promote and analyze a sustainable development in the production of new projectual articulations, in fashion design, having as a starting point methodologies such as upcycling and mending of garments.

As a complement to the researched theory, the realization of a practical exercise on upcycling and mending with the civil community confirmed the importance of the connection between sustainable practices and creativity, taking the information as prevention to consumerism and consequently obsolescence.

Based on the analysis and practical study carried out, it is intended to promote dialogue between civil society, academia, and industry to describe some sustainable methodologies for the creation process in sustainable fashion design.

Keywords: Fashion design, Sustainability, Creativity, Mending, Upcycling

1 INTRODUCTION

Fashion is a phenomenon that concerns everyone, and dressing is one of the most important acts in the daily lives of most individuals, even when done almost automatically. In today's society, clothing is seen as a multi-layered object that brings together different objective and subjective factors. Lipovetsky (2010) refers that there is an increasing need for the individual to communicate with society and to assert his position before it; thus, on the one hand, fashion and clothing are increasingly important in asserting the individual; on the other hand, fashion becomes more and more disposable, sometimes even before its use. There are multiple reasons for clothing discarding, and we can associate them to the end of its useful life with the need to change its look or with the damage of the piece, among other factors. In everyday use, when the garment is damaged, most users do not consider fixing it due to the ease of purchasing new low-value pieces and because they have not created an emotional bond with their garments.

According to the Pulse of Fashion report in 2030, "global apparel consumption could increase 63% from the current 62 million tons to 102 million tons – equivalent to over 500 billion additional T-shirts" because there is not enough time and quality in the connection between product and wearer (House of Commons Environmental Audit, 2019: p.8).

Economic strategies such as planned obsolescence strongly contribute to consumer practices aimed at the rapid disposal and impulsive purchase of goods. This reduction in products' lifespan and quality creates fertile ground for aggressive mass consumption where the exchange for new products is privileged. "The programmed obsolescence introduced by the fashion industry has become the new norm, and the concept of ephemerality is accepted naturally. Nowadays, everything is seen as disposable, so the individual lacks connectivity with the things in his life" (Santos, Montagna, and Neto, 2020: p. 9).

The elements that can enable a user's emotional relationship with clothing have already been the subject of study for many years. Their changes and alterations over time result from a constant attempt

to adapt to an increasingly dynamic society, and the relationship with clothing has led to the rise of fast consumption and the proliferation of Fast Fashion.

The fashion industry's current business model is unsustainable, especially with growing populations and the increasing consumption levels around the world. Overconsumption and climate change are causing widespread environmental damage. (House of Commons Environmental Audit, 2019, p. 56).

Considering the recent demonstrations of the impossibility of continuing to pollute the planet as it happened in the last decades, the need to change this paradigm in favor of the sustainability of natural, economic, and social resources in the production and transformation of all products and consumer goods proves to be imperious and urgent. In this sense, creative processes and problem-solving should be an educational goal and of the design, project to improve the adaptability of the product to the user and consequently contribute to the social good (Mendes, 2016, p. 9). The topic of sustainability is addressed by the media in a generalist way, limiting the dissemination of knowledge about this topic and the consequences of its impact, relegating the main causes of the problem to the background, making social awareness slow, distant, and difficult to achieve.

Planning strategies for the urgent awareness of all stakeholders and the implementation of more sustainable methodologies for clothing design is necessary and fundamental. All project areas must be involved: theory and practice for developing ideas and actions, learning processes and skills reinforcement for future designers, and the evolution of components and design requirements for a new sustainable relationship with the products, ideas, and processes.

Techniques such as mending and upcycling are mobilization engines for more sustainable playful practices, which also provide creative and emotional learning moments that can mobilize civil society, designers, and students to embrace the challenges of sustainable fashion and a healthier lifestyle, which can be a proactive part of their behaviors and not only depend on the attitude of the industry and fashion brands.

This chapter aims to foster this dialogue between the clothing and the wearer to create new attitudes towards the theme of sustainable fashion.

2 CREATIVITY

In the creative process, there is on the part of creators and designers a deep need and a great sense of satisfaction for the attempt to project and do tasks, which allow a connection between the physical and sensorial dimensions of the object of study (Santos, 2004). This is an enriching experience on a personal and professional level and to create objects with a relevant thickness at a social and identity level.

Creativity refers to human beings' cognitive and behavioral capacity, being defined as the ability to think and whose function is to interpret and observe the reality. Creativity is thus a set of internal dispositions (primary aptitudes of the mind, in a divergent way of thinking) that allows the subject, when faced with a stimulus, to reach associations different from the usual (Mendes, 2016: p.9). According to religious beliefs, moral values, experiences, and traditions, the meanings associated with a product differ from culture to culture. We can interpret it as a large travel bag, where throughout our experience, we organize information from various sources and compile the most diverse associations.

Even though we probably cannot talk about a real structured creative process, outside the area of the design project, it is necessary to develop in the users some curiosity and ability to adapt and individualize their own garments, either to personalize the product and also to be able to expand its lifetime. In this sense, lack of time and the need to obtain quick results lead most users not to develop basic maintenance tasks for garments, even though they are essential and important for their correct use and conservation. The modern way of living leaves no room to take care of the elements that most represent us socially, pushing away the assumption of a posture that allows creative thinking and constructing conscious learning experiences and resources. Creating a greater empathy with the clothing we wear, and increasing its lifespan, allows us to establish an effective connection with the final product.

Many people do not have the skills or confidence to create, repair or alter garments, but wish to earn them (House of Commons Environmental Audit, 2019). The future of fashion will depend heavily on a change in common thinking of consumers and future designers as students and the industry as suppliers of raw materials, products, and services. Strengthening awareness and inputs about this topic will soon make this a trend, no longer a distant idea for consumers.

The vision on the subject cannot have a single perspective but establishes special attention with the creation of bridges of knowledge between the past and the present, for the future to give tools to innovation and encourage voluntary experimentation exercises (Morais, 2013). Creating creative stimuli is fundamental to captivate interest in these practices and develop new ways to manage knowledge daily and awaken emotions.

As creativity is an active part of objects with high identity characteristics in each social and cultural context, its deep observation and study increase its observation and interpretation capacity, aiming to create renewed solutions to solve problems and define new objectives and uses (Tomaili, 2019).

3 SUSTAINABILITY

Sustainability is a concept that has been debated for decades to define limits to the impacts caused by the world's population in a way that does not harm the ability of future generations to obtain their goods in a balanced way (Singh et al., 2019). Thirty-four years after the theme was introduced into society by the World Commission on Environment and Development (WCED) in 1987 in Stockholm, we constantly struggle to identify, solve, and build solutions to bring social, environmental, and economic balance. In a constant struggle for a sustainable planet, the debates about this issue are still far from exhausted. These issues, which are debated and are part of the training of fashion professionals, of the training of new designers and students in general, force different visions about the available resources and raw materials, calling for new behaviors from professionals and consumers. The conscious designer has the function of disseminating responsibility and common sense in his/her designs' products, reducing the harmful impacts on the environment (Morais, 2013).

Nowadays, sustainability is a topic deliberately intrinsic to society and the project area, including the fashion design disciplines, whose practice allows implementing and testing new working methods to reduce waste and increase the durability of materials or designed pieces, among other purposes (McDonough, 2002).

The recognition of the dimension of the problem is something urgent, and this issue is a problem for all of us, citizens and the designers who produce the products. The application of measures at all levels, from society, government, and companies, requires permanent environmental education to integrate this knowledge into social life and thus promote a profound change (Menezes, Reis, and Resende, 2019).

The social factor of sustainability is based on equalizing values among all humans and meeting basic needs such as education, health, leisure, and other living conditions, involving the continuity of reciprocal responses by the population, social and cultural status. Noteworthy here is the value of the social impact that the proposed measures could have on communities. Singh et al. (2019) refer that generating knowledge sharing and interaction between communities could enable the regeneration of natural ecosystems and their integration and interaction. Educational practices on clothing maintenance, for example, as in the case of Mending, could enable new habits, which would allow for the slowing down of consumption and the extension of the life cycle of clothing. (House of Commons Environmental Audit, 2019) The Centre for Sustainable Fashion at the London College of Fashion states that there could be a substantial reduction in carbon emissions and reduction in water pollution from

manufacturing processes. In this sense, we could give a new impetus to consumers, clothing users, and the fashion trade to create a real response to real needs and show new business opportunities in sustainable fashion.

4 UPCYCLING

Upcycling is a process of creatively reusing products and materials to create new objects whose function is differentiated from the original products (Lucietti et al., 2018). "This is one reason why recycled labels are generally independent brands: the choice of material and method is not primarily motivated by commercial opportunities or current trends, but by concern for sustainability" (Aus, 2011, p. 43). It is increasingly becoming a way of thinking and a working methodology, being used as a resource for learning in the construction and deconstruction of clothing. Its importance lies in the fact that it is a pattermaking support exercise. Through the disassembly of pieces, the construction processes are captured and recorded, thus supporting the design methodologies and stimulating innovative ideas and new ways of creation.

The need for the profitability of raw materials, good conservation practices, and their subsequent transformation is essential in fashion's learning processes (Domingues, 2020). Besides stimulating the creative and technical process, this option and creative possibility are viable for designers who want to produce small-scale collections and unique pieces and preserve their identity and aesthetic language. Besides stimulating the creative and technical process, it becomes essential, as mentioned by Morais (2013), to rethink Fashion Design, considering more sustainable work methodologies and integrating textile waste and recycling as raw material in a new production cycle, either through the disassembling of textiles or the reuse of pieces.

Since the Upcycling methodology goes through different levels in materials' choice and transformation, its decoding and dissemination become crucial to enable the interest in the practice and efficiency of textile waste utilization in a wider way (Aus, 2011). Considering that recycling implies using specific technology, upcycling is one of the easily implementable methods in fashion design because the main contribution is that of the designer, and the technology involved can be considered basic.

5 MENDING

Amid new and renewed methods used to recover used materials, waste, and end-of-life garments, Mending is a less invasive, environmentally friendly, and less resource consuming way of giving new life to discarded and discarded clothing from personal



Figure 1. Coffee sack coat with Embroidery by Alice Lee. Handmade coat created by used jute coffee sacks. Source: www.youngbritishdesigners.com.

closets, company warehouses, and the tons of scraps and leftovers from production environments. Mending clothes for durability and maintenance has always been a habit by part of the world population; however, only around the 60s, with the development of the global fashion market, when clothing became more affordable, is that people began to equate the arrangement of them and to opt for the disposal and purchase of new products. Mending had a major impact during World War II, with the “Make-do-and-Mend” movement (Gwilt, 2014) that, in the face of the devastation of war, motivated citizens through various types of propaganda to better manage their clothing needs. Despite the differences between present and past, the Make-do-and-mend movement, created by the British Ministry of Information in the 1940s, suggested to citizens tutorials on how to intervene in clothing in order to meet needs, such as transforming and mending, helping to extend the life cycle of clothing and its materials.

Techniques such as Sashiko (Briscoe, 2011) have been part of rural craftsmanship in Japan since the Edo era (1615-1868); its practice strengthened clothing, improved thermal capacity, and was a form of use of textile waste. These decorative stitches were created on layers of fabrics, usually cotton or linen, and dyed with indigo. The patterns and motifs drawn through these stitches could identify different regions or even who was the maker. Sometimes the clothes



Figure 2. A small group of Scouts mending their clothes, with the help of the Scoutmaster (left), at a fruit-picking camp near Cambridge, 1943. Source: <https://www.iwm.org.uk/collections/item/object/205200381>.

could tell decades of history through the patches, so it was something that people bonded emotionally and spiritually because it was a family piece. Its practice was encouraged to young people as an educational method, encouraging patience and perseverance.



Figure 3. Sashiko Kimono, mid-19th century, Japan. Source: <https://www.metmuseum.org/art/collection/search/50805>.

In Portugal, this activity, as in most countries, belonging to the sphere of female education, whose knowledge was transmitted from generation to generation, through the use of magazines such as *Mulher-Modas e Bordados* or the *Mocidade Portuguesa Feminina*, which were great engines for learning and enabled, through tutorials, the incentive to save and learn skills in the execution of these tasks. It was also common in household economy books to have a section dedicated to clothing treatment, namely washing, maintenance, and use to last over time.

Nowadays, according to the report *Fixing Fashion: Clothing Consumption and Sustainability 2019* (House of Commons Environmental Audit, 2019), there is an urgent need to implement training sessions for the repair and care of clothing, as well as the growth of services that teach techniques that enable the provision of manual skills.



Figure 4. Norwegian Sweater, sweater reconstruction work, Celia Pym Photograph: Michele Panzeri Source: <https://1granary.com/designers-3/schools/royal-college-of-art/celia-pym/>.

Attitudes such as mending are activities extremely linked to the basic pillars of sustainability. An alternative to consumption, a new form of economy, and support to the social sphere refers to Artez (2016), reinforcing culture and exposing learning throughout social life. Bringing the community closer to some

traditional crafts (such as mending, weaving, embroidery, and knitting) allows for applying these techniques in other media besides the original ones, being the starting point for the techniques modernization and creation of innovative substrates. In this sense, the example of Fabrican's spraying technology can be understood as an innovation in producing textile substrates, which allows creating shaped surfaces, eliminating the waste of cutting. This technology consists of forming a textile surface by cross-linking fibers that adhere to each other to the sprayed surface, giving rise to a non-woven fabric quickly. This spray technology uses recycled fibers from discarded clothing and other fabrics, allowing the damaged surface to be repaired with the same spray, with an evident extension of the product's useful life.

6 PROJECT-BASED EXPLORATION

Based on a theoretical framework where different aspects of creativity and sustainability were collected and organized, a project-based exercise was developed for the practical application of some of these fundamentals. The exercise was developed with participants of both genders and aged between 18 and 27, with skills in designing and producing textile objects, such as upcycling and mending, to develop an innovative textile object.

In general, the participants were unaware of the purpose of these practices and their relationship with the sustainable fashion area. Although these practices have been used since the beginning of civilization, this exercise on upcycling and mending reveals curious data about these practices. Mending was recognized by the participants as general knowledge and practiced daily and used for relatively small and simple repairs. In recent years, the dissemination of "upcycling" on social networks and as a fashion trend have aroused the interest of younger generations and new designers.

From a more exploratory and creative point of view throughout the exercise, it was notoriously difficult to begin the projectual intervention, either by its complexity or by the apparent lack of practical and technical knowledge. It is necessary to recognize that knowing does not imply that there is a practice, and in this way, the balance between the explanation of the problem and its practical consequences will be crucial. It was possible to recognize that the demonstration of the Product Life Cycle was an enlightening factor for the participants' understanding of the importance of these practices in reducing consumption and consequent production. In this sense, most participants declared a change in their perception of clothing and textile materials consumption, having become aware of the environmental impacts caused and the amount of material and energy resources consumed in this kind of production.

During exercise presentation results obtained with the development of the project-based exploratory exercise, the participants pointed out that the most important factor obtained throughout the creative process was the awareness of the clothing materiality. After the textile product is discarded or at the end of its useful life cycle, there is now the possibility of glimpsing new possibilities of using the textile material for a renewed creation of products enabling different uses than the one initially projected.

7 FINAL CONSIDERATIONS

Increasing the emotional bonds of the goods we acquire and use can greatly improve sustainability indicators by associating to the acquired object sensations and emotions that intervene in the users' association mechanisms of pleasure. In this sense, and considering the greater proximity with the acquired object, it may be easier to give it greater maintenance and increase its use time. The valuation of textile products from the point of view of sustainability allows different aspects and approaches to be valued: the valorization of manual work, the ability to create stronger social connections through its identity, the valorization of symbolic acts associated with it, such as those adopted in the design project, but also the search for a renewed and friendly creativity. This is a multidisciplinary and multifaceted attitude, focused on theoretical foundations and manual practices rooted in popular culture, even with the unquestionable support of new technologies.

Implementing renewed individual and community learning measures to reinforce manual and social skills concerning sustainable fashion will allow for a more holistic connection and a different perception of the entire apparel supply chain. Thus, these new connections, the creation of a new collective consciousness, as well as the design of products based on the study and evaluation of their life cycle will increase the capacity for active intervention by all stakeholders, promoting the physical and affective durability of clothing, postponing the discard and increased waste that is intrinsic to it. Clothing is an essential social good and needs greater appreciation by the community at large for its impact on the environment and the fashion industry, which urgently needs to balance its relationship with the planet. The understanding that fashion concerns everyone and reflects our behaviors, whether conscious or not, implies enough reasons to defend choices that favor quality, durability, and better clothing maintenance by users. In this sense, there was a need to link the practice of upcycling and mending to the fashion industry's problems and how they could be part of the solution. The symbiosis between different project design subjects is essential

for the community's perfect consideration and understanding, as was visible in the practical exercise.

On the other hand, the industry should offer business in maintenance and repair and should see sustainability as an opportunity for new creative and productive processes. The role of fashion trends would be an excellent support in disseminating to encourage these practices (Sustainability et al., 2017).

The systematic exploration of the sustainability theme by the fashion industry is a source of inspiration and knowledge, building bridges between clothing and the consumer, providing greater dialogue and understanding, based on the critical and knowledgeable spirit of both parties, and turning the consumer into the key element for the assumption of design-relevant sustainable practices and a lever for circular fashion innovation.

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Pause to think: Creating a fashion collection through music and emotions

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ABSTRACT: The human brain is a complex organ. From studies on emotional intelligence, neuroscience, psychology, and others, it has come to be seen more emotionally, making room for studies on thinking that lead to creativity. Thus, this article presents experimental research with a qualitative approach, where a methodology was developed to stimulate creativity through music directed to creating fashion collections. To this end, the literature review was initially carried out; an experiment was conducted where exercises were applied with fashion designers who used music as the only stimulus for their creations. As a result, it was realized that the use of music to boost creativity could be as efficient as the already known and most used sources of visual inspiration.

Keywords: Creativity, Music, Human brain, Fashion design, Clothing design

1 INTRODUCTION

Nowadays, creativity and creative environments are subjects discussed and questioned in scientific and commercial fields. Within Fashion, creative processes go through several phases, from research and development to materializing in products and services. The expectations of young fashion designers will sometimes be limited because their professional life (creative process) will be conditioned to the target audience and market requirements. Eventually, they will need to adapt to a molded format, restricted to the repetition of the collections themselves or by adapted copies, as the fashion system demands speed in creation and production to provoke/promote consumption.

On the other hand, there has been a fascination with the human mind's creativity, especially when individuals have to deal with their own emotions. When the fashion system paradigms are questioned – in a pandemic scenario, in the urgent need to adopt sustainable practices – it is justified to think about new concepts, applications, and ways of communicating through fashion with creativity. The emergence of new markets and new consumer practices elevates the status of innovative, “cool” products committed to concepts such as distinction, eccentricity, and renewal. Kerner & Pressman (2008) state

that “cool” is configured as a strategy, and it is the best path to be taken to stand out from the competition. However, this will only be achieved when being a result of a successful creative process.

Creativity is seen as one of the engines of economic and cultural knowledge, as it understands processes that combine cognitive, conative, emotional, and environmental factors in an interactive way (Lubart, 2003). From a market perspective, the need for innovation has never been more urgent, and the desire for the new so widespread, thus making the next generations more creative, is an undeniable task of society within the capitalist logic. So, it becomes important to cultivate the creative ability and the taste for creation as a virtuous purpose (Ribeiro, 2018).

Many factors such as environment, aromas, lighting, and sounds can arouse sensations that generate more original thoughts concerning creation. Furthermore, music can also serve as a stimulus for opening new creative ways due to the stimuli and sensations it causes since it stimulates dopamine production and accesses the right side of the brain, directly related to creative activities (Sacks, 2008).

In the meantime, and regarding the designer's work, this article proposes a new way of stimulating creativity to develop fashion products. It presents the results of experimental research with a qualitative

approach, where music was used as a basis for the execution of practical exercises oriented to the conception of a conceptual fashion collection. Music was worked as an element of ambiance and inspiration, its aspects – such as rhythm, beat, and style – were translated into design elements, such as line, shape, silhouette, and color, and innovatively materialized in fashion products.

2 THEORETICAL FRAMEWORK

2.1 *The music and the brain*

Darwin assumed that our “semi-human” ancestors used musical tones and rhythms in courtship periods, in transitions when all kinds of animals were excited and mated not only for love but also for intense impulses of jealousy, rivalry, and triumph (Levitin, 2013). According to Levitin (2013), the first flutes found, made of mammoth bones, date from at least forty-three thousand years ago; music is observed in all cultures that have already been studied and recognized as an intrinsic part of the human being. Through history, universality, and popularity, researchers in the field assumed that the human brain could be equipped with a “musical chamber,” which would be in the cerebral cortex and would be responsible for detecting and interpreting sound signals (Levitin, 2013). Over time, it was discovered that it was much more than just the “musical chamber.” Music can create brain explosions, and the brain activity provoked is so intense that the behavior is more like a complete body workout.

As Levitin (2013), Darwin also assumed that “speech” started to evolve after this primitive music. He considered the eyes a miracle of evolution and the ears very complex and beautiful, with their trajectories of sound vibrations from the external channels, passing through the membranes of the eardrum and undergoing interpretations in the brain. According to Sacks (2008), the English philosopher and anthropologist Herbert Spencer said that music had arisen precisely because of the “lack of emotional speech,” generated through the emotions the human brain had developed and evolved until that time. The author also states that fear was the first feeling focused on human survival through the many hostilities of the world around. Furthermore, the Swedish composer and writer Rousseau believed that music and speech were born simultaneously and diverged over time (Sacks, 2008).

In addition, for the American philosopher and psychologist William James, music is an “accidental genesis,” an incidental birth that resulted from the auditory organ by its own function (Sacks, 2008). Finally, in contemporary times, the American psychologist Steven Pinker (1997) says that if music disappeared from people’s lives, their lifestyles would

remain unchanged. However, he believes there are individuals with language instinct or highly evolved musical instincts, regardless of how this evolution occurred (Sacks, 2008).

However, humans are considered a musical species, as well as a linguistic one. Most people can perceive music, musical tones and timbres, intervals between notes, melodic contours, harmony, and even more “rhythm.” Individuals integrate these aspects using many parts of the brain, and both the appreciation and the reaction are always “emotional,” where each area of the cerebral cortex is responsible for a stage in this process. The primary auditory cortex is responsible for sound perception, the primary cortex is responsible for sound recognition, and the cerebellum is for emotion. The entire sound transmission takes place in a matter of seconds, and there are differences between mere listeners and instrumentalists in musical interpretation, but they reach the same conclusion (Sacks, 2008).

Levitin (2013) states that the more he learned about science and music; he noticed a fascinating similarity in both, for never provoking the same experience twice in the same way. Both being sources of surprise and satisfaction, the author explains that music and science are no longer different areas and do not mix; both music and science teach a lot about how the brain works, and both can say a lot about people.

2.2 *Do individuals stop to think and to feel?*

Daily, the news tells stories about lack of civility, lack of security, evil, aggression and copies, plagiarism, false identities, and piracy. Very often, stories emphasize emotions and sensations, and in the so-called network society (Castells, 2005), they end up spreading very quickly and with global reach. This type of news has continuously grown in the last decade, these years of anger and despair in families and communities. People locked in their homes watching television or receiving digital information, some abandoned, neglected, or mistreated, in addition to the increase in depression across the planet (Goleman, 2016). These data drive the development of studies related to emotion, and in this scenario emerged technologies capable of improving the visualization and perception of the brain, the functioning of emotions, and how external factors (such as drugs and other therapies) can contribute to the relief of emotional crisis, causing an impact not only on the individual but on the entire community.

Neuroscience researchers, such as Goleman (2016) and Pink (2017), comment on the delay in such procedures and lament that science is only now looking more closely at the depth of human emotion. When presenting in 2016 his book entitled “Emotional Intelligence,” Goleman reported having had to wait until that moment, where the harvest of

scientific age information was sufficiently abundant, to write it. Thus, it can be said that nowadays, there are also other efficient ways of measuring intelligence and the so-called Intelligence Quotient (IQ). The capacity for self-control and compassion, love for others, respect, goodwill towards others causes neurotransmitters to flow constantly, making the brain more active, more intelligent, and consequently, more creative (Goleman, 2016).

Therefore, Goleman (2016) states that there is a representation of predisposition for action for each emotion felt. Even the name given to humans, *Homo sapiens*, or “the species that thinks,” does not seem, in the light of science, to find the place of emotions in people’s lives. Moreover, this is probably because the human species has, for a long time, been concerned only with its survival. Some “protocols” seem to have tried to control human emotions, such as religious commandments, philosophies, and theories, commonly presented in books as suggestions of new habits and lifestyles. In the meantime, Goleman (2016) still states that, as Freud described in his book “*Civilization and its Discontents*” (1930), society must impose rules from the outside to control the waves of emotional excess that arise too freely in its interior. In the digital age, humanity created behavioral parameters to feel the approval of society. This fact can be seen, for example, in the way, social networks were dimensioned: an interaction between users takes place through the so-called “Likes” (Goleman, 2016).

However, some professions allow individuals to develop a high level of emotional intelligence. Teachers, religious leaders, politicians, salespeople, artists, and designers, for example, tend to be more effective in the professional and personal spheres because of their intrapersonal motivation. This is because their professional activity provides direct access to their feelings, and thus, they can distinguish which would be the best behaviors to be adopted to achieve their goals (Damásio, 2017).

2.3 *What can influence creativity?*

Working creatively can mean, for the individuals, to challenge themselves every day, searching to improve their perception of the world and direct their creativity in favor of elaborating new concepts, products, and services. Mastering one’s creative process is an important exercise these professionals practice, especially when they are still students. Those aware of their errors and limitations do better and understand that creative stimuli can arise from the most diverse situations, such as work and study and moments of leisure and social life.

For some students, the exercise of intellectual activity is considered pleasurable and may provide success and recognition in the future, often through awards. However, Howard Gardner (as cited in

Ribeiro, 2018), a researcher psychologist linked to Harvard University and author of the theory of multiple intelligences, warns that awards for good performance in studies or contests may not be so beneficial because self-awareness of being the best of you and the satisfaction of learning must be the real purpose, bringing the true feeling of happiness. Still concerning to attitudes and awareness of emotions, Glória Leon (as cited in Ribeiro, 2018), a psychologist at the University of Minnesota, conducted studies where it was possible to observe that many people are unable to distinguish the difference between their feelings and physical sensations, like between being scared, angry or hungry, for example. This can take them to disturbances and the lack of awareness of their emotions and body signals, triggering various health, learning, and even creativity problems.

Thinkers widely discussed the theme of creativity in ancient Greece, and many of their points remain relevant to the present day. Plato said that a poet could not create without having a muse to inspire him and that this individual was extraordinary for having the gift of expressing his creative ideas given by the gods (Ribeiro, 2018). According to Dacey & Lennon (1998), Hesiod also shared the same concept and reported that, when Zeus’ daughters offered him a branch, he breathed in the divine song, and thus he was allowed to reveal the glory of the gods. Later in the story, Beethoven said he was enveloped by a kind of “spirit” while creating his compositions, which invaded him and dictated the music (Ribeiro, 2018). And still, in this mystical and irrational approach, Rudyard Kipling, an English writer, stated that a very familiar “demon” lived in his pen, which accompanied him in the writing process (Ribeiro, 2018). On the other hand, Aristotle stated that creativity was an individual and intimate inspiration within his mental associations and that is derived from his or her general knowledge, not from divine implications (Ribeiro, 2018).

Looking at the present days, the introspection of some designers, artists, writers, or composers can be justified by the same beliefs and ideologies – related to something mysterious or supernatural—however, creativity itself has been losing attention. Ribeiro (2018) states that the French psychiatrist Édouard Toulouse investigated these psychological aspects, such as perception, memory, reason, and personality, while Alfred Binet, a French educator, and psychologist, associated creativity as part of human intelligence. Freud said that creativity comes from conscious reality and unconscious drives, suggesting that creative people express their desires (Ribeiro, 2018). Thus, these researchers brought the discussion about creativity to the psychological and rational sphere.

In the second half of the twentieth century, there was a deepening of research on creative ability and

its development in the human mind. The American psychologist Joy Paul Guilford (2020) said that creativity requires several intellectual capacities so that it is possible to see the problem to be solved, analyze it, then evaluate and synthesize it with fluidity and flexibility of thought. As Damásio (2017) puts it, imagination and emotion were, for a long time, excluded from the realm of intelligence, with ignorance and the pretext of being irresponsible and dangerous. The author explains that the execution of a sculpture or a surgery, the interpretation of a song or a choreography, and the understanding of others or oneself, do not fit in the reason. These activities are not related to reason and are no less important than the mental activities tested in IQ assessments (Damásio, 2017).

The Argentine-American mathematical scientist Gregory Chaitin (2011) adds that more important than computers that execute programs is the intelligence of those who programmed them. Human intelligence is flexible and unlimited and, like memory, transforms reality and relates means to ends, creating transformations, inventing possibilities (Damásio, 2017).

Therefore, it is in this way that, nowadays, intelligence is measured: through the acceptance of imprecision, freedom of thought, and perception of information, and thus creativity reaches the unknown, the subjective, and materializes in ideas. A transparent border between reason and imagination separates and unites while experience or creation is transmuted from subjectivity to objectivity. A creative individual becomes rational when his creation is born; until then, there is a fusion between thoughts and information, methods and processes, experiences and research, mistakes and successes, and mainly, the imminence of contentment brought by success or eventual acceptance of failure. In summary, this is the concept of creativity by Joy Paul Guilford, the set of intellectual abilities in which fluidity, flexibility, originality, sensitivity to problems, and the ability to deal with complexity (Damásio, 2017).

2.4 *Creativity in fashion*

Fashion is a phenomenon that does not belong to all ages and civilizations, but that is undoubtedly the result of human evolution. The observation of how fashion develops allows identifying specific changes in certain societies, over time, especially about the way individuals dress (Barthes, 2014). These changes reflect the spirit of time – cultural values, habits, and behaviors (Souza, 1987) – materialized in clothes, shoes, and accessories by the hands of creative professionals: dressmakers, stylists, and designers.

In the field of fashion, creativity has always been aimed at proposing to break paradigms, go

beyond tradition, and propose democratization (especially in dress) through innovation (Svendsen, 2010). Lipovetsky (2009) states that one of the unique characteristics of fashion is searching for the new, making it a dynamic and ephemeral phenomenon. Because it is based on cultural manifestations originating from social interaction, individuals imitate each other, and thus the information spreads, in what Barthes (2014) calls mental epidemics. Therefore, the work of the fashion designer consists of the challenge of starting from the existing one, creating new concepts, new styles that can be imitated, and, in this way, maintain the continuity of the cycle. On the other hand, it is known that all imitation/copying is based on something previously consolidated, in other words, on a previous creation that was successful before. The history of fashion shows several eternalized looks, iconic styles taken as a reference until now, such as Coco Chanel's tweed suit, Christian Dior's New Look, or Yves Saint Laurent's Women's tuxedo many others (Fogg, 2013).

Seiwerright (2009) states that research in the search for inspiration has fundamental importance for the fashion designer's creative process and that the sources can be the most diverse, such as historical events, nature, arts, architecture, literature, cinema, music, technology, among others. Thus, both young and experienced designers seek historical and iconic references as inspiration sources, such as those mentioned above. Often the interest is in the political character behind the creation, other times in how the materials were used and the production techniques were carried out, or simply because of their aesthetic-visual composition. However, it is important to note that, regardless of which sources they originate from, these references are materialized in fashion products through the so-called visual elements of design: point, line, shape, silhouette, color, and texture (Treptow, 2013; Löbach, 2001), in other words, inspiration starts from the abstract to the concrete.

3 METHODOLOGY

In the first phase, exploring this theme took place through extensive bibliographic research, mostly by consulting books, researching scientific articles, master's dissertations, and doctoral thesis, in other words, primary and secondary information (Marconi & Lakatos, 2003). Among the topics sought to provide the necessary theoretical support was the evolution of the human mind through neuroscience, emotional intelligence, creativity and music, and brain studies.

After the bibliographic research, a method was developed to stimulate creativity through musical melodies to create a fashion collection.

The proposal was for the designer to create a contemporary, original and creative clothing proposal in terms of design, volume, and details. In this case study, the proposed theme was the “construction of the self,” which, being an interesting challenge that escapes from a traditional proposal.

The Clothing Design Methodology traditionally is a more or less linear process that includes several steps, starting with the research and analysis of concepts supported by a theme; fashion trend research; characterization of a target audience; materials selection; follows the phase of creativity; the selection of the best proposals, and finally the creation of the technical sheets for the prototyping. Traditionally the creativity phase, the designers’ work from visual references for the generation and creation of new ideas, from the mood boards that bring together all the information collected in the research phase.

In this case study, the creativity phase used a different method to stimulate divergent thinking to generate new ideas.

This method consists of, on a first phase, proposing some sketch exercises to be performed while the designer/student listens to music. At first, the designer executed a drawing with the eyes blindfolded (using a soft fabric), using music as the only tool of sensitization and stimulation. Then, the stripe was removed, and he could execute new drawings, based on the first one, also listening to music. Two distinct musical styles were used: in the first moment, the Mozart classic “No. 5 Allegro”; and in the second moment “Alegria,” the soundtrack of the same name spectacle, by the Canadian circus company Cirque du Soleil. The researchers chose the music used in the first moment, and the one used in the second moment was chosen by the designer based on the sensations and emotions he felt from the first experience. This, then, was also used throughout the process of creation, planning, and development of the fashion collection that resulted from this experimental project. Every fashion creation experience was inspired exclusively by the music heard and the visual elements (sketches) created from the emotions generated by these melodies. The experiment records were made by observation and photos taken by the researcher, and testimonies of the designer.

4 RESEARCH OUTCOMES

As a result of the method’s first moment, an abstract sketch was drawn, with organic lines, elaborated by the designer while he was blindfolded and listening to Mozart’s song “Allegro No. 5”. This drawing, entitled by the designer as “Waves, Layers and Calm” (Figure 1), is composed of free lines, sometimes more intense and sometimes softer, which express the emotions felt by the designer when

listening to the music, and which later expressed having “felt a soft joy and calm,” allowing himself “to be lulled by the melody.”

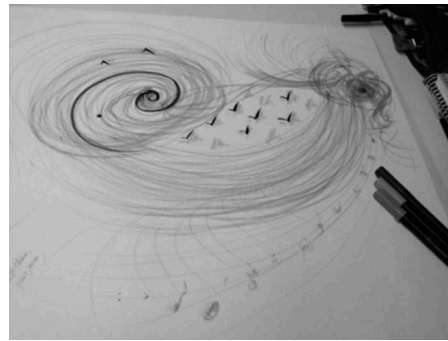


Figure 1. “Waves, Layers and Calm,” drawing from the first stage of using the musical method (Source: authors, 2017).

“From the first drawing, then, the idea of the name of the collection came up: AEIA (vowels of the word “alegria,” which means happiness in Portuguese.” “The design was also used as an inspiration to generate the desired ambiance: lightness, freedom, and delicacy,” explained the designer. These aspects were later materialized in the Looks of the collection – in the manipulation of fluid, organic and concentric lines for the construction of the silhouette and the use of light, transparent and flowing materials.

In the second phase of the method application, the planning and choices of techniques and technologies for the collection began. For this phase, the designer chose the song “Alegria” (by Cirque du Soleil), given the awakening of the emotions of joy in the first phase. At the beginning of this second phase, there was a concern to raise the result of the first phase to more concrete terms, so the eyes were uncovered, and the designer – still on the effect of the melody – could make a drawing more representative of his emotions, on the model-shaped figure (Figure 2).

Regarding the technical aspects of the products created, from the sketch, the design elements that would be worked throughout the collection were conceived, such as the horizontal organic lines, the overlapping layers, and the color (or absence of it). Concerning draping, the pieces were then thought to have overlapping layers so that the consumer could wear them in a personalized way. The white color was chosen, also present in the drawings, returning to the image of lightness and freedom intended for the collection (Figure 2).



Figure 2. Sketches on a model-shaped figure and execution of the collection's first look (Source: authors, 2017).

The sheaths of the pieces were made by laser cutting to allow lightness and transparency once again. The overlapping layers refer to the sense of the order of the musical staves, where the lines are placed in layers, the notes are placed on them, just as the composer gives birth to his creation.

Figure 3 presents the other looks of the mini-collection created from the concept and elements worked in the context of music and emotions.

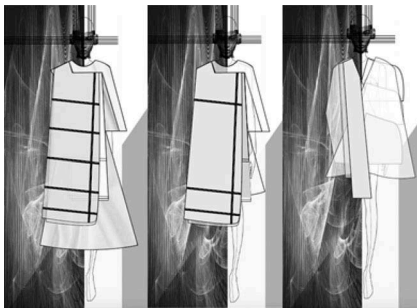


Figure 3. AEIA collection sketches (Source: authors, 2017).

Through the images, it is possible to see that the collection has conformity between the elements found in the lines and layers – the result of the method applied in the first phase – and how the clothing design elements were worked from then on. This demonstrates an interaction with the inspiration sources used in the creative process and the emotions conveyed by the songs.

Under the emotional effect aroused by the music, the collection's communication image was also created. Thus, he executed the composition entitled "Head/Musical Mind" (Figure 4), composed of female human figures with musical notes in place of hair – musical notes come out of the head instead of hair. From this drawing, it is possible to conceive the concept of the fashion image of the collection.

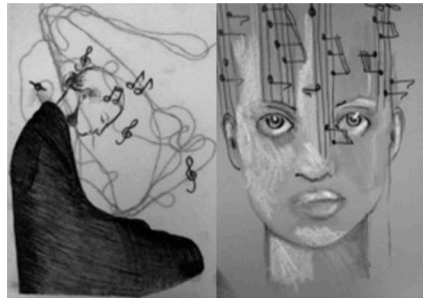


Figure 4. "Head/Musical Mind," representative drawing of the collection concept, collection communication image (Source: authors, 2017).

5 FINAL CONSIDERATIONS

Developing the most diverse skills necessary to execute creative processes must be at the heart of the designers' education. As professionals working in a multifaceted and overly competitive market, own's creativity is put to the test every day; each project has a new challenge. Sometimes designers see their creative skills questioned, as they need to direct their ideas to the consumer's interests and in line with the brand identity, the resources available, with social and environmental responsibility. Therefore, there is a need to train professionals with transversal skills to answer questions about creating, planning, producing, and commercializing products and services.

The exercise of creativity has been the subject of much debate nowadays, both in the academic and professional spheres, because creation is considered a profitable practice and the expression of emotions. For some, it can be seen as a pleasurable intellectual activity, a path taken in search of success and recognition, even satisfaction and happiness. Some studies showed that being aware of emotions and knowing how to distinguish them from physical sensations is important for successful creation and avoiding health problems. As creativity is a brain activity, research was conducted to understand how the brain works from internal stimuli – emotions – and external factors, such as drugs and other therapies. Neuroscientists claim that exercising the domain of emotions

makes the brain more active, intelligent (the so-called emotional intelligence), and, consequently, more creative.

In fashion, creativity can emerge from the most diverse sources of inspiration, such as nature, technology, the arts, and even music. Historical references to iconic looks are also widely used, both for the content of the symbolism they carry with them and the originality of their aesthetic-visual compositions. These materialize, then, in visual elements of design, using lines, shapes, colors, and textures. In this way, inspiration leaves the field of ideas and abstraction and becomes concrete, physical.

In the meantime, music can be considered an efficient source of inspiration for fashion designers, especially those at the beginning of their careers. The perception of music is as much present in human cognitive development as the linguistic perception; however, the tones and timbres are recognized by the area of the brain that is also responsible for emotional issues. Therefore, developing a methodology that stimulates the brain through music becomes efficient for developing fashion products, as it contributes to the exercise of the flow of emotions of the individual who creates them – related to the concept of emotional intelligence. Therefore, through the presentation of the AEIA collection, it was possible to perceive that creativity can pass through culture, information, life experiences, and the emotions brought by music. The use of music is considered beneficial for triggering emotions capable of resulting in more original and innovative ideas and making room for experimentation.

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Analysis of robotics field mats as design objects

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ABSTRACT: A field mat is a physical surface area used in robotics games as a big game board. This paper investigates elements of a Farm Field Mat designed as an educational tool to teach robotics and team-building skills to both children and adults. The findings indicate that the mat is a narrative space that supports a sense of flow and agency. The findings also suggest that the narrative space contributes to meaningful play while remediating two media: game boards and maps. Finally, the fun embedded in the game environment can immerse players into a deep state of concentration and flow, turning the media into a simple and yet powerful educational tool.

Keywords: Field mat, Robot games, Agency, LEGO education, Narrative space

1 INTRODUCTION

FIRST (For Inspiration and Recognition of Science and Technology) aims to inspire young people to be leaders and innovators in science and technology. It was founded in 1989 to inspire youth to create interest and dive into the science and technology world. Throughout the years, the foundation has created innovative programs that motivate kids to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills (FIRST, 2021).

The first robotics field mats were presented to the public during the third FIRST LEGO League tournament in 2001 (DOBBYN, 2010). Since then, it has been used as an educational tool to engage kids from 6th grade to high school in exciting, mentor-based research and robotics lessons/programs that help the students become sciences and technology leaders and well-rounded contributors to society (FIRST 2021). With the popularization of FIRST programs, which release a new thematic mat every year, many companies, teachers, and educational institutions have created their versions of field mats to meet specific educational projects and robotics activities.

Using a search string (FIRST) AND (field mat) AND (robotics) in Google Scholar, 34 results came out in which only 14 were related to Educational Robotics. However, no article explicitly discussed the mat as a design object. Although there is much research led by FIRST, there is hardly any information about the mat and how it can influence, encourage, motivate and impact its users. Until now, the mat has only been seen as part of more extensive educational

programs and not as neither a narrative space that creates an immersive experience to the players nor the center of a playful activity that can sparkle, among many other things, the joy for learning.

The mat mediates a pedagogical activity, keeps the students focused on the task, and supports the play experience. According to Rochat (2013), play is universally joyful and engaging and a fundamental liberation from ordinary life, from the purely functional aspect of life.

This text investigates the role of the farm field mat designed to teach robotics in an educational environment. Therefore, this paper argues that a field mat supports a playful environment and can evoke a sense of fun, concentration, and concrete outcomes connected to robotics games.

This field mat was chosen because it has been tested as an educational robotics tool for middle school and used in corporative team-building workshops to train leaders of different industrial companies in Brazil. In addition, the farm field mat presents common elements to other traditional mats used in schools and other robotics solutions.

2 LITERATURE REVIEW

Tapscoff et al. (2013) define narrative spaces as “information spaces that ground all media based on characters, situations, plots, and other entities.” Ryan (2014) describes five elements that form a broader perspective about a narrative space: the setting, spatial frames, story space, narrative (or story) world, and the narrative universe.

The space used as narrative setting in a game is a vital element of a joyful user experience because it supports meaning and brings a sense of immersion to the players (Yiannoutsou, 2010). Hirvonen and Igareda (2017) stated, “narrative setting is a physical, inanimate place of action having constitutive objects and entities (or things that become constitutive or identifiable with that setting) as well as different levels” that have multiple layers and dimensions in which the action happens.

Ryan (2014) identified spatial frames as another element that constructs a narrative space. For her, a spatial frame is the “immediate surroundings of actual events” that can shift scenes in action and flow into each other. They are organized hierarchically by containment relations, and their boundaries may be either clear-cut or fuzzy (Ryan, 2014).

The story space consists of the spatial frames and “all the locations mentioned by the text that is not the scene of actually occurring events.” It combines all the spaces relevant to the plot, including those mapped by the characters’ actions and thoughts (Ryan, 2014).

The narrative world is the “story space completed by the reader’s imagination based on cultural knowledge and real-world experience” (Ryan, 2014).

The narrative universe incorporates the spatio-temporal features of a world and all the psychological characteristics that the characters carry into the story world (Ryan, 2014). Concepción (2017) summarizes the narrative universe as “the world (in the spatio-temporal sense of the term) presented as actual by the text, plus all the counterfactual worlds constructed by characters as beliefs, wishes, fears, speculations, hypothetical thinking, dreams, and fantasies.”

Ruotsalainen (2015) argues that the play extends beyond the spatial frames through space and temporal extension, creating a narrative space. The spatial frame intersects with several other layers, such as the willingness and predisposition to engage in a narrative universe. This intrinsic motivation to enter a state of mind of total immersion is a characteristic of activities that can lead the person to a state of flow.

Csikszentmihalyi (1975) proposes that flow occurs when the person finds a delicate balance between the activity’s challenge and her skill level. According to Csikszentmihalyi (1975), the flow experience can be characterized by six components present during an activity. Among them, four main characteristics will be the focus of this paper analysis.

According to Csikszentmihalyi (2014), coherence and no contradictory demands are critical in a flow experience. Furthermore, goals and targets must be organized according to a pre-established logic. For Csikszentmihalyi (2014), the flow experience is different from the daily perception of everyday reality

because it contains organized rules and regulations that make the action an automatic and not a complicated mechanism.

In addition to a specific demand, Csikszentmihalyi (2014) points out that the activity must provide clear and unambiguous feedback. In a flow environment, the person has a crystal-clear vision of her actions’ various possibilities and consequences.

A high degree of concentration on the activity is vital for the actor to achieve a flow experience. To Csikszentmihalyi (2014), distractors must be kept away to guarantee focus on the action. Besides that, the actor’s attention to the activity must be undivided into a limited stimulus field (Engeser and Rheinberg, 2008).

Therefore, a flow experience can evoke agency. According to Murray (1997), agency is the satisfying power that a person feels when taking meaningful action and immediately can see the choices taken. Eichner (2014) describes agency as the way individuals see themselves as empowered beings. For Eichner (2014), agency is a fundamental aspect of human action that depends on dispositions and resources and is neither fixed nor stable (Eichner, 2014).

For Eichner, mastering narrative, choice, action, or space supports personal agency. Mastering narrative means mastering the textual structure that makes a narrative. Mastering choice is the feeling that the actions influenced the outcome of the process. For Eichner (2014), mastering action is the most straightforward form of agency, “since it is visualized analogy of human action with the incorporation of the bodily movement via mouse or controller.” Finally, Murray (1997) describes mastering space as the pleasure of moving around an unfolding space in an exploratory way. Eichner (2014) elaborates that the agency is not restricted to video games and a mode of involvement with media.

3 FIELD MATS

Kelly (2012) describes a field mat as a 1,22m x 2,44m plastic mat with graphics connected to a theme. The mat depicts an imaginary environment that makes up an area in which robots compete. For Seshan and Seshan (2020), the field mat is a thick, durable paper-like material on which lines and areas are printed with a background image that usually reflects a theme. The field mats were presented and became popular in the FIRST LEGO League robotics competitions, which began in 1999 (Dobbyn, 2010). According to Dobbyn (2010), for the first LEGO League events, the fields were constructed out of wood and plexiglass, and each team had to cut and put together all of the materials to build their playing field. In 2001 FIRST introduced the playing field mat where the lines and markings for the placement of the mission objects were printed on a vinyl

mat (Dobbyn, 2010). Magpili (2020) describes the mat as a “stadium” where a robot game is played.

Although most graphics on the field mat are decorative, some represent scoring areas where particular objects (or even the robot) must be delivered to score points. Other parts of the mat are designed for strategic reasons. For example, black lines may be part of the scene, but a robot’s Light Sensor may also use them for navigation (KELLY, 2012). Seshan and Seshan (2020) explain that the field mat is considered a central component of the competition equipment and the LEGO mission models.

The object of analysis in this paper is a field mat developed as the main playfield for workshop activities and games to improve team-building skills in big corporations in Brazil and serve as a playfield for secondary school children to learn the basics of robotics. This playfield (Figure 1) measures 1.5m in width and 3m in length, and it is usually positioned in the center of the room, where players gather to execute actions and game missions. According to Ioannou (2018), “such mats make it possible to train abilities that are not directly related to robotics,” but also practice other skills such as group work, critical thinking, and problem-solving. The size of the farm field mat is bigger than the usual robotics field mat. This size allowed more than 30 people simultaneously, providing an excellent environment for a teamwork experiment.

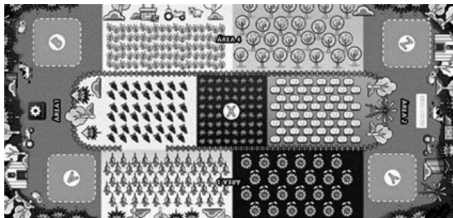


Figure 1. Field mat constructed for a Team Building Leadership workshop.

The theme depicted in the mat corresponds to a farm environment. This theme was chosen to entice the discussion about sustainability in the Brazilian economy and provide food for thought about the relationship between agribusiness and technology. The mat layout is divided into five major areas. Each area is a point of reference to the players that must complete the game’s mission. Areas 1 and 2 are labeled as Resting Areas and locate the buildings of the imaginary farm. There are four touchpoints identified within those areas by the letters A, B, Y, Z (Figure 1); these touchpoints are locations where players usually start or end game missions.

Areas 3, 4, and the Central Corridor are Action Areas. The game’s missions usually require players to program their robots to pass through or stop at one of those sections. These three sectors mimic the productive part of a farm containing a variety of crops. Area 3 has two types of fields: a wheat crop area and an orange orchard. Area 4 has a cornfield and a space dedicated to sunflowers’ cultivation. The Central Corridor has three types of plants: grapes, lettuce, and watermelons. An X is printed in the middle within the lettuce field, which players use as a reference in some games.

4 METHODOLOGY

The Close Reading method was used in this paper to analyze the field mat. According to Bizzocchi and Tanenbaum (2011), close reading is “a detailed examination, deconstruction, and analysis of a media text.” This method reveals insights about the design and usage of the artifact and might direct to the user’s experiences and emotions.

The first step of the analysis or “first reading” was to observe the artifact’s general structure, emphasizing main graphical elements. In that stage, the field mat was scanned a few times, and a review of the artifact was constructed in the format of a worksheet table. The mat’s central theme was identified, and all the key elements that represented the topic were included in the table. Afterward, the board’s main areas were listed and divided into playfield areas and simple graphical elements that validate the central theme.

For the second reading, a digital copy of the original computer file was acquired. Based on the previous worksheet list of playfields, each area’s screenshot was analyzed in further detail. Each area was rescanned, and a list of complex elements and ideas about them was created. This list generated a deeper understanding of the artifact as a whole and the meaning of each particular segment of the field mat.

Further readings completed a worksheet containing Ryan’s (2014) concept of Space, Csikszentmihalyi’s Flow Theory, and Eichner’s ideas on agency. This worksheet and the elements and ideas describing the mat gave form to the data used to describe how the field mat contributes to building the space as a meaningful dimension. The complementary and successive readings added to the worksheet a clear relationship between the object and elements of media poetics.

5 RESULTS & DISCUSSIONS

Bolter (2016) uses the term remediation to “describe how various media forms borrow from and refashion one another.” A historical iteration spiral process is embodied in the media culture that switches between

cooperation and competition among media forms. For Bolter and Grusin (1999), all media remediate other media at some point.

The artifact studied in this paper is a Farm Field Mat which competes and cooperates with other media. The first most apparent remediation is of a game board. Game boards have been around for more than 5000 years. Old game boards carved in stones appear in different places worldwide (e.g., Schädler 1995; Shimizu & Miyahara 2002; Simpson 2007; Uberti 2012). According to Norcia (2019), the first commercial game boards were hand-colored sheets printed in copperplate, which after printing, were cut into squares and pasted onto linen cloth for easy folding and storage. Field mats are also colored using modern computer software before being printed in a durable paper-like material that can be rolled for storage. Although the media is different, producing the game board and the field mat remains the same. This is also true when it comes to the design of both media. Today talented artists and designers produce field mats. Back then, skilled craftsmen manufactured the game boards with intricate detail (NORCIA, 2019). In terms of gameplay, both media also provide a similar function to the user. While a field mat is a thematic fantasized playing field for a robot game competition (Seshan and Seshan, 2020 and Magpili, 2020), the old game board is established as an imagined space with boundaries that is crucial for the players to understand the actions and rules essential to properly playing the game (Kinalzik and Heller, 2020). For Selinker (2011), a game board is often a “detailed map of something like a country, city, building plan, dungeon, or cave” represented in a media that can be laid on a table. Whitehouse (1951) explains that many board games are based on maps and that the earlier ones are “literally maps with a track incorporated.” Field mats remediate maps carrying the same heritage as game boards.

Maps are cultural texts that carry a collection of codes (Harley, 2009). However, to function as a readable text, every map creates distortions so a real environment can fit into a paper-like media. Thus, field mat media remediate maps because they represent specific space onto a printed media usually laid on a table to be translated and interpreted by the readers. However, while maps try to hide their fictional quality with a very technical and structured design, field mats make their fictional representation of an area very explicit to the viewer. Indeed, the gross exaggerations that drive the players into a purposely designed imaginary world set the scene for a total immersion into the game’s narrative. In the Farm Field Mat, the map-like representation of a specific farm area sets the scene for a narrative that draws the player into a country space with barns, animals, field crops, and farming machines. All of that viewed in an aerial perspective with exaggerations of

sizes and dimensions to accommodate all the narrative elements. According to Norcia (2019), maps did more than note mountains’ placement, the sea coast’s length, or cities’ location. The cartographic productions of the past were instruments of power over territories and the people within them, and besides all the technical information represented, the media implied subliminal messages such as ideology, beliefs, and practices to its readers (Norcia, 2019). On the other hand, remediated media tries to deliver a clear message instead of a subliminal one. For the mat, we identified two main messages.

The first one is about the environment and how a rural property should sustainably manage its operation. The discussion about how machines/robots will eventually be the primary labor force in farm field environments and how our society, especially children, should be ready to deal with and discuss this situation.

The second message is about behavior and teamwork. Irwin and Poots (2015) interviewed 32 farmers who agreed that two main aspects of teamwork, coordination, and communication, are essential to efficiently operating a farm. It is common to understand that farm work means hard work and that when someone shares the load with others, things can get done faster and better. When a group of people works effectively together on a task, they have the potential to offer an increased level of productivity, creativity, and adaptability than an individual could, working in isolation (Salas and Burke, 2005). The games played on the Farm Field Mat were all designed to promote teamwork and collaboration and were tested on a series of workshops for employees, positioned on leadership roles, inside two multinational companies (Renault and Furukawa) from September to November 2019. The workshop had five behavioral elements as implicit goals: create a group environment where members of a team could support each other; create an atmosphere where conflicts could be solved with the team; create games that promote the exchange of information among members of a team; generate situations where leaders could step forward to coordinate the other members of the team; facilitate situational awareness and decision-making during the games. Preliminary results showed that 342 out of 400 participants agreed that the workshop fulfilled developing teamwork skills. That evidence corroborates with the idea that the Farm Field Mat is a vessel to foster teamwork.

Elizabeth Harmon, a fictional prodigy chess player character in the miniseries *The Queen’s Gambit* (Frank, 2020), describes the chessboard as “an entire world of just 64 squares”, a place where she feels safe, a world that she can control and dominate. As in Harmon’s chessboard, the Farm Field Mat constructs a Narrative World for people that let themselves be involved in the game. The idea of

being on a farm transports every player to their fictional world filled with personal cultural knowledge of what a farm represents to each player. It also brings to life all the connections that one has with the farm environment. Moreover, during the game, all of those personal Narrative World clashes to form a Narrative Universe.

This universe is an environment that carries the intersection of stories of player's Narrative Worlds and stretches the discourse to a much deeper sociological debate about the role of technology in our modern society. The consequences and repercussions of technological agriculture become part of what the players live inside the game. Combining a farm environment and robotics builds a Narrative Universe of personal beliefs that go beyond robots moving on a field mat to accomplish missions. This collection of hypothetical thoughts, dreams, and fantasies evoked by the farm field mat becomes a real-narrative-world experience as the game, and the activities unfold.

As previously described, Ryan (2014) points out three more elements of a Narrative Space, besides the Narrative World and Narrative Universe. In the Farm Field Mat, the full extension of its 1,5m x 3,0m can be called a physical board with graphical elements. This social-historic-geographical environment and the combination of decorative and action elements, visually represented on the board, form the players' game setting. The farm field mat is basically where all the actions of the game take place. Areas 1 and 2 represent resting areas in the game board. However, they contain elements contributing to the field mat theme, such as trees, farm animals (pigs and cows), tractors, a well, a windmill, little wood shacks, and wood houses. These are part of the areas where robots navigate back and forth.

Areas 1 and 2 also contain the most critical touchpoints, represented by the letters A, B, Z, Y. These touchpoints, depending on the action players are executing on the mat, can be just a graphical element or serve as an essential station where robots depart or arrive. A touchpoint can become a vital part of the Setting as critical element for each game's narrated action. Unlike films and video games where background elements change all the time, the Farm Field Mat has graphical images plotted on its surface, and despite this stillness, the combination of graphics, areas, and touchpoints create different scenarios for each game mission. Thus, each type of game played on the mat has its setting with specific socio-historic-geographical characteristics.

During the workshop setup, players have their stations to organize, assemble, and program their robots. Although the Farm Field Mat is the center stage, all the planning occurs in an adjacent table or a support desk. These additional spaces represent the Spatial Frame of the activity because they are

secondary environments to the mat, and players continuously shift between them in a constant flow of actions. This collaborative feature and the shifting between Setting and Spatial Frame make the Farm Field Mat games appealing to the audience. According to Zagal and Rick (2006), an excellent collaborative game can be even more entertaining than individual games because it involves the collective contributions of all the players, promotes surprise and tension, and the outcome is mostly accountable to the decisions made by the players while moving between the boundaries of the narrative space.

Most of the Farm Field Mat graphics are composed of the representation of different crop fields. Although this is an unrealistic view, the representation of many plantations contributes to polyculture farms' idea. This polyculture view with a wheat crop, an orange orchard, a cornfield, a sunflower field, a grapes vine, lettuce, and a watermelon plantation are parts of the story space. This unusual setup can become part of the plot and the story. In addition, every rural area can also be considered an element of the story space because the Farm Field Mat can trigger individual countryside experiences and contribute to the players' immersion.

Most people, and especially adults, have no experience whatsoever in robotics. Thus, the game must present a delicate balance between the activity's challenge and the level of skill that the average player has while playing each game. This tuning between challenge and skill is key to the game's success and is one of Flow Theory's main features (Csikszentmihalyi, 2014). The flow was conceived during studies into motivational psychology via game-playing (Csikszentmihalyi, 1975 and 2014). According to Zagal and Rick (2006), games require a good narrative and a sense of flow state to be entertaining. The Farm Field Mat games are always preceded by instrumentalization moments where all the player skills are leveled before the game challenge starts. By following this procedure, the chance of generating a sense of flow is increased every time players feel absorbed entirely by a sensation of energy, pleasure, and deep focus in the activity itself. To immerse someone in a Flow state during a game, players must feel that they control the actions. Sweetser and Wyeth (2005) argue that to feel control over the task, the players must be sufficiently skilled, and the tasks must have clear goals and feedback. In the Farm Field Mat, the sequence of instrumentalization moment and game, plus the clear boundaries created by the Setting edges and its Spatial Frames, create an environment with specific demands. That means that every game played on the mat has clear goals and targets organized according to a pre-established logic. This makes no room for disconnected behaviors to the objectives and can drive players' attention away from the activity. All this environment generated around the Farm Field Mat

was designed with elements that manifest flow in games such as missions, plot lines, levels, gathering objects and artifacts, and solving puzzles (Jones, 1998 and Cowley et al., 2008). These elements and the challenge/skill features and immediate feedback support a Flow experience while playing on the Farm Field Mat.

These characteristics also contribute to concentration. According to Csikszentmihalyi (2014), a high degree of concentration on the activity is critical for the actor to achieve a flow experience. The combination of graphical elements, the Setting, the Spatial Frames, the Story Space, the Narrative World, and the Narrative Universe along with the challenge/skill balance, uncontradictory demands, and detailed feedback, make the Farm Field Mat an environment where players are so involved that nothing else seems to matter. The experience itself is so enjoyable that people will play the game with pleasure just for the sake of doing it.

Being immersed in the activity can trigger a sense of accomplishing something meaningful and flourishing, a feeling of satisfaction. That sense is described as agency by Murray (1997) and Eichner (2014). According to Haggard and Chambon (2012), agency “refers to the experience of controlling one’s actions, and, through them, events in the outside world,” leading to a satisfying power that a person feels when taking meaningful action. The Farm Field Mat’s narrative space combined with the sequence of robotics instrumentalization moment and game itself creates an environment that generates agency. Agency is also evoked by accomplishing something singular as programming robots that is meaningful for today’s society. In addition, the instrumentalization of robotics raises control, and the collaborative nature of the game raises meta-interactivity. The mat’s narrativized interface (Bizzocchi, 2007) contributes to mastering narrative and especially mastering space. Mastering choice emerges when creating a sequence of successful coding that leads the robot to move around all the spaces inside the mat.

6 CONCLUSION

This text investigated Farm Field Mat elements and how its narrative space supports a flow experience and evokes agency. The remediation of game boards and maps transformed the space into something meaningful. The mat becomes a play-action area and the center of a distorted reality that must be read and interpreted during the player’s game experience. The graphical theme of the media transmits a subliminal message about the benefits of working together in a collaborative environment as farmers. Furthermore, a message about the advantages of having

a polyculture set up conserves the soil and keeps a sustainable farm structure.

The Farm Field Mat analysis in terms of Ryan’s five-element narrative space indicated that in terms of the Setting, the combination of both decorative and action elements form action areas or touch-points. Ryan’s Spatial Frames expands the Farm Field Mat working together with secondary station environments (other desks) where players continuously move back and forth during gameplay generating a constant flow of actions.

The narrative space is broadened by the idea of polyculture farm setups and rural areas’ experiences inside each player’s mind generating a vast Story Space. The mat, additional stations, and the player’s personal experiences compose this space. Ryan’s Narrative Worlds stretches the space even further with a much deeper sociological internal debate. This debate brings the role of technology in our modern society and the consequences and repercussions of living in a world where agriculture is continually becoming dependent on new technology. The collection of personal beliefs, thoughts, and impressions about tech-agribusiness, its benefits of improving agricultural techniques to lower food prices and reduce poverty, and its fears of having robots genetically modifying the things people eat and consume create a more expansive Narrative Universe that closes Ryan’s narrative space (Figure 2).

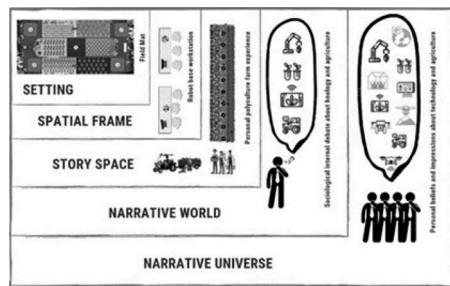


Figure 2. Representation of narrative space according to Ryan.

The instrumentalization of robotics activities and the collaborative nature of the game support agency. In this space, the remediation of a game board, the combination of challenge/skill balance, uncontradictory demands, and detailed feedback makes the Farm Field Mat an environment where players can immerse into a Flow experience. This sense of flow is tightly connected to Eichner’s and Murray’s definition of agency. Also, by defining the boundaries of the narrative’s space, the mat helps players accomplish agency

by mastering narrative. Furthermore, the mat creates a collaborative environment that can expand agency by mastering choice. Players work in groups, and each might feel that they contribute to the groups as a whole. Finally, the Farm Field Mat evokes agency supporting mastering action and space as the robot performs programming action to explore the fictional farm's surroundings.

Zimmerman (2004) defines play as the free space of movement in a more rigid structure. According to Rochat (2013), play is connected to the need to explore our existence limits: our strength, courage, adversity, destiny, production, and agency. Play is the expression of an irresistible need to test the limits of our body in action, our existential choices and social roles in pretending and acting, our physical and intellectual capacities in competing, the limits of our survivability in risk-taking (Rochat, 2013).

Therefore, the Farm Field Mat is a designed object that is the center of a structured environment, constructed around a free play narrative space that, through its playful features, can generate a state of flow and agency for the players of robotics educational games. Thus, fun and flow support immersion and concentration that might lead to complete feasible and concrete outcomes. The combination of fun, concentration, and accomplishment make the Farm Field Mat a simple and, at the same time, powerful educational tool to everyone willing to try.

Further studies are being conducted considering user experience, discourse analysis, embodied interaction, and the Willing Suspension of Disbelief to expand the comprehension of how these design objects can influence, encourage, and motivate its users.

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Part III
Arts



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Identity in death: Communication and reflection through funerary art of the New Kingdom and revolutionary Egypt

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ABSTRACT: We remember the deceased through images or of items that remind us of them. They are remembered as we uniquely remember them. Being remembered and how we are remembered questions our memory, humanity, the importance of our accomplishments or lack thereof, but most importantly, our identity. It reaffirms our need to be seen authentically, wholly. We carry in ourselves a comprehension that the world sees our identity in fragments; there could be endless perceptions of who we are based on our experiences and interactions with others.

Art has been the connection between the past and the present as we continue to learn from the first and understand the cultures and people associated with it. However, funerary art has shown both idealized perceptions of individuals and hidden truths to who they were. Funerary art has allowed individuals to express their authentic identities either individually or collectively throughout history.

This text expands the concept of funerary art as one's true outward expression and interpretation of oneself rather than a means to an end, including the use of funerary art means of communication between the living and dead, perceived or actual, and the memory it evokes. This paper will provide such examples in Ancient Egyptian funerary art and contemporary from a western artistic perspective.

Keywords: Identity in death, New Kingdom Egypt, Funerary art, Art as memory, Art as communication

1 INTRODUCTION

The ancient Egyptians, in the New Kingdom, like those of their ancestors in the Old and Middle Kingdoms, had artistic ways of documenting life as it was and exaggerating it. Today, we are familiar with the exaggeration of life through digital media. While the ancient Egyptians did not have a digital era, they certainly had creative methods to diffuse ideologies and identities.

Pharaohs would build new temples, or create greater edifices through mortuary expansion, more beautiful structures as devotional signs to their god(s) of choice with considerable thought of aesthetics (Frankfort, 1969). Belief and religion were very much part of their individual and collective identities, reflected in their reign. They often ruled with the 'power of the gods', as they were believed to be the divine connection between the gods, as divine beings themselves (Frankfort, 1969). This connection to the gods, and organized religion in general, as it formed their identities, found themselves through imagery. Their beliefs were held, retold, and commemorated through depictions of them communicating and interacting with the gods, especially in temples they constructed to honor them

(Frankfort, 1969). This connection to a religious identity was common, as religion and politics were not distinct, meaning as one identified with a deity and its cult, ultimately, they belonged to a 'party' with a specific agenda (Onstine, 2010).

Religion was life; it defined individuals and their families. Connection to religion was a distinguishing factor of class as well. It was not possible to escape the association to religion even in death (Onstine, 2010). This would have made living an unconventional life inconvenient and uncomfortable. "Even in elite arenas in ancient Egypt, it was thought that homosexual men or homosexual tendencies with men, were not unheard of and possibly talked about openly" (Cooney, 2014, p. 92-93). On the contrary, they were sure to do all they could to ensure clear imagery and "accurate" depictions to ensure a smooth transition into the afterlife, after, of course, finding their way (Baines, Lacovara, 2002). The living world was merely a stepping stone to eternal life.

In most modern religions, no specific images must be etched into our coffins or gravestones to ensure our safety and transition into the afterlife, but they do follow many of the same traditions, especially in Christianity and Islam sees (Simpson,

1989). Religion still plays an important role in modern society's identity, as well as its funerary art.

2 DOCUMENTING IDENTITY THROUGH VISUAL FUNERARY ART

2.1 ...in Ancient Egypt

When we think of Ancient Egyptian funerary art, many think of the sarcophagi, the tombs, and pyramids. While these are some aspects of funerary art, it is quite intricate. The attention to detail was exquisite if one could afford it. This detailed work by some of the finest artisans showcased societal status or piety, while poorer or lower class individuals shared tombs and were afforded "shortcut" services and practices (Baines, Lacovara, 2002). Funerary art, in general, was a big business as it was not the end rather the vehicle forward into the afterlife (Saad, Mahmoud, 2017, p3). This was also a stage to exhibit one's status in life, not only in death. Materials and rich colors showed wealth, as they were of higher quality, and the artisan's craft further proved affluence. "The Egyptian civilization was highly religious, so Pharaonic art was meant to glorify the gods and the Pharaoh and secondly, to assert and preserve the values of life" (Saad, Mahmoud, 2017, p. 3).

These artforms were used to express oneself in their best light and as they were known to others, especially if they were well-known or elites of some kind in society (Baines, Lacovara, 2002). The proper names of the deceased, or the living preparing for death, were often carved into the sarcophagus or nesting sarcophagi, along with religious cult titles, showing favor to the gods and further expressing one aspect of their identity, an important one – cult affiliation (Baines, Lacovara, 2002).

Living with a religious identity, and being a religious or pious person, did not reflect one's sexual or gender identity as many gods were depicted as androgynous, hermaphrodites, or even bi-sexual (in modern terminology). It is disputed whether gender nonconformity was prevalent in this period, but it certainly would not have been accepted according to Egyptologist Christine Onstine (2010), though this is disputed in the field. Egyptologists widely believed that while there were likely homosexual and non-binary relationships, the evidence is somewhat ambiguous and rare. However, people were not believed to be explicitly identified as such (with specific terminology) or stigmatized because of it (Meltzer, 2006).

Depiction of death and the afterlife were clear and forward. They were displayed in temples and tombs as a reminder of death, ancestry, tradition, and culture (Yilmaz, 2010). One had to use the creativity of one's own mind to both look forward to and prepare for the afterlife. It was a glaring reminder of where

one came from and where they would go. Because of this constant reminder that life was merely the road to the afterlife and death was not the final destination, people found beauty in these depictions; they felt emboldened to depict themselves advantageously. These representations were promises of a future in a better place, free to be oneself with plentiful, if not lavish, necessities (Frankfort, 1969). The closer one was to the gods, the likelier one achieved the afterlife, though it was not guaranteed. Ancient Egyptian religion was specific that the living deeds needed to be weighed to be permitted into the afterlife (Baines, Lacovara, 2002). Keeping a religious connection in one's identity was safe but also necessary. It meant devotion, even if one could not live up to society's societal and religious norms, but further displayed one's good deeds in service of the gods (Frankfort, 1969). Funerary art was the ultimate expression of oneself, and while to it was attached a long history of tradition, there was room for self-expression, but the pharaohs were privy to this more than the layperson (Baines, Lacovara, 2002).

Hatshepsut was a rare and beautiful example of using her living identity to change and influence her legacy and funerary art. She is infamous as being one of the few female kings in ancient Egypt taking over the throne of her stepson (as a child and young adult) as co-regent then king, and continued to rule in his place even after his coming of age for twenty years (Cooney, 2014; Alm, 2019, p. 6). Apart from this very disputed power move, "Hatshepsut maintained, concreted, and even expanded her connections throughout Egypt, creating jobs by way of temple renovations and construction, pitting armies against one another but not pushing too hard as to keep piety. She spread her influence to generals, priests, and treasurers" (Cooney, 2014, p. 89).

Her identity was morphing as she gained years in power. She began to feel empowered by her position and rightful heir as "king," daughter of Thutmose I.

'One of the first changes we see on her monuments, just a few years before she formally became king, was her decision to drop the title of God's Wife of Amen and take up the title of King's Eldest Daughter.' This is seen by many Egyptologists as 'a shift that moved her from a queen's role to an heir's' (Cooney, 2014, p. 102).

This was a major shift from her religious identity to an ancestral one. Her new name and likeness were etched into constructs across Egypt, proving her first transition in life, followed by several others.

She was depicted more and more masculine in her legacy art. At the time, it was questionable as it was blatant cross-dressing and performance of gender

role reversal such as on a block from Karnak temple depicting her, “wearing the gown of a queen on her body but the crown of a king upon her head. The *atef* crown – a fabulous and extravagant amalgamation of ram’s horns and tall double plumes—was depicted atop her short masculine wig.” (Cooney, 2014, p. 102-103). “With this block, Hatshepsut had finally decided to document her changing powers in pictorial—not just textual—form” (Cooney, 2014, p. 103).

She created new images and altered existing ones to exhibit these identity transformations. She replaced her female name publicly to the masculine, “Maatkare (The Soul of Re Is Truth)” (Cooney, 2014, p. 103), a name given to *kings*, not queens. However, finally, Egyptologist Katherine Cooney writes in her book *The Woman Who Would Be King*,

‘Her birth name was formally changed from ‘Hatshepsut’ to her king’s name ‘Khenemetamen Hatshepsut’ ... roughly translates to ‘Hatshepsut, United with Amen’ meaning that her spirit was now coalesced with that of the god Amen through divine communion.’

Hatshepsut was now a transgender man in a country and time without the ability to accurately express it other than with imagery, as the language did not exist to accommodate such changes. Depictions were again altered, where she was depicted “wearing a false beard, and she assumed the kingly poses, trampling foes” (Alm, 2019, p. 5) and using both the kilt and crown of the king.

Her identity in death was controversial, as many attempts after her death were made to erase her name and identity from her constructs, legacy art, and funerary art, though she was sure to make it difficult to accomplish with the sheer volume. These efforts were mostly attributed to her stepson Thutmose III as “a rejection of the idea of a female king” (Alm 2019, p. 6).

These are only some of her accomplishments in transforming her identity in life and death to accommodate her reality and having the last word and expression of her identity in death. She was the agent in her identity expression through her funerary and legacy art. King Hatshepsut solidified her kingship and its validity through her artistic constructs and ‘becoming’ emotionally and mentally a king. She constructed her identity through reflection, using tradition and art as the vehicle to achieve this understanding for others and as an outward expression of how she truly identified.

2.2 ...in modern society

Culture and arts (visual arts included) embody our values, and define the basis of the good

mental health of a society. These practices build an individual and collective sense of identity and citizenship. It is a kind of thinking/making which enables people to form and develop their identity (Saad, Mahmoud, 2017, p. 1).

We take from the past lessons, power, influence, and recognition of ourselves in the form of ancestry and cultural identity. We learn from the past as it helps shape who we become through inherited beliefs (Johnson, Nyhof, 2006). In this case, this sense of collective identity, or cultural identity, allows us to use tradition as a pathway to our identity, rejecting or accepting aspects of it as we grow in our own personal identities (Saad, Mahmoud, 2017, p. 2).

We face the burdens of tradition and religion in modern society, like the ancient Egyptians, but today we are spared some ability to accept or reject those traditions. Though modern Egyptian Christians and Muslims do not necessarily have this flexibility because of both religious and political restrictions, they have found ways to make change within these confines, often presented in the form of non-traditional behavior or inaction to customs and tradition this according to personal contacts.

As the tradition of religion is inherited from one generation to the next, liken to that in Ancient Egypt (Baines, Lacovara, 2002), contemporary societies use art distinctly, though not entirely. New methods from ancient traditions are used to express identity in death. In this, referring to the memorial art of an individual, martyr, or victim of violence. Ancient and modern cultures used art to express the deceased’s identity, further explained by graffiti, memorial locations, and varying plastic art forms later in this paper.

In their 2011 revolution, modern Egypt used this identity expression that became a complex artform and a memorialization of martyrs and victims, a tool for activism and protest of the government and its use of the military against its people (Yılmaz, 2010). Further West, the Americans are experiencing their own reform uprising for change in the police force in the Black Lives Matter movement, using Egyptian Revolution tactics and art forms to convey similar messages. The use of art in this way allows the imagery to become a “mental representation of a word or a subject [matter]” (Yılmaz, 2010). These art forms and monuments have the purpose of reflection and memory, “...monuments and memorials as real mnemonic devices, which are erected ‘to stir one’s memory,’” (Yılmaz, 2010). And while we construct, possess, and conserve the identities of individuals in memorials, the meaning behind them may change with the progression or digression of the situation of movement. This is evident throughout history cross-culturally (Yılmaz, 2010). As seen in both Revolutionary Egypt (c. 2013) and America

currently, memorial art can be transformed where the images of victims or martyrs were created originally to remember or memorialize but have become the faces of protest. The images ignite passion and awareness for a greater cause for change.

These art forms began as ways to preserve the identities of the deceased, progressing with time to serve a variety of functions in the progression of memory of a society, either collective or individual, enduring or ephemeral memory. As Ahenk Yilmaz (2010) explains, “it becomes difficult to comprehend diverse examples of memorials via a single conceptual framework,” thus the importance of varied and abundant forms of both memorial and funerary art.

3 FUNERARY ART AS COMMUNICATION

As previously mentioned, funerary art in ancient Egypt was a means to fulfill one’s destiny in the afterlife, the preparation taking years to complete. Egyptians, with the means to do so, chose the best artisans to complete their sarcophagi, often made of wood or stone. This process was expensive, of course, and most Egyptians aspired to the best they could afford as these were the vessels that would protect their bodies in this realm as they lived on in the next. The texts and images that wrapped these sarcophagi told of the individual: their names, their titles, cults, etc. (Baines, Lacovara, 2002). The imagery was potent and distinct from what we know today as they gave instructions, along with some things we are familiar with today – prayers and blessings, chants and phrases or verses.

These sarcophagi acted as vessels for many purposes; one of those was communication. They were supposed to act as the first contact with the afterlife, speaking with the guardians of the afterlife (Baines, Lacovara, 2002). Further, “[t]he tomb was a testament to the deceased, his life history, and his achievements” (Meskell, 2008). The sarcophagi and tombs worked as the liaison between the deceased and the living as a form of discourse. The living would speak the names of the dead, activate spells and charms to ensure the deceased was being replenished in the otherworld.

Today, coffins or urns are not used as the primary way of communication to the God(s) believed in today. Believers today, like ancient people, use prayers and chants to usher people onward, similarly to those of the ancient world. Praying for their souls as they pass on. They use images and other art forms from their religion such as crosses or images of God, Jesus, Mary, or other saints in Christian sects while designs and patterns are used in Islam, even calligraphy or script is used widely across many religions, but specifically in Islam (Saad, Mahmoud, 2017, p. 3) and Asian cultures. These may be present in the

memorial, funeral, procession, or even at the graves. There is memory in these materials and art forms. There is intentional thought as to why and how they are used. “Symbols are understood [here] as signs embodying multiple meanings, carrying a face and an underlying sentimental value that gives the symbol its stability and effectiveness” (Awad, 2017). These art forms speak to the living as they did for the dead.

If living individuals plan their funeral, they think about how they want to be remembered, down to the images and flowers displayed. They include reflections of their identities in their choices of music and or funeral proceedings. If an individual is not granted this opportunity, their survivors piece together the deceased’s identity to present one accurate from their perspectives. While this identity is fragmented and perhaps less than precise, it reflects great thought and connection to the deceased individual. One must reflect on their relationship with the deceased, how they might help commemorate them, and best express that to others, adding or projecting their own identity to the deceased through their relationship. This is an art in and of itself as a greater, more complex identity. It is formed through this mixed composition of memory and thus shines in all the materials, images, and details of one’s death. We practice the use of these funerary materials as a means to convey our messages to the dead and survivors.

4 CONCLUSION

Funerary art has proven to be the conductor express a lasting identity, as the importance of art is not lost, not even on the dead. However, we cultivate our identities through processing our experiences, engaging with the culture we are born into and live in, as well as the people we call family (Wilshusen, 2020). Growing in the understanding of these aspects promotes genuine introspection and emotional development throughout one’s life concerning identity and belief – one in that they create a “distinctive metaphysical theory of self” (Johnson, Nyhof, 2006). Understanding ourselves emotionally allows us to understand our identities more thoroughly, like King Hatshepsut in her identity journey and revelation. Not only did she know what she wanted in life, but she reflected on her family, heritage, and whom she had become as a woman and further as a(n) (assumed) transgender king. Today we can manage our legacies through the mindful practice of who we are and how we want to be remembered, for not just the good and bad that we create, rather the person we conceive in our minds. We can further develop art that reflects

those aspects in us to truly leave a legacy from our perspectives, project our true identities, and live genuinely, so survivors get it right.

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Did the Ancient Greeks perceive the color ‘blue’? An interdisciplinary approach

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ABSTRACT: Were the Ancient Greeks able to see the color ‘blue’? This question is still posed, and its answer has been a matter of much debate. The issue raised was based on Pliny’s list of the palette used by Ancient Greek painters that did not include a ‘blue’ pigment, coupled with Homer’s poems whose interpretation did not seem to contain a term to designate ‘blue.’ This paper addresses the reasons underlying such arguments and contributes to the discussion by pointing out why Ancient Greeks were able to see blue. For such purpose, the adopted approach brings together data from disciplines that range Greek philosophy on theories of color and vision-bridging them to later achievements when necessary-, color terminology, and the archaeological hypothesis that stems from the application of color to art and architecture in Ancient Greece.

Keywords: Ancient Greece, Blue, Color theory, Color terminology



Figure 1. Ancient Greece polychromy. Durm, Josef Wilhelm, 1837-1919 *Die Baukunst der Griechen*, published 1909. Public image.

1 PLINY’S LIST OF COLOR PALETTE

Quattuor coloribus solis immortalia illis opera fecere-ex albis Melino, e siliciis Attico, ex Rubris Sinopide Pontica, ex nigris atramentum- Apelles, Aetion, Melanthius, Nicomachus, clarissimi pictores, cum tabulae eorum singulae oppidorum venirent opibus. (Pliny, the Elder)

Pliny’s quote maintains that Apelles, Aetion, Melanthius, and Nicomachus painted immortal works with only four colors: Milos for the white, Attic sil for the yellow, Pontic sinopis for the red, and atramentum for the black. In the detailed records of his *Natural History*, which do not consist only of color names but also contain data on the origin of the pigments and their chemical ingredients, Pliny lists the color palette of Ancient Greece, giving rise to great misunderstandings about the use of color in pictorial manifestations of this historical era.

In the palette referred to by Pliny, black is considered complementary to red and yellow; however, without blue, it is not possible to produce purple hues, which result from mixtures with reds; or green hues, which result from the mixture of blue and yellow. (Bruno, 1977, p. 53). Hence, if blue were not considered, then the color palette of 4 would produce only yellows, reds, oranges, and their mixtures with white and black in varying scales.

The inexistence of either blue or green as a primary color compromises the possibility of generating an

ample palette, and it originated controversial stances regarding color terminology and questioned the capacity of the Ancient Greeks to see blue.

2 VISIBILITY AND COLOR THEORIES

In Aristotelian interpretation, colors are a modification of white light, pure and homogeneous, which results from the addition of shadow, and color cannot be seen without light because the formal essence of color consists in the action of putting in motion the diaphanous (Aristotle, 1907, book II 419a10), the light being the entelechy of the diaphanous. For Aristotle, color has the power to qualitatively alter the transparent medium that stands between the object and the observer. For this reason, the presence of light - the quality or state of the transparent medium - is a necessary condition for the manifestation of colors, which are what cover the visible surface of bodies.

The places of the observed and the observer have, in fact, deserved much philosophical speculation, in which the senses are involved in the apprehension of “reality.” Two thousand years past the Platonic division between the real existence, attainable by the perceptual apparatus, and the ideal existence, perceptible by the intellect, Descartes reiterates the distinction between the imagination and the mental world of the *res cogitans* and the objective world of the *res extensa*. Other philosophers, including Schopenhauer and Whitehead, underline this cleavage, i.e., the things we know that are filtered by our senses and processed by the mind, while never having access to the experience of the thing itself, according to Kant’s *Ding an sich*. Such complementarity also exists in the nature of light, known since Einstein, in 1905, to exist in the wave and particle form that comes in “quanta,” the photons that contain energy proportional to frequency. This duality, confirmed by Niels Bohr, was expanded beyond physics by his disciple John Wheeler, who considers that the realm of consciousness and the outer world of the senses constitute - like waves and particles - a complementary pair. However, no characteristic of visible bodies can be compared to color with regard to the contingency of their perception and the degree of variability resulting from the context in which it is inserted.

Greek philosophers had different opinions about light and colors. Leucippus, Democritus, and Epicurus believed that colors were the light itself after being modified by the texture of surfaces. Epicurus considered that colors were produced by various figures of the invisible parts called “atoms.” Democritus and Empedocles held that light-or fire, in his terms, made its way through the air and entered the organ by the pores. Sight was explained as an emanation or films that fly off from visible things, which emanations retain the form of things. These images are then reflected in the eye and diffused through the body, and vision would be the result of this process

Plato (1888) argued that color resides in the spirit of each human being, given the difference in sensation that it produces from individual to individual. In *Timaeus*, he states that colors are a kind of fire that various bodies emit formed by proportionate parts in order to produce a sensation, and when that fire reaches the moisture of the eye and is mingled with it produces the following colors:

a blood-like colour by the mixture of fire with the gleam of the moisture, and the name we give it is red. Bright combined with red and white makes yellow. In what proportion they are mingled, it were not reasonable to say, even if we knew; for there is neither any inevitable law nor any probable account thereof which we might properly declare. Red mingled with black and white becomes purple, which turns to dark violet when these ingredients are more burnt and a greater quantity of black is added. Chestnut arises from the mixture of yellow and grey, and grey from white and black : pale buff is from white mixed with yellow. When bright meets white and is steeped in intense black, a deep blue colour is the result; and deep blue mingled with white produces pale blue; and chestnut with black makes green. (Plato, 1888, 68C-69A)

Contrary to the theory mentioned above that a visual fire emitted by the eyes is responsible for vision, James Clerk Maxwell’s investigation demonstrated that there is electromagnetic radiation of different wavelengths and that the vision of color results from its perception. Thus, light is considered an electromagnetic vibration field whose frequencies determine the color and progressively increase from the red end to the blue end of the visible spectrum. Two centuries earlier, Newton had demonstrated with the *experimentum crucis*, conducted in 1665/1666, that light is a heterogeneous mixture of rays with different refringences. His theory is still accepted today. In fact, white light can be decomposed into all the colors of the spectrum or recomposed from them: the rays that deviate more from their trajectory, the most refringent are violet, and the least refringent are red, the rest of the spectrum being situated between these two extremes. Rays that a second prism cannot separate are the seven simple colors identified to establish a consonance with the musical harmony of the diatonic scale.

3 COLOR THEORIES

The search for the primordial elements of nature goes back to the first Greek philosophers: for Tales of Miletus, water; for Heraclitus, fire; for Empedocles, the four elements of matter corresponding to the four essences of reality: water, fire, air, and earth.

The four elements theory was shared by Democritus, who went on to align the primary colors with the properties of poetry and metaphysics, not with the behavior of pigments.

Likewise, Pre-socratic Greek philosophers associated colors with qualities of surface such as smoothness, roughness, or otherwise, temperature, but not with pigments:

What is smooth is white; since what neither is rough nor casts shadows nor is hard to penetrate, – all such substances are brilliant (...) for the substance here would be shadowless, 'gleaming', and with straight passages. As to black, it is composed of "figures the very opposite to those of white, – figures rougher, irregular, and differing from one another. For these cast shadows, and the passages amongst them are not straight. Evidence that redness is derived from such figures (heat) is the fact that we redden as we become heated and green is composed of both, the solid and the void, – the hue varying with the position of these constituents. Each of these colors is 'the purer the less the admixture of other figures. From these basic colours all other are produced, since "the other colours are derived from these mixtures" (Stratton, 1917, pp.133-135).

Aristotle, perhaps influenced by the concept of the Platonic "idea," considered the existence of a quintessence, which, being constant, would link the four elements, and, as the celestial constellations seemed immutable in their trajectories, proposed that it be considered as the subject of which the stars are constituted.

According to a tradition dating to Anaximenes (ca. 545 BC), Aristotle (2000), in one of his natural history treatises, *Parva Naturalia*, believed that colors resulted from the mixture of light (white) and shade (darkness) in various proportions: red, the purest color, was a mixture of light and a small amount of shade; by increasing the amount of shade, green and violet (the darkest) were obtained. When combined, these three primary colors – green, violet, and red – would then originate all the other colors. Still, in *Parva Naturalia*, he presents seven species of colors equal to the number of flavors: yellow, purple, bright red, green, and blue, between white and black, the rest being colors composed from these.

The primary or basic color category is important, as it includes colors capable of originating others and cannot be produced through any mixture of colors. There is a difference in the mixtures between color-pigments and light pigments, and although the mixture of colors that we are dealing with in the context of Antiquity are pigment colors, it seems relevant to clarify this distinction for it is often the source of misunderstandings.

In 1601, Guido Antonio Scarmiglioni proposed the existence of five simple colors, from which all others were obtained. At that time, he could only be considering color-pigment mixtures: However, in 1855, Maxwell showed that just three types of light were needed to create almost any color: red-orange, blue-violet, and green: in mixing light rays of different wavelengths, color is synthesized through the addition of several components, which together stimulate the retina to create a particular color sensation in an additive mixture. Colors that are obtained from mixtures between primaries are called secondary colors. Mixtures of color light are additive and differ from mixtures of color pigments, which are subtractive. Newton systematized the spectrum by separating the brightest or "simple" colors from the "composite" or intermediate colors: there are seven simple or primary colors when effectively the spectrum is a continuous gradation of colors that mix. The naming of colors in this continuum can be done according to a variety of chromatic principles.

4 THE LINGUISTIC QUESTION

Our ability to discriminate colors is not limited to the terms we use to designate them. In fact, most of the colors that we distinguish do not have any name. Despite the numerous hues, values, and degrees of saturation, the basic color vocabulary in any language rarely exceeds thirty designations. The understanding of the use of color in Antiquity can be obscured by interpreting the writings on color. Another difficulty is added, which arises because several names can be applied to the same color in different contexts and circumstances, aligned with cultural traditions.

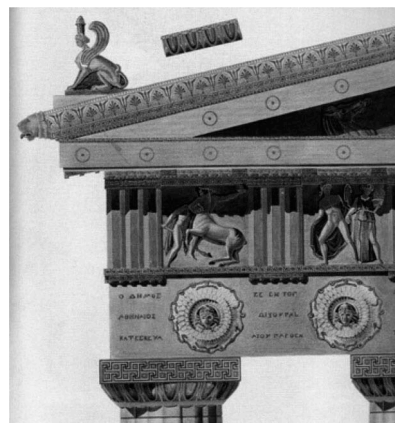


Figure 2. Detail of the Parthenon, Acropolis, Athens. Painted by Gottfried Semper, 1836. Public image.

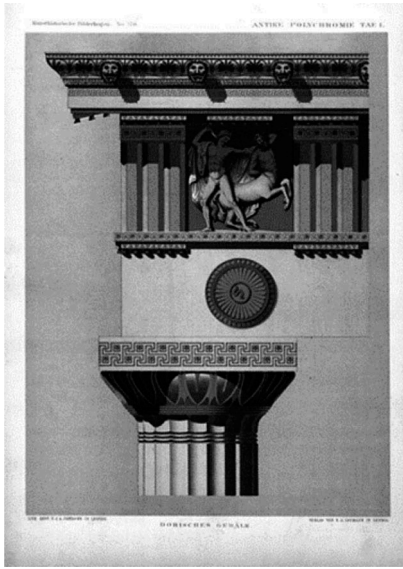


Figure 3. Ancient Greece polychromy. Unknown author, *Kunsthistorische Bilderbogen*, E. A. Seemann Verlag, Leipzig, 1883.

Going back to Ancient Greek color theories within the context of the present study and its misunderstandings, the notion of ‘4 basic colors’ was first brought forward in *De Sensibilis* by Theophrastus (c.371-c.287 BC), almost a contemporary writer to the painters named by Pliny: *Apelles, Action, Melanthius, Nicomachus*. In *De Sensibilis*, there are references to the colors Democritus considered ‘simple’ – white, black, red, and green (*chloros*). Already here, the meaning of *chloros* is essential for determining color since it was not always used as a chromatic term designating ‘green.’ Sometimes, it conveyed ideas of ‘cool,’ ‘fresh,’ ‘wet,’ ‘clear’ and ‘yellowish-green.’ The meaning of *chloros* attached to ‘yellow’ seems to have been given by Hippocrates (ca. 460 BC); and *chlorotes* signified both ‘greenness’ and ‘yellowness.’

Until the fifteenth century, the term *sinople* used by Pliny, originated by the earth-red pigment of Sinope in the Black Sea, could mean red or green. Other examples include the term *kýanos*, a blue color that can refer to the dark green color of the sea, although green can also be called *chloros*, ‘yellowish-green,’ and *prásinos*, ‘tender green like pear.’ The Latin *flavus* (‘yellow’; ‘laurel’) is the etymon of *bleu*, *blue*, and *blau* (Bailey, 1925).

For the Greeks, colors were placed in a scale between the light and dark, being discriminated as much by the hue as by the brightness or luster; hence perhaps the red - to which the terms such as *phoînix*, ‘purple red’ were associated; ‘Scarlet’ and *porphýr-ous* ‘dark in color’; ‘Purple in color’ - when darkened, it could acquire a more expressive quality than hue. This reason would explain the commented

characterization of the sea associated with dark wine - *oínopos* - in Homer’s *Iliad* and *Odyssey*. In Classical Greek, *οἶνον/οἶνοπος* means in Homer, “glimmering, gleaming, epithet of the sea and of cattle, dark red” (Autenrieth, 1995).¹

Is ‘*melas*’ the foundation for the misunderstanding? As seen above, the doctrine of the four primary or basic colors is attributed to Theophrastus, Democritus, and their precursor Empedocles and is characteristic of pre-Socratic thought, in which the concept of four basic or primary colors correspond to the four elements of matter. However, although the symbolism of color varied between different eras, the perception of color and the behavior of the chromatic mixtures in the palette were essentially the same.

The Greeks would then have to have either a black pigment capable of appearing blue or a blue described as black, as without the use of blue the whole concept of the four colors would have been impossible unless they had a pigment capable of producing blues, which of course they had. Platnauer (1921)² also recognizes that the Greek term used to designate black, the most translated into Latin and other languages, may not denote a black pigment in most contexts in which it is used. Indeed, the word *mélas* (μέλας), which designates black, does not always denote dark in an absolute sense, but any color that appears darker than others nearby or that can darken.

The poetic meaning of *μέλας* is not literally that of ‘black.’ *μέλας, μέλαινα, μέλαν*: [...] dark (opp. *λευκός*); of the sea in commotion, when ripples ruffle surface, so that it does not reflect light, but appears dark, *δ* 359; dark (painted) ships, *θ*34; land, spring (on account of depth); pitch-dark, *Δ*277; *μέλαν*, as ntr. subst. the dark, i.e., bark of oak, *δ*ρῦός. *Metaph.* dark, gloomy, of death, etc. (Autenrieth, 1995). Homer and other poets use the term to characterize dark blood, the sea, or clouds, which can gain darker reflections and thus become “darkened” by changing their hue. In some cases, the difference between “black” and “blue” will not have involved pigment differences.

In his *Natural History*, Pliny speaks of a pigment that looks black but which, when diluted, turns into a wonderful purple-blue: “*cum cernatur nigrum at in diluendo mixturam purpurae caeruleique mirabilem redit*” (Pliny, 1938, XXXV, 46). Gombrich (1993, 59) complained about the Ancient Greeks that covered their marble with color in the following statement “color and texture of fine marble is

1. On the designation of colors in Ancient Greece and in Homer and Hesiod: H. Dürbeck, *Zur Charakteristik der griechischen Farbenzeichnungen*, 1977; E. Handschur, *Die Farb- und Glanzwörter bei Homer und Hesiod*, 1970).

2. For the use of blue in painting and architecture: J. H. Lambert, *Beschreibung einer mit Calauschem Wachs ausgemalten Farbenpyramide*, Augsburg, 1772; J.W. von Goethe, *Zur Farbenlehre. Historischer Teil*, ed. Kuhn (Leopoldina Ausgabe der Schriften zur Naturwissenschaft), 1957.

something so wonderful that we would never want to cover it of paint, but the Greeks painted even their temples with strong and contrasting colors, such as red and blue.”

The conclusions of Platnauer (1921) and Osborne (1961) on the inability of the Greeks to appreciate and discriminate colors are based on the interpretation of texts; however, color vision theories and philosophical accounts based on the organization of color do not dispense blue. Moreover, archaeological data allows us to confirm the use of the color blue, confirming that the Greeks painted statues in brilliant colors and also used pure and brilliant colors in architecture. Certainly, blue pigments are used in painting, sculpture, and architecture in Ancient Greece, which begs the logical conclusion: if blue was used, blue was perceived.

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“A thing of beauty is a joy forever”: A transdisciplinary reading on creativity

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ABSTRACT: Art and science, and emotion and reason, are two sides of a common discussion in academic circles and are frequently swapped out, one for the other. The discussion also includes the concepts of creativity and the beautiful. The concept of the sublime, which is closely linked to that of beauty, is also proposed here as part of the debate.

This paper aims to contribute to the reflection on how these concepts are interconnected in separate disciplines and how, at the same time, they are elements of interdisciplinary connection. And how, in reality, they are transdisciplinary concepts.

Keywords: Art and science, Reason and emotion, Creativity, Beauty, Sublime

1 INTRODUCTION

Many authors have advocated a much more holistic view of knowledge and, consequently, of education than that which exists today. Two of the aspects frequently brought up are specialization and the realm of reason-based activity. In the former, the appeal for inter and transdisciplinary study and research is increasingly being made. In the latter case, the appeal is for greater proximity between art and science. These two realities are, of course, interrelated and feed off each other.

As Doucet and Janssens (2011, p.2), there is currently a lack of relational and hybrid knowledge. Transdisciplinarity means, according to Nicolescu (2002), “to celebrate the transgression of disciplinary boundaries” (p. 1). Another idea, also proposed by Nicolescu, is that if, on the one hand, transdisciplinarity is fed by disciplinary research, on the other hand, disciplinary research is clarified by transdisciplinary knowledge (p. 45). Tanya Augsburg (2014, p. 233) explains the broad aims of transdisciplinarity: it presupposes an individual ethic, a desire to improve society and contribute to the common good. Alternatively, as Nicolescu (2002) states: transdisciplinarity means a “new vision of the world” (p. 39).

Two statements can be mentioned here as examples. While citing the Charter of Transdisciplinarity¹, Sue L.

T. McGregor (1994) states that “education must come to revalue the role of intuition, imagination, emotional sensibility, and body in the transmission and creation of knowledge.” In Parallax, Steven Holl (2006) uses the expression “thought-to-feeling bridge” to illustrate the now distant but still desired proximity between the different areas of knowledge. He argues:

Three hundred years ago scientific ideas, perceptual phenomena, and their aesthetic and mystical effects could be discussed together. For example, Johannes Kepler’s *Mysterium Cosmographicum* united art, science, and cosmology. Today, specialization segregates the fields; yawning gaps prohibit potential cross-fertilization. (p. 144)

For Holl, the model proposed by Kepler (1571-1630) emerges as a paradigm of the intelligence-sensibility connection and the unity of thought-free of specialization (p. 144). One can say that Holl makes an apologia for a 21st-century holistic approach.

In the context of these proposals, two concepts prove to be paradigmatic: creativity and beauty.

The link proposed here between creativity and beauty does not concern the aesthetic emotion provoked in those who contemplate the work (artistic or scientific). Nor is it about the aesthetic emotion that each one transposes to his or her work. In reality, the aesthetic emotion we are talking about refers to the presence of beauty, almost as an instrument of work, and its weight in decisions and the strength of one’s soul and, eventually, of the search for it. It is, in fact, about the encounter with beauty.

1. Adopted at the First World Congress of Transdisciplinarity, Convento da Arrábida, Portugal, November 2-6, 1994 and signed by Lima de Freitas (1927-1998), Edgar Morin (b.1921) and Basarab Nicolescu (b.1942).

2 CREATIVITY

In the opening pages of *Explaining Creativity*, R. Keith Sawyer (2012) begins by saying that it is particularly difficult to reach a consensus on what creativity is. In his words, “defining creativity may be one of the most difficult tasks facing the social sciences” (p. 7). And, according to him, there are two fundamental lines in the research on creativity: an individualist approach and a socio-cultural approach.

According to Sawyer (2012), painting, of all the creative domains, best fits in the Western cultural model of creativity. But the idea of the painter working alone, shut off from the outside world, and not taking into account any social conventions is, in reality, a fallacy. The truth is that both approaches – individualist and socio-cultural – are necessary for explaining painting (p. 297).

2.1 *The Romantic stereotype*

It was in the Romantic era that creativity emerged as “a pure expression of inner inspiration, an isolated genius, unconstrained by reason and convention,” and the associated myth of “mental illness” was shaped (Sawyer, 2012, p. 175). Sawyer (2012) states:

The Romantics believed that creativity required a regression to a state of consciousness characterized by emotion and instinct, a fusion between self and world, and freedom from rationality and convention. (p. 24)

A “temporary escape from the conscious ego and a liberation of instinct and emotion” was needed to create (p. 24). As examples thereof, Sawyer quotes Wordsworth (1770-1850), who speaks of “the spontaneous overflow of powerful feelings” (as cited in Sawyer, 2012, p.24); Percy Shelley (1799-1822), who uses the idea of “unpremeditated art” (as cited in Sawyer, 2012, p. 24); and also refers to Coleridge (1772-1834) as an example of a Romantic-era poet who knew he was supposed to conceive his poems “in bursts of spontaneity” while experiencing “mental anguish and bouts of madness” (p. 301).

The Romantics saw the artist as a child; creativity depended upon spontaneous, emotional expression, without any ties to rational judgment (Sawyer, 2012, p. 168); imagination was paramount over mastery traditions of the past (Sawyer, 2012, p.24).

The myth created by the Romantics carried so much weight in Western culture that even psychoanalysts thought there was a connection between schizophrenia and creativity. According to Sass (as cited in Sawyer, 2012, p. 168), schizophrenia provided a regression to a primitive Dionysian state, to infantile forms of irrationality.

And it was indeed within Romanticism that the contemporary idea of creativity emerged. The poet or

the artist now had a privileged status and no longer a mere craftsman (p. 24). In a way, it is paradoxical, in the sense that the more they tried to escape reason (in doing so, losing the status of craftspeople), the more they came closer to the status of men of science.

While emotionality and madness, which contributed to creativity, were characteristics of the Romantic cultural period, by contrast, rationalist conceptions of creativity emphasize conscious deliberation and reasoning. This was the case for modernism and post-modernism in 20th-century art (Sawyer, 2012, p.175).

But the 1950s can be considered a neo-Romantic period (Sawyer, 2012, p. 25). By the 1960s, the New York art scene had become fascinated with the process – rather than the end product – a path the New York action painters had set out on in the preceding decade (Sawyer, 2012, p. 301). This valorization of process and spontaneity has affected our conceptions of creativity. But, of course, Pollock (1912-56) planned his paintings and knew art was not possible without norms and conventions. “The painting process is conscious, intentional, planned hard work, sprinkled with frequent mini-insights, just like the creative process in any other domain” (p. 305). However, the contemporary arts from the 1960s onwards epitomized a return to rationalism. Post-modern art and theory can be regarded, in this sense, as anti-Romantic, in that they reject the ideals of authenticity, spontaneity, and personal engagement (Sawyer, 2012, p. 25). Artists such as Juan Miró (1893-1983) and Paula Rego (b.1935), to name just two, have attested to their huge work discipline (Solé, 2018) (Willing, 2016).

As Sawyer (2021, p. 24) explains, these ideas relating creativity with altered or heightened states of consciousness were not totally new; they were, in fact, thousands of years old. As he exemplifies, in ancient Greece, creativity was associated with demonic possession, and Plato (428/427-348/347BCE) used the term *enthousiasmos*² [2] (“divine madness”) to describe it. Moreover, that was the reason why Plato was against the so-called musical revolution of the 5th century BC, for he thought music an object of reason, not an object of the senses, and refused music for the delight of the ear. (See Burkholder, Grout, and Palisca, 2014)

According to Sawyer (2012), the fact that Romanticist ideas related to creativity still live on may explain why ordinary people do not like modern art (p. 25). And one could add that that is why they don’t see creativity in science as

2. According to the *Cambridge English Dictionary* the definition of the word enthusiasm is as follows: a feeling of energetic interest in a particular subject or activity and an eagerness to be involved in it; a subject or activity that interests you very much. (“enthusiasm”, in *Cambridge English Dictionary* [online], <https://dictionary.cambridge.org/dictionary/english/enthusiasm> [accessed on 20/04/2021].)

well.³ Sawyer (2012) explains (after Kasof) that if one wants to be creative or perceived as creative in the West, one must behave in an unconventional, flexible, and open to experience way. For that is the Western cultural conception of creative people (p. 301).

The mindset that is the opposite of Romanticism is probably what Pelletier and Pérez-Gómez (1994) describe as "the glorification of scientific reason during the eighteenth century," which is related to "the reduction of the fine arts to a morally inconsequential aesthetic formalism" which, in turn, "is not an absolute paradigm but rather a historical event" (p. 4).

2.2 *What neuroscience says about creativity*

If the ideas that the artist is more creative than the scientist and that their brains work differently are still current in common sense, this does not seem to be what many academics think at present.

Today, most neuroscientists believe that, as far as creativity is concerned, the brain's hemispheres work together – each contributing a different strength (Sawyer, 2012, p. 160). For there is no evidence of the earlier idea of a specific location in the brain where creativity took place or even that it was in the right hemisphere (not to mention the famous two types of personality depending on the dominant side of the brain). Actually, creativity occurs in different parts of the brain depending on the area of creativity in question. It also varies depending on the individual's abilities and whether he or she is trained or not. Creativity involves the whole brain (p. 163).

Andreasen and Ramchandran (2012) state that, while "there is a general tendency to assume that creativity is more associated with the arts than the sciences" (p. 50), the brains of both groups of individuals function in a similar way (p. 49).

Margaret A. Boden (1996) synthesizes: "Creativity is a puzzle, a paradox, some say a mystery" (p. 75). And she, too, places artists and scientists alongside each other: "Inventors, scientists, and artists rarely know how their original ideas arise" (p. 75). She goes on to point out that the "unpredictability of creativity seems to outlaw any systematic explanation, whether scientific or historical" (p. 75).

3 BEAUTY

More emphasis will be placed on beauty in science, and mathematics in particular, since, in the present

context, the discussion of beauty in art becomes redundant since it is its natural territory.

As in other situations, architecture as a hinge discipline (between art and science) can raise a good testimony in inter and transdisciplinary studies. We can, therefore, use here the testimony of an architect on considerations about beauty. In his text titled, not by chance, "Build Beautifully and Practically! Stop Cold Functionality!"⁴ (1930), Mies van der Rohe (1886-1969) states: "It is a natural, human characteristic to consider not only the purposeful but also to reach out and love beauty." And raises the question:

And what finally is beauty? Certainly nothing that can be calculated or measured. It is always something imponderable, something that lies in between things. (1930 as cited in Neumeier, 1991, p. 307).

3.1 *Attractiveness and beauty*

The feeling of beauty, while also subjective, is, and particularly in the context discussed here, quite different from that of attractiveness.

Don Norman (2004) clearly distinguishes between attractiveness and beauty: the former is a visceral-level phenomenon, while the latter is a reflective one that emerges from conscious reflection and experience, influenced by knowledge, learning, and culture (p. 87). Furthermore, unattractiveness can give pleasure and be beautiful (p. 87). In the same line of thought, Roger Scruton (1979) distinguishes between sensuous pleasures and aesthetic pleasures (or, as he states, those that have "traditionally been described as" aesthetic). Aesthetic pleasure depends upon and is affected by thought processes (unlike the pleasures of the senses) (pp. 71-72). This argument leads one to another reason for the proximity between art and science, and, by way of example, the emergence of beauty in mathematics, given that it does not depend on attractiveness. Even if one does consider how mathematics is written to be beautiful.

At first glance, in science – or mathematics – one can only speak of beauty because there is no place for attractiveness, given that mathematics is already a human construction that is the fruit of knowledge, learning, and culture. Although, for some, the mathematical language itself, in itself, and regardless of the ideas it conveys, like an unorganized set of sounds, is pleasant.

3. This aspect leads to another argument. In reality, both the non-Romantic view of art and the view that favours the important role of creativity in science derive from a holistic view of knowledge that does not appear to be generally current today. There is a predominance of inductive thought over deductive thinking; and if one is to question this paradigm, deductive thinking would be essential.

4. Published originally as "Schön und praktisch bauen! Schluß mit der kalten Zweckmässigkeit", in the newspaper *Duisburger General Anzeiger*, 26 January, p.2. He adds: "Beauty in architecture, just as necessary and just as desired as in former times, can only be attained if in building we have more than the immediate purpose in mind [sic emphasis]. (1930 as cited in Neumeier, 1991, p. 307)."

3.2 *Beauty in science*

Although, as mentioned, in common sense, the idea of creativity is linked (still under the realms of the romantic stereotype and the “glorification of scientific reason” (Pelletier and Pérez-Gómez, 1994, p. 4)) to the artist and, consequently, to art, the academic world strongly diverges from this common sense.

Many authors find strong links and similarities between the arts and sciences – whom I think are very much in line with what transdisciplinarity means. Examples I have referred to in a previous article (Gonçalves, 2020): Ortega y Gasset (1883-1955), Federico Mayor (b. 1934), Graham Farmelo (b. 1953), and Siân Ede.

The presence and role of beauty in science are not new, although its discussion may be. According to Bronovski and Mazlish (1988), it is fundamentally important to understand that aesthetic judgment was an underlying aspect during the Scientific Revolution. This was the case, for instance, in the work of Copernicus (1473-1543) and Kepler (p. 129).

Again a romantic. “[L]ife of the gods is mathematics,” and “[p]ure mathematics is religion,” said Novalis (cited in Worringer, 2007, p. 19). It is a very eloquent quotation Worringer chooses, in the early 20th century, on *Abstraction and Empathy* (1908) while calling into question the idea of mathematics being the highest art form according to modern art theoreticians. He points out that paradoxically, and contrary to the usual idea about art, the Romantics first call this idea into question (p. 19).

Today, and once again, not about creativity, but the idea of beauty in science, and perhaps, apparently, paradoxically, Ian Stewart (2007) cites a Romantic author as well in his book *Why Beauty is Truth: A History of Symmetry*. An excerpt from the poem *On a Grecian Urn* (1819) by John Keats (1795-1821) is the epigraph to the work:

When old age shall this generation waste,
Thou shalt remain, in midst of other woe
Than ours, a friend to man, to whom thou
say'st,
"Beauty is truth, truth beauty," – that is all
Ye know on earth, and all ye need to know.
(Keats as cited In Stewart, 2007, epigraph)

Interestingly, Stewart (2007) differentiates between mathematics and science based on the idea that mathematics depends on logic and science on experiment (p. 275).

Ian Stewart (2007) advances the idea and gives examples thereof, that no matter how distant the resolution of new problems presented in mathematics may seem, they will always prove useful in the future. “Good mathematics is more valuable than gold, and where it comes from is mostly irrelevant. What counts is where it leads” (p. 276). On this

question, Poincaré (1854-1912) was unequivocal. In one of his essays, he stated:

The Scientist does not study nature because it is useful to do so. He studies it because he takes pleasure in it; and he takes pleasure in it because it is beautiful. If nature were not beautiful, it would not be worth knowing and life would not be worth living... I mean the intimate beauty which comes from the harmonious order of its parts and which a pure intelligence can grasp. (Cited in Chandrasekhar, 1990, pp. 59-60).

3.3 *Beauty in mathematics*

In the case of mathematics, as Roger Scruton (2014) argues, in his argumentation on the idea that “we pursue the true, the good and the beautiful”: “our thinking ‘latches on’ to a realm of necessary truth, reaching infinitely beyond the puzzles that need to solve” (p.14).

For Breitenbach (2013), the idea that “[m]athematics can be not only true but also beautiful” is a common thought, and aesthetic merit has been a decisive element for many great mathematicians concerning their theorems, proofs, and theories (p. 955). For Breitenbach, there are two fundamental conceptions with respect to the experience of mathematical beauty: on the one hand, the Platonist conception, which consists of an intellectual insight into the fundamental structures of the universe; on the other, the Kantian conception, which is grounded in our felt awareness of the imaginative processes that leads to mathematical knowledge. Breitenbach proposes a relationship between elements of aesthetic reflection, creative imagination, and mathematical cognition.

In “The Study of Mathematics” (1902), Bertrand Russell (2008) strongly argues: “Mathematics, rightly viewed, possesses not only truth, but supreme beauty” (p. 45). And he goes on to say that this is

a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show. (p. 45)

And (again similar to the authors cited above), he compares mathematics to poetry, arguing that

[t]he true spirit of delight, the exaltation, the sense of being more than man, which is the touchstone of the highest excellence, is to be found in mathematics as surely as in poetry. (p. 45)

Of course, here, one recalls Novalis’ words. And, of course, one recalls the subsequent ideas of Paul Valéry (1871-1945), who, in addition to being a poet, was a mathematician as well.

Without wishing to be redundant, I will cite here Bertrand Russell’s description of the freedom he finds where common sense finds only rules, logic, and rationality. His words are as wise as they are eloquent:

[T]he world of pure reason knows no compromise, no practical limitations, no barrier to the creative activity embodying in splendid edifices the passionate aspiration after the perfect from which all great work springs. Remote from human passions, remote even from the pitiful facts of nature, the generations have gradually created an ordered cosmos, where pure thought can dwell as in its natural home, and where one, at least, of our nobler impulses can escape from the dreary exile of the actual world. (2008, p. 45)

The question must be asked whether it is emotions and passions, as opposed to Romantic beliefs, that hinder us and take away our freedom?

Bertrand Russell compares mathematics to architecture, alluding both to logic and structure: “the rules of logic are to mathematics what those of structure are to architecture” (p. 45). Is there a rule that supports beauty?

Unfortunately, the idea of beauty in mathematics, or the aesthetic emotion one feels when studying mathematics, will not be a unanimous subject, at least in common sense. In fact, if one searches scientific databases, one will find numerous articles (particularly in psychology, pedagogy, etc.) precisely about the difficulty that many students have in studying mathematics and sticking to it with enthusiasm.

3.4 *Beauty and truth*

As already pointed out, beauty as a decisive factor in scientific theories in general, and mathematics in particular, has already been dealt with before (Gonçalves, 2020). For this reason, the examples given here are to be considered complementary to those referred. Hermann Weyl (1885-1955), whose research included the theory of groups and physics, writes: “My work has always tried to unite the true with the beautiful and when I had to choose one or the other, I usually chose the beautiful” (as cited in Stewart, 2007, p. 278). According to Ian Stewart (2007), Paul Dirac (1902-84) argues that natural laws and being mathematical were also beautiful, with beauty and truth being two sides of the same coin and beauty being decisive for physical truth. As Stewart informs (p. 277), Dirac also makes the remarkable argument that he preferred a beautiful theory to a correct one.

One of the lines in the epigraph of referred Ian Stewart’s (2007) book that functions as a kind of leitmotif for the work is “Beauty is truth, truth beauty” (p. v). He advances the idea that our minds react similarly to both, and that is, in his opinion, the

reason why beauty and truth appear so closely connected (p. 275).

Mies van der Rohe cites a medieval sentence: “Beauty is the radiance of truth!” (1930 as cited in Neumeyer, 1991, p. 307).

3.5 *Beauty and simplicity*

Stewart (2007) reflects on how Dirac also valued beauty over simplicity (p. 277). Dirac argues:

The research worker [...] should strive mainly for mathematical beauty. He should still take simplicity into consideration in a subordinate way to beauty.[...] the latter must take precedence. (as cited in Stewart, 2007, pp. 277-278)

Stephen Hawking (2002) also describes Galileo’s (1564-1642) motives for confirming Copernicus’ theories as being based on their “simplicity and elegance, in contrast to the complicated epicycles of the Ptolemaic model” (p. ix).

Also, about Kepler’s belief in cosmic harmony, Lippman (1992) argues that: “faith in mathematical simplicity is [...] doubtless intrinsic to the very idea of science”, extending the shadow of that belief to Einstein and subsequent authors (p. 15).

3.6 *Beauty and unity*

On Copernicus, Bronovski (1988) also references another concept that is associated with beauty: that of unity (it was because he did not find beauty and unity in Ptolemy’s (ca.100-ca.170) theories that Copernicus rejected them) (p. 129). (See also Gonçalves, 2020)

Bertrand Russell links simplicity and unity implicitly, reiterating that “[t]he discovery that all mathematics follows inevitably from a small collection of fundamental laws is one which immeasurably enhances the intellectual beauty of the whole” (p. 45).

3.7 *Sublime*

One wonders if it is not also the case that it is not a search for the sublime per se, but at least for the sublime as well.

In the examples above, one can read some descriptions in the scientists’ statements that come very close to those of the sublime, even more so than the beautiful. They even go as far back as Edmund Burke’s seminal work, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (1757). Among others, vastness, infinity, succession, and uniformity are qualities of the sublime referred to by Burke. It is indeed wonderful to note how the same aspects are also present in the thinking of scientists and how we understand the

feelings of the philosopher (about art and nature) and the scientist (about science, in general, and to mathematics, in particular) as being similar.

Burke (1757/2010) states on infinity: “The ideas of eternity, and infinity, are among the most affecting we have: and yet perhaps there is nothing of which we really understand so little, as of infinity and eternity” (p. 34). Also, on infinity: “Greatness of dimension is a powerful cause of the sublime” (p. 39). And “[f]or division must be infinite as well as addition; because the idea of a perfect unity can no more be arrived at, than that of a complete whole, to which nothing may be added” (p. 40). We immediately imagine the physicist studying the universe with its unchangeable laws and principles, its infinite space, its sense of immortality, and emotionally. And it is extraordinary how Burke also refers to the infinitely small: “[A]s the great extreme of dimension is sublime, so the last extreme of littleness is in some measure sublime likewise” (p. 40). He shows the same fascination as Poincaré (see below).

And he explains how an “artificial infinite” may be created: “Succession and uniformity of parts are what constitute the artificial infinite” (p. 41). “I believe, we ought to look for the cause why a rotund has such a noble effect. For in a rotund, whether it be a building or a plantation, you can nowhere fix a boundary” (p. 41). It looks like the writing of a mathematician. Or an architect. Alternatively, a painter that depicts a tholos in the landscape.

Poincaré goes further, hand in hand with Burke:

It is because simplicity and vastness are both beautiful that we seek by preference simple facts and vast facts; that we take delight, now in following the giant courses of the stars, now in scrutinizing with a microscope that prodigious smallness which is also a vastness, and, now in seeking in geological ages the traces of the past that attracts us because of its remoteness (as cited in Chandrasekhar, 1990, pp. 59-60).

In his preface, “Sublime, Neoclassical, Romantic” [My Translation] to the Spanish translation of the works of Burke (Burke, 1757/1985, pp. 7-37), Valeriano Bozal explains how Burke, in his consciousness (which, for this author, was greater than for any other 18th-century writer), was extremely careful not to go outside the boundaries defined by taste. He thus felt the need to explain the sublime based on experience and experience alone (p. 15). It is interesting to note that today empirical aesthetics is very much a thing and that there are institutions such as the Max Planck Institute for Empirical Aesthetics (based in Munich and founded in 2012), which “aims to use scientific methods to explain the psychological, neuronal and socio-cultural basis of aesthetic perceptions and judgements.”

And one must not forget that, after Kant (1724-1804), who, according to Ginsborg (2019), shows the influence of Burke, the very definition of sublime contains, in itself, this mystique of mathematics, for Kant proposes two notions of the sublime: one of them is the mathematically sublime and the other the dynamically sublime. The mathematically sublime is related to infinity and vastness.

One could rightfully ask if science does not, in reality, seek the sublime more than beauty?

4 TOWARDS A HOLISTIC VIEW AND THE FEELING OF BEAUTY

Again we recall the desire, and also the need, to put inter and transdisciplinarity into practice today, as well as the idea so eloquently expressed by Steven Holl (2006) of the “thought-to-feeling bridge” (p. 144).

Knowledge must not be separated from emotion; their common root is amazement about the world, expressed through the harmonious integration of all those intellectual and creative faculties that we use to respond to the wonder of things, both immense and minute (Luminet, 2009, p. 272).

As Albert Einstein said:

[M]an tries to make for himself in the fashion that suits him best a simplified and intelligible picture of the world; he then tries to some extent to substitute this cosmos of his for the world of experience, and thus to overcome it. This is what the painter, the poet, the speculative philosopher, and the natural scientists do, each in his own fashion (Einstein, 1954, as cited in Luminet, 2009, p. 273).

5 CONCLUSIONS

The inter and transdisciplinary debate opens up new perspectives both on the relationships between the various disciplines and on how each discipline sees things. Inter and transdisciplinarity prove to be a useful exercise which, depending on the intuitions resulting from its genesis, enriches itself with disciplinary knowledge and reciprocally enriches the individual disciplines through said exercise.

We are definitely thinking with emotion: through an encounter with beauty, the sublime, the real.

When one discusses the question of rules vs. taste, in reality, one is not discussing the rules of mathematics vs. taste, but just rules – in the broadest sense – given that mathematics itself seems to be dependent on that taste, the presence of (and the quest for) the beautiful.

Could it be that the quest for beauty and the sublime are walking, not independent of each other, but side by side and even simultaneously?

In the end run, the creative processes are similar, and beauty indeed exists in these two forms traditionally distanced from one another. One can advance here the hypothesis that the sublime is also present in science.

If there is unanimity regarding the conviction that creativity is so essential in both art and science, it also seems to be unanimous that, after all, the search for beauty and its use as a decision-making criterion also seems to be common to both areas of thought.

There is a need for a holistic view – both synchronic and diachronic; transdisciplinarity and temporality. For beauty is ever everywhere. Felted everywhere. Needed everywhere.

As Keats very well understood, “[a] thing of beauty is a joy forever” (John Keats, *Endymion*, 1818).

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Mental and emotional processes in two post-Bomarzian parks: Buzzi's *La Scarzuola* and Saint Phalle's *Tarots' Garden*

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ABSTRACT: In central Italy, near the Bomarzo Garden, there are two parks, different in consistency and conception, which in some way express a territorial and ideological continuity with the famous Mannerist garden. The first one, *La Scarzuola* (Montegabbione), has been designed by the architect Tomaso Buzzi (Sondrio 1900 - Rapallo 1981); the second one, the *Tarots' Garden* (Garavichio), by the artist Niki de Saint Phalle (Neuilly-sur-Seine, 1930 - San Diego, 2002). They have been and built over a long period, not following a complete and pre-established graphic project, but entrusted to the logic of the open site that represents the vision present in the minds of the two authors: two amazing and, at the same time, disturbing works, also for the type of design process. The first one, marked by an attempt to rationalize, effectively empties the architecture of its housing instance, transforming it in fact into a sculpture; the second one, on the contrary, based on an emotional process, extends the plasticity of sculpture to a space in which the human presence is continuously compared with the scale difference, ending up revealing an architectural nature. This request for the completion of sense activates in the user a mental mechanism of completion and positioning of meaning that arouses an alienating sense of accurate reflection.

Keywords: Tomaso Buzzi, Niki de Saint Phalle, *La Scarzuola*, *Tarots' Garden*

1 INTRODUCTION. THE INFLUENCE OF BOMARZO OVER "LA SCARZUOLA" AND "TAROTS' GARDEN"

The famous Garden of the Monsters in Bomarzo by Pirro Ligorio (Viterbo, 1547) represents the emblem of Italian Mannerism, a time when the great lesson of the Renaissance crystallizes and at the same time degenerates into a sort of decadence, in which the style becomes a stylistic device, and where the fracture between architectural body and its decoration is accentuated in the project.

To some extent, these are some of the themes that Gillo Dorfles deals with in his famous book on the meaning of Kitsch, in which the essayist, famous for his introspective acumen and his prophetic vision of aesthetic phenomena, points out that the nature of the phenomenon does not concern only the possibility of bringing it back to an aesthetic category, but also a process of semantic inversion between container and content, or form and function (Dorfles 1968).

Borrowing this definition, stripping it of any judgment on the aesthetic outcomes (on which, however, it could also be discussed), its

applicability is still definable in terms of analogy. Bomarzo first, but later *La Scarzuola* and then the *Tarots' Garden*, subjects of these pages, are well suited by their nature to demonstrate the applicability of this definition, expressed already by the phrase that welcomes visitors to Bomarzo: "Tu ch'entri qua, pon mente parte a parte et dimmi poi se tante maraviglie sien fatte per incanto o pur per arte" ("You who enter here, mind you carefully, and then tell me if so many marvels are made for enchantment or even for art").

2 A MENTAL PROCESS: TOMASO BUZZI AND THE ARCHETYPES OF "LA SCARZUOLA"

It is difficult to describe the complex personality of Tomaso Buzzi (Sondrio, 1900- Rapallo, 1981) in a few lines. The years of his training and professional debut are part of a crucial and controversial period, during which Italy seeks its own orientation, poised between the search for an autonomous and modern identity and nostalgia resulting from a very cumbersome tradition.

Architect, designer, interior and set designer, decorator, artistic director from 1932 to 1934 of the glassworks Venini, collaborator of Fortuny and then of Gio Ponti since the 1933 *V Triennale*, and with him involved in the production of numerous objects, interior architect for the highest Italian bourgeoisie, was also the protagonist of unusual and eccentric cultural meetings.

A frequenter of Salvador Dalí and Charles de Beistegui, who commissioned Le Corbusier to design his own Paris penthouse and hosted the “Ball of the Century” at Palazzo Labia in Venice (1953), Buzzi was very used to visit international museums, redesigning on his notebook a series of works of art and decorations, according to his personal selective procedure.

He redesigned Giovanni Battista Piranesi, Baldassarre Peruzzi, Bernardo Buontalenti, Francesco di Giorgio, Benozzo Gozzoli, Giovan Battista Montano, Palladio (in his youth he had also signed the renovation project for Villa Barbaro Maser).

At the peak of a professional life very often intersected with an eccentric worldliness, whose climax is represented by the design of the Martini Terraces, at the same time, Buzzi insinuates the desire to obtain a physical and mental environment all its own, a place to make true the summa of all his vast knowledge accumulated for years.

This is how in 1956 he bought the Scarzuola Convent (Montegabbione, Terni, Umbria), where according to the tradition San Francesco had stayed, and from 1958 to 1971, he dedicated himself to the realization of a visionary, complex, articulated, and open project of expansion, in continuous evolution (Bottini & Nicoletti 2007, p. 53).

The monumental complex of *La Scarzuola* is configured as a stone park, composed of sculptural architectures with multiple ancestral and esoteric meanings, remarkable references, and quotations of the most cultured figurative repertoire: there are Bomarzo, Villa Adriana, the Parthenon, the Pantheon, and the Coliseum.

Certain drawings by Filarete and Pirro Ligorio (especially the *Rometta Fountain* in Villa d’Este) are recognizable and references to the Piranesian, Borrominian, and Palladian fantasies. A sort of architectural translation of the oneiric *Hypnerotomachia Poliphili* (1499) by Brother Francesco Colonna traces this path, often defined as neo-mannerist, where the constructive theme of the “bugnato” (ashlar), or the geometric one of the spiral, with all the consequential symbolic overload.

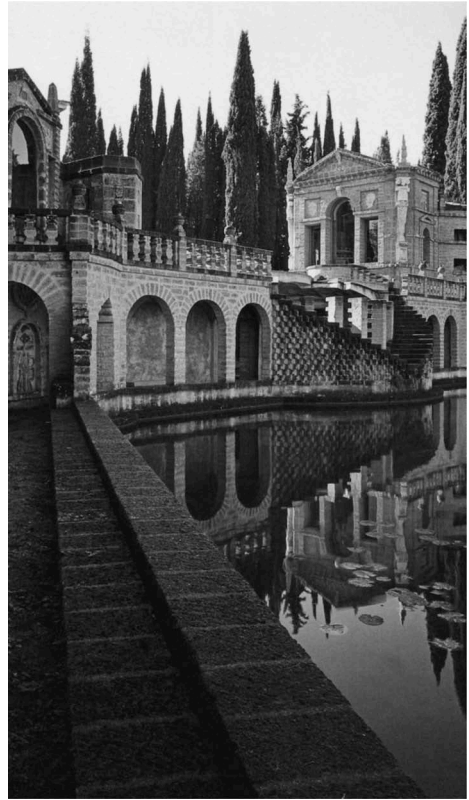


Figure 1. *La Scarzuola*: The *Teatro Acquatico* (Water Theatre), or *delle Naumachie*, and the *Arnia Theatre*, or *delle Api* (Honeybee Theatre).

In the wide production of Buzzi’s drawings, which are now mainly kept in the *La Scarzuola* Archive, all his cultural references and the personal reinterpretation of the Author are evident. In fact, some references are hybridized between them, with an apparent ease that borders on the Kitsch, but that, in truth, is soon the result of a thorough knowledge by the Author. Buzzi often redesigned works that he saw in churches or museums, Italian and foreign ones, among the most unexpected, using the graphic tool as a selective and elective act of elements considered interesting by him, capable of defining symbolic and cultured references (Ribichini 2005, p. 37).

It had a large library, including the treatise by Giovan Battista Montano, author of an imaginative survey of ancient Roman monuments, which included existing monuments, but reinterpreted, and mythical architectures no longer existing or/and supposed to have existed. Montano curiously used a mixed system of representation, in which he united axonometry, perspective, and orthogonal projections. And in some parts of *La Scarzuola*, Buzzi turns this mixture into reality, operating a sort

of perspective restitution, in which the conventional form of representation becomes real.

The result is incredible. In fact, it is evident for the viewer to be immersed in a non-functional architecture, almost a gigantic scenography, made more ambiguous by the fact of being built with durable materials and not ephemeral (the stone, first of all), typical of the inhabited architecture. Secondly, the distortions imposed by the perspective restitution mentioned above complete the sense of alienation and anxiety resulting from the fact of not understanding immediately and to the end of the programmatically announced rationality.

The same happens in the *Theatrum Mundi*, the largest of the numerous theatres in La Scarzuola, a gigantic hemicyclic theatre of apparently classical inspiration but soon reveals its enigmas. The centripetal force of classical theatre is contradicted by the symbolic duality of the sun and moon, present in the two stages in the shape of a belvedere, while the relationship with the scene (very equal in classical theater, in terms of scale design) is overturned by the insertion and attempt of the actual construction of the visionary model of Ledoux for the Theatre of Besançon. In fact, Buzzi realizes under the stage a “room of the eye” to watch the audience, transforming the space of observation into observed space (Cassani 2004b, p. 84).

Describing *La Scarzuola* in detail means getting lost, both for the site’s vastness and the abundance of details and interpretative possibilities. From this task, the copious bibliography on the subject fulfills us, to which reference is made (Cassani, 2008; Spaccini [2009], 2013).

Rather, this example can give rise to a series of considerations that interlace and contrast among them, compared to a speech to be conducted on that balance between rationality and emotionality, between the scientific and artistic spirit.

The first concerns the possibility of the coexistence of stone material with the nature of the space (Cassani 2004a, p. 64). Suppose the first of the symbolic values that the stone embodies is that of its durability and par excellence Vitruvian firmitas. In that case, the setting has a temporary status. Its ephemeral nature, at least ideally, appeals to transience (both during assembly and dismantling) and the lightness of the number of materials used, not normally covered by the traditional prerogative of architectural construction. This apparent oxymoron is instead one of the core interpretations of *La Scarzuola*: Buzzi extends that affection of the Franciscan places for the stone (the Dantesque «crudo sasso intra Tevero ed Arno.» «raw stone between Tiber and Arno» *Par. XI*, 106) with the intent of representing the supremacy and eternity of that path of initiation and research that the complex symbolizes. The irrelevant applicability of the stone material to the nature of the space is crossed with the path of opposite sign: the

adhesion of the reasons of architecture not strictly functionalist and «without foundations» (Vesco, 2004) to the concreteness and tectonics of stone. Deprived of its purely scenic dimension, the architecture of *La Scarzuola* is readable as a sort of monument, poised between architectural product and work of art.

This aspect is ideologically justified by Buzzi’s poetics, aimed at infusion alchemical, spiritual, metaphysical, religious, masonic, and esoteric meanings.

The stone surface is understood as a dermis on which to concretely engrave the signs of this narrative: geometric shapes, phytomorphic, astronomical, zoomorphic and anatomical references evoke their conceptual positioning (in the manner of Dalí or even the insertion of objects in Picasso’s compositions).

At the same time, all the parts of the project are treated as a sort of macro-objects, converging in a syntagmatic composition, in which the part allows to read the whole, a bit in the manner of Arcimboldi, another explicit reference among the many scattered in *La Scarzuola*.

This characteristic deprives each building of its evident architectural nature, almost always ascribed to the best-cultured repertoire of the Renaissance and Mannerism, thus making them a sort of objects on display, almost like large sculptures.



Figure 2. The *Tower of Babel* in the complex of *La Scarzuola*. References to Piranesi’s sketches and to Palladio’s *Villa Sarègo* are evident.

3 AN EMOTIONAL PROCESS: NIKI DE SAINT PHALLE AND THE ARCHETYPES OF “TAROTS’ GARDEN”

The French-American artist Niki de Saint Phalle (Neuilly-sur-Seine, 1930 – San Diego, 2002) was just seven years old when she moved with her family to the USA and twenty years old when she married the American writer Harry Matthews. In these years, she had experiences in writing, theatre, fashion, and cinema before understanding that painting would be her main outcome. In 1952, after a nervous crisis, she returned to Europe, and in 1955 she visited Parc Güell by Antoni Gaudí. In 1956, during an exhibition in St. Gallen, Switzerland, she met the artist Jean Tinguely, with whom she would have a romantic, artistic and intellectual relationship until the end of her life.

Since the 1960s, several significant artistic experiences have taken hold. Niki and Jean, meanwhile divorced from their previous marriages, embrace the movement of the Nouveau Réalisme, which had been already joined by other artists such as Yves Klein, Martial Raysse, César Baldaccini, Daniel Spoerri, Jacques Villeglé, Christo, Gerard Deschamps, and the Italians Edoardo Puglisi and Mimmo Rotella. Intellectual contacts and affinities with the movements of Op Art, Pop Art, and New Dada were conspicuous. In the same years, Niki is produced in the sequence of *Tiri*, a series of plaster sculptures, against which some shots, made by the artist or the public, caused some pockets of color to explode with random and unpredictable effects.

Since 1965, it is the turn of the *Nanas*, female sculptures life-size scale at first, then gigantic. In 1966, for the Moderna Museet in Stockholm, together with Tinguely and Per Olof Ultvedt, Niki created *Hon/Elle*, a gigantic pregnant *Nana* 28 meters long, 9 meters wide, and 6 meters high. The two breasts hosted a bar and a planetarium while the visitors, not without controversy, entered through the vagina.

At the same time, Niki and Jean visit Ferdinand Cheval’s *Palais idéal*. He, a letter-holder, had built in Hauterives (Drôme, Central France) a dreamlike palace, following the images of his naïf fantasy, collecting day by day curious stones that he later employed in the construction.

Jean, enthusiastic about the opera, will follow all the Nouveaux Réalistes to visit it. Some years later, many other artists such as André Breton, Max Ernst, and Pablo Picasso would visit and admire the work.

This last visit, and probably the vision of the three colossal statues/telamons (Vercingetorix, Caesar, and Archimedes), decreed in Niki the definitive will to create a park of her own, in which all these experiences, from the Parc Güell to the Palais Idéal, passing through the *Nanas*, will converge, according to her personal interpretation.

In 1974, Niki spent some time in St. Moritz, recovering from a pulmonary abscess due to the

polyester dust that she breathed for a long time. During this stay, she encountered Marella Caracciolo Agnelli, whom she met for the first time in 1950 in New York. Her brothers, Carlo and Nicola Caracciolo, will give her the land of Garavicchio (Grosseto, Tuscany), on which it would have been possible to realize the utopian project of the *Tarots’ Garden* (Aureli 2006, p. 37).

In 1979, the land was cleared, and the foundations were laid for the first buildings built the following year. Tinguely involves several people in the project: the postman Ugo Celletti, two Swiss collaborators, Rico Weber and Seppi Imhof, the Dutch artist Dok van Winsen. This is how the first three sculptures were born, inspired by the Major Arcana of the tarot cards: *The Pope*, *The Magician*, and *The Empress* (*The Sphinx*), to which are soon added *The Tree of Life* and *The Sun*. Meanwhile, Niki subsidizes the project by selling a perfume for the Jacqueline Cochran Company, for which he also designed the bottle.

New artists join to collaborate: Tonino Urtis, Ricardo Menon, Venera Finocchiaro, Gérard Haligon and Pierre Marie Lejeune, Marco Iacotonio, Robert Haligon with their sons Gérard and Olivier, Marcelo Zitelli and Claudia Celletti. The project takes more and more shape and in a few years, new sculptures are added.



Figure 3. *Tarots’ Garden*: front view of *The Popess*. References to the entrance of Gaudí’s Parc Güell are evident.

Between 1987 and 1993, Niki spent a period in Paris, but in the meantime, she created other sculptures: *The Emperor*, *The Tower*, *The Justice*, *The Force*, while *The Empress* became a big house for herself, in which she lived while overseeing the continuation of the work. The garden becomes an open construction site. Numerous artists/artisans, with the collaboration of locals, take care of different aspects: metal structures, polyester casts, concrete roofing, clay plates, and glass mosaic cladding, mirrors, and ceramics. For this purpose, they purchased ovens, and special ceramics are produced on site, while many minor works for the garden are completed: *The Death*, *The Hermitage*, *The Devil*, *The Chariot*, *The Hanged Man*, *The Oracle*, *The Sage*, *The World*, *The Star*, *The Conversation*, *The Seat of the Snakes*, the paths with graffiti, other ceramic decorations, as well as the larger versions of *The Moon* (Morelli 2004; Bottinelli & al. 2007, p. 14).

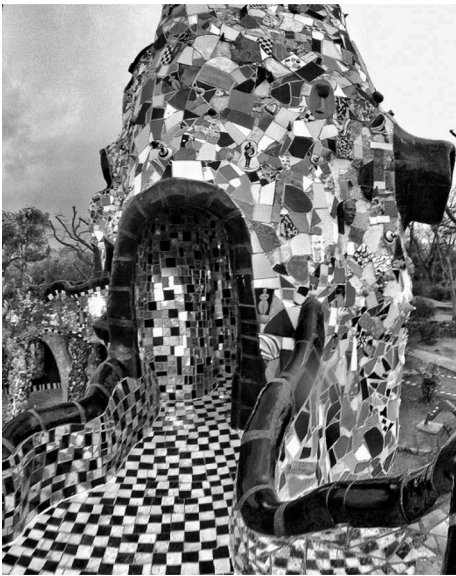


Figure 4. *Tarots' Garden*: The entrance from the upper level to the large sculpture of *The Emperor*.

Niki works to produce sculptures and objects of all kinds, inspired by the *Tarots' Garden*, whose sale between Geneva and the United States will be useful to finance the progress of the work.

The last part of the history is pretty sad: in the meanwhile, Jean suffers a heart attack, Niki falls ill with rheumatoid arthritis, and AIDS mows down other co-workers. It is the beginning of a slow and progressive decline that will lead Jean to death in a few years, in 1991, when Niki places the last great sculpture, *The*

Fool, and meets Mario Botta, who designs and builds the wall and the entrance to the park.

Since 1994 Niki retired to La Jolla. Her health was progressively declining. She died in 2002, leaving in her last will the desire to keep the park in its conditions, adding no further monuments or sculptures, but in the meanwhile safeguarded by the establishment of a legal entity.

4 CONSIDERATIONS

The study of both parks, which here are assumed as case studies, cannot disregard an accurate visit to the sites, integrating the historical and theoretical study with two different considerations.

Apparently, they are both architectures in a certain sense “reassuring”: in the first case, they are taken from the classical repertoire and assembled, therefore extremely recognizable and referable to well-known archetypes; in the second case, the architectures that would have a naive, childish and innocent character.

But actually, as mentioned above, in a certain way, both are disturbing parks. Walking in these two parks, not during the crowded tourist visits but in the privileged context of solitude, arouses a continuous disquiet, dictated by the estrangement of the visitor.

Although both parks offer to the visitor visions that can be traced back to hidden archetypes, in a certain sense, it could be said that, according to different levels of complexity, what worries in the two gardens is the evocation that they carry out of the missing complementary, about which spectator is continuously asked.

In the first case, the question concerns figurative-architectural archetypes; in the second case, figurative-psychological ones.

There is a constantly present question of completion of sense, which the user finds without tools to define the answer.

In *La Scarzuola*, the visitor is offered the opportunity to travel through a complex concept, a sort of repertoire selected by the refined author in his long years of studies and research. A continuous positioning of a long series of symbols, references, and evocations set rationally in a path that, if it can be clear in the meanings, questions rather the meaning of the general operation. In this sense, *La Scarzuola* can be called a visionary work, not so much because it results from a series of visions by the author but because it generates visual questions in the viewer.

All the drawings that have contributed to the definition of the parts of *La Scarzuola* have been studied, reworked, and hybridized by the hand of Tomaso Buzzzi, who very often animated them with fantastic presences, recalling certain early interior projects by Gio Ponti, whose graphic representation

is continuously animated by the presence of imaginary spirits. Yet *La Scarzuola* presents itself to the viewer as an open-air memory theater, crystallized, waiting for the completion of meaning. It is fair to think that the role of those ghosts, extraneous to the composition and although essential for its completion, is entrusted to the visitor, called to place Tomaso Buzzi's personal "ideario," cultured and scientific, in the direction of an emotional sense.

It is no coincidence that *La Scarzuola* has never been on the stage of social events or that its theatres, if not in recent marketing operations (aimed at raising funds for the expensive maintenance of the site), have never been active for theatrical performances. Moreover, the site was conceived by Buzzi as an open work of art, subject to further integration and completion, as in fact there were, all within the logic imposed by the author: to question the visitor.

Even in the *Tarots' Garden*, the viewer questions himself, but in the opposite sense.

It is not even coincidental that one of the gigantic habitable sculptures is the sphinx, which interrogated the unfortunate travelers in mythology. And perhaps it is useful to remember that the only one who could answer, Oedipus, had a very unfortunate life.

Here, faced with enormous anthropomorphic and habitable sculptures, in which emotional archetypes clearly emerge, tapping into the subconscious, the user tries positioning sense in a rational direction. But a positioning of the worries of Niki de Saint Phalle determines in who observes a continuous restlessness, that in this case, the visitor is called to position in rational terms.

These remarks apparently lead one to think that there is not only the prevalence in the architecture of a rational register, while in the sculpture of a more emotional one, but also, in the direction of completion of sense, the exact opposite, playing on the ambiguity inherent to the two complexes.

La Scarzuola is, in fact, devoid of any housing and functional need: there are no habitable buildings and, also to want to expand the notion of habitability to the accomplishment of other practical functions, *La Scarzuola's* seven theatres themselves seem to be unprepared for stage performance, resembling more "memory theatres." On the contrary, in the *Tarots' Garden*, those apparent gigantic sculptures end up being habitable, and the same Niki de Saint Phalle declared how living inside the belly of a sculpture determined in her an oppression and a continuous mental restlessness (de Saint Phalle 1999, pp. 45-58).

In summary, then, *La Scarzuola* can be considered an architecture that crystallizes into a sort of sculptural park, while the *Tarots' Garden* large sculptural park soon reveals how it is a series of architectures (Trapani 2004, p. 48).

In the first case, the absence of people to functionally enjoy the architectural space iconifies the three-dimensionality of the stone in a sort of figurative estrangement. In the second case, the anthropomorphism of the gigantic sculptures in some way renders the human presence extraneous to an out-of-scale context, in which the people can enter only with an operation of mental regression, such as the one that Saint Phalle had already experienced in Stockholm in 1966 with *Hon/Elle*.

However, at the end of this overview of the differences between the two gardens, an evident trace that unites them can be found.

It is not only necessary to point out that both authors proceeded without a precise general plan. Precise was, of course, the intent, but certainly not in the definition of executive drawings. Only recently, a complete relief of *La Scarzuola* has been made (Ippolito 2018). Moreover, there is the certainty of continuous adjustments and changes during the building phase. Their construction proceeded with an almost artisanal, certainly wise and worthy of an architectural and artistic magisterium. "Architectural" regarding the building and spatial conception, "artistic" with regards to the meanings, very next to a Total Artwork.

In both cases, the renunciation of utilitarian functionality (the Kantian «disinterested pleasure»), unless understanding the functionality of symbolic values (the Kantian «needed pleasure»), however, does not preclude the effort to understand that the work needs in the face of the positioning of sense that not even too implicitly requires the user.

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The spectacle of protest: The case of Budapest University of Theatre and Film Arts (SzFE)

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ABSTRACT: Ever since the French Revolution turned into terror, we can ask the question that motivated Schiller to write his Letters on Aesthetic Education, over and over again: how can we fight for the moral-political state without becoming barbaric? Schiller proposes aesthetic education, i.e., creating an aesthetic state in which mind and emotions are equally important. His proposal may seem like a well-intentioned naivety: fighting with the means of beauty does not seem very effective. Reflecting on the protests of the last decade or two, however, we notice just such an attempt. There is an increasing emphasis on creative solutions, visibility, and artistic means. These changes can be linked to the spread of social media and to the fact that events can be reported not only by the central, official, and traditional media outlets but also by the participants themselves, in real-time. This is how a kind of hijacking or *détournement* (Debord) of the spectacle takes place. Drawing on the insights of Schiller, Debord, and Groys, this paper analyzes a striking example of this new kind of artistic activism, the case of the #FreeSzFE movement from Budapest. The actions of art students from Budapest testify to the possibility of intertwining mind and emotions in the form of the spectacle of protest.

Keywords: Protest art, Spectacle, Artistic activism, Aesthetic state, #FreeSzFE

1 THE AESTHETIC STATE

Having lived through the events of the French Revolution and rooting for the idea of freedom, Friedrich Schiller was shaken by the transformation of the revolution into terror. He interpreted the events as people trying to get out of the realm of emotion-driven coercion to enter a moral realm controlled by reason but losing their sensitivity and humanity along the way. Man becomes a barbarian “when his principles destroy his feelings” (Schiller, 2006, Letter IV). Schiller has asked the big question: how can we strive to change society without becoming barbarians in the process? He suggests that we should create in ourselves an aesthetic state in which emotion and reason are balanced, so we can follow the instinct of play that prepares us to be what we should be: moral beings. The aesthetic (political) state is the realm of beauty and, at the same time, the empire of freedom, since “it is through beauty that we arrive at freedom” (Schiller, 2006, Letter II). Thus, based on a line of thought that is not free of contradictions, he advances the highly appealing, but perhaps not fully supported, the idea that aesthetic education improves individuals and society.

The possible interplay of art and social activism – as Boris Groys has shown – has been attacked on

two sides: on the side of art, insofar as it degrades art, and on the side of activism, insofar as the protests become ineffective, aestheticize the issue, and thus divert attention from the real political struggles (Groys, 2014). In the various protests of today, however, the presence of creative, artistic solutions has spectacularly increased. Hence, it would be time to rethink the issue and reflect on how individuals who build an aesthetic state within themselves can express their protest by relying on both emotions and the mind.

2 THE TRANSFIGURATION OF PROTEST

The relationship between protests and artistic expression is an area less studied by researchers (see Adams 2002, 2005, McCaughan 2012). Nowadays, however, researchers can no longer ignore the new nature of protests. The familiar sight of demonstrations (large crowd, marching, holding identical banners, and the chanting of rhymes, all of which were meant to demonstrate the physical strength of the crowd) is starting to change. Protesters use much more varied forms of expression, so we can rightly talk about “protest art” (Tunali, 2017, p. 68). In recent years, there has been a proliferation of studies

exploring the aesthetic, creative side of protests (see (Daphi et al., 2013); Bonham-Carter & Mann, 2017; Sarfati & Chung, 2018; Hall et al., 2018; Aulich, 2019; Diaz, 2020). The protests of the new millennium were born in a world where, on the one hand, relationships between people and, on the other, visibility are determined by social media. Through social media, the audience can learn firsthand about the events in an “uncut” manner. Researchers highlight the positive impact of social media as a means of communicating, organizing, disseminating information, and expressing solidarity.

However, there are also many more skeptical voices. Mark Deuze and Lindsay Ems denounce today’s slacktivism (Deuze and Ems 2019). The authors come to the shocking conclusion that today’s slacktivism has turned people into zombies:

Contemporary forms of mass protest for social change feel like zombie movements. There are – or seem to be – no leaders, no hierarchies, few or no particular individuals running the show, even though there definitely seems to be a show taking place. (Deuze & Ems, 2019, p. 381)

According to them, what distinguishes today’s social movements (the Arab Spring, UK riots, street protests in Brazil, Occupy Wall Street, #Metoo, Black Lives Matter, etc.) from traditional protests is that “emotions may be the main reason people participate in movements in the first place” (Deuze and Ems, 2019, p. 376).

The authors highlight “playfulness,” which means that the events are self-centered and self-serving. The participants do not attend them for an additional purpose, but because they are enjoyable in themselves. These are manifestations which “at least to some extent are somewhat non-serious and somewhat performative” (Deuze and Ems, 2019, p. 373). Deuze and Ems seem to be turning Schiller on his head. The aesthetic state is not a state of freedom, but just empty play, which empties out the players and leaves only a hollow shell behind. In this context, the case of the SzFE in Budapest is, in my opinion, a very special experiment, which makes it possible to decide whether aesthetic devices turn protests into a frivolous play or are its adequate forms. In the case of the SzFE, art students (filmmakers, actors, directors, photographers, playwrights, etc.) tried to achieve their interests with the very artistic means that are the essence of their profession. They do not use the possibilities of the new media in the sense of slacktivism and do not act like zombies but consciously build up all their manifestations. At the same time, they pay attention to transforming their manifestations into playful, performative, emotional events, as if they had learned from Schiller that “the road that

terminates in the head must pass through the heart” (Schiller, 2006, Letter VIII).

3 THE CASE OF THE SzFE

The University of Theatre and Film Arts in Budapest (Hungarian: Színház- és Filmművészeti Egyetem, SzFE) is a more than 150-year-old, distinguished educational institution, with one of the smallest student populations in Hungary (approx. 350 students), providing a diverse and well-recognized training in the field of the performing arts. Its teachers and students regularly attend prestigious international professional events and often return home with awards.

The Hungarian political leadership intended to transform this state institution into a foundation-based university, justifying this model change because the new structure ensures a more competitive operation. In June 2020, it turned out that the SzFE would come under the control of a foundation from September 1. In the pro-government press, the “model change” of the SzFE was also motivated by ideological reasons:

education is denationalized, Hungarian and Christian values are not included, and the institution is outdated anyway, it has been held by the same ‘small group’ for decades, and there would be an opportunity now for radical renewal and even modernization (Nagy, 2021).

The model change was rejected by university students and faculty members because there was a lack of consultation with the university community, and the government carried out the transformation at record speed. The resistance of the small university community lasted unexpectedly long. It started in July 2020 and is still going on as of the writing of this paper, on January 15, 2021. Its viability seems to be due not only to the community’s strong identity but also to the varied, creative processes by which the interests of this community were expressed.

In July 2020, the Fidesz-majority parliament transformed the institution by law into a foundation-based university despite the protest. László Upor, the rector elected a year and a half ago, has still not been confirmed as the head of the institution. None of the proposals made by the university community were accepted, and no member delegated by the university was admitted to the board of trustees. Obviously, the university’s transformation was not intended to be carried out jointly with the university community but against its will.

By the end of August, the board of trustees had adopted a new organizational and operational policy, radically limiting the powers of the senate elected by the university citizens.

On the evening of August 31, a demonstration in front of the SzFE building culminated in the

occupation of the university. About 250 students have occupied the university building and placed the institution under a blockade, stating that, from now on, the students will decide which university managers and teachers they will admit or keep away from the institution (Színház- és Filmművészeti Egyetem HÖK Facebook page, 2020). The rector, who was elected, but has not been confirmed by the ministry, inaugurated the academic year in mid-September, based on the idea of an “experimental republic of instruction” in which, along with traditional education, actions reflecting on the situation of the university will also be included, and an “educational alliance” between students and teachers will be created (Upor, 2020, p. 3). The blockade was maintained for 71 days, and only after the epidemiological measures related to SarsCov2 did the students leave the university, on November 11, with the country-wide shift to online education.

The protest of the university community took two main forms: on the one hand, that of the protest actions organized by students, the occupation of the university, and countless other activities; on the other, that of the strike of the teaching staff and other employees. The situation resembled a months-long stationary war. László Palkovics, the minister, considered the opposition to be a professional debate, which the board of trustees must carry out, and refused to negotiate with the delegation of the SzFE, the students, and the representatives of the strike committee. In contrast, the board of trustees, which the students did not recognize, considered the protest to be politically motivated throughout, and it would have been willing to negotiate only if the students gave up the blockade, removed the #FreeSzFE banners, and terminated cooperation with the university’s legal representative. Thus, a stalemate situation arose, and the potential space for negotiation was eliminated for the protesters.

From October 1, 2020, the board of trustees appointed two vice-rectors and a new chancellor in the person of Gábor Szarka, a professional soldier. These new managers, who were appointed without consultation, were also not recognized by the university community. The chancellor tried, unsuccessfully, to enter the building (October 1), threatened to withhold the payment of salaries (October 2), ordered the students to evacuate the building by October 7, “considered” the republic of instruction “closed” on October 13, threatened the expulsion of the administrative staff collaborating with the university occupiers (Spike, 2020), closed the halls to the university occupiers (October 13), has shut down the internet in the building (October 14) and cut off the power supply for a while, blocked Facebook on the university computers, the students’ most important communication platform, (October 16), stopped the payment of student scholarships (October 4), and prevented the teaching staff from accessing the

system in which they could prescribe exams, assignments, and enter grades (November 8). He ordered an early autumn break from 16 to October 26, which students and faculty ignored. These measures were later found to be unlawful by the tribunal.

Many people expressed their solidarity with the SzFE students, including recognized artists from the theatre and film industry, foreign theaters and actors, various individuals and institutions. Every day during the blockade, students put up a billboard with what they would need, and the people of Budapest supported them with food, water, and medical equipment. On the other hand, the official media portrayed the whole movement as a riot of misled and confused young people.

Even under challenging circumstances, the university citizens persevered with their demands. The teachers had to face the possibility of the non-recognition of their work and the students that of their semester. The board of trustees sold the symbolic building of the blockade in January, and the second semester was organized at new, dispersed locations. The acquired grades and credits were deleted from the IT system. Some of the teachers (including renowned actors, theater and film directors) resigned, and the board of trustees recruited a new teaching staff. Nevertheless, many have said that whatever the outcome of the movement, the students have already won since they managed to write history.

My hypothesis is that one explanation for this persistent resistance and the supportive sympathy it triggered is precisely that the manifestations of resistance spoke at least as much to feelings and emotions as to reason. The #FreeSzFE movement demonstrated that, to quote Schiller, “it is through beauty that we arrive at freedom” (Schiller, 2006, Letter II).

4 THE ART OF PROTEST IN THE CASE OF #FREESzFE

The process of the protests can be divided into two parts. The first is the period of offline protests, which students described thus: “We started using the city center as a stage”(Független Szabad Egyetem, 2021). The second is the period of online protests, characterized by the participants in the following manner: “We’re not giving up the blockade, we’re taking it with us”(Színház- és Filmművészeti Egyetem HÖK, 2020).

In order to express their opinions and demands, the students used the following creative tools:

4.1 *The symbol of the held-up open palm*

This symbol indicated that they want to stop changes without being asked and against their will. The design

of the held-up palm is extremely simple. Anyone can draw or spray-paint around their own palm with any color.

Thus, the held-up palm soon appeared on banners, posters, and T-shirts. As a gesture of solidarity, the company Zerofashion started manufacturing #FreeSzFE masks using this symbol. Thus, belonging to the movement, or solidarity with it, became immediately apparent. From mid-September to mid-January, roughly 15,000 masks were made and sent to supporters. At the same time, the held-up palm also functioned as a living gesture. Artists who wanted to express their solidarity also used the #FreeSzFE tag and the held-up palm at international events, thus contributing to making the case of the SzFE known internationally. At the end of numerous theatrical performances during the autumn, the actors said goodbye to the audience with their palms raised. Many pictures with the held-up palm and the #FreeSzFE tag have been uploaded to Facebook, both from Hungary and abroad.

4.2 *The red and white tape (warning tape)*

On the evening of August 31, the students have gathered to say goodbye to their old university and its management, but, unexpectedly, their meeting turned into joint action. The students occupied the university and placed it under a blockade, symbolically marking their blockade with the instrument that was at hand: the red and white tape used by the police to close off various areas. The red and white tape soon grew into another symbol of the SzFE's resistance: students and sympathizers wore it as a bracelet, tied it to their trouser legs, and glued it to windows. In fact, on October 23, celebrating the 1956 anti-communist revolution, many people wore the red and white tape, leaving out the green from the traditional tricolored cockade.

4.3 *The „hymn” (Secret University)*

A recurring element of the protests is the anthem of the movement. “The adaptation of a folk song, the Secret University (originally ‘Secret Love’) became the musical signal of the university occupiers, [...] and has been sung at every press conference since then” (Nagy, 2021). This choice is also interesting because one of the recurring accusations of the head of the board of trustees is that the education provided at the SzFE is not sufficiently committed to national values and does not nurture traditions. During the protest, the students often touched upon folk traditions and folk songs and the Hungarian literary tradition, thus performatively refuting allegations made against their training.

4.4 *Musical and poetic performances, carnival*

After the occupation of the university, the students organized the symbolic watch. Former and current teachers, graduate actors, artists, and sympathizers stood guard on the terrace of the building. Thus, the facade of the building was transformed into a street stage, where the protesters stood in a disciplined and solemn manner for days, from afternoon to evening. Participants from the street and passersby could feel like spectators or participants at a performance. On September 27, the sympathizers were invited to a peaceful, carnival-like march, led by a giant puppet, followed by the participants with or without costumes, with puppets, dancing, and singing.

The students tried to make all their actions spectacular. When approaching the various state institutions, they reached for the means of allegory. Thus, “the students’ petition was carried by Goddess Iustitia to the Constitutional Court, and by Minerva and a living owl to the Educational Authority”(Nagy, 2021).

The protesters have built a barricade in front of the Ministry of Education and announced their demands on loudspeakers. Well-known actors and directors read out the letters supporting the SzFE (October 19). The loudspeaker is an instrument of power in Eastern post-socialist countries, which informs but also threatens, and is used to maintain order. In this case, however, the protesters have appropriated this device through a situationist *détournement* and sent a message to the political power that refused to listen to them.

The most significant event was the October 23 demonstration, organized in remembrance of the 1956 anti-communist uprising, when an estimated 10,000 people marched at the protest organized by the SzFE. The march had two outstanding moments: the silent procession in remembrance of the fallen revolutionaries and the performance at the end of the march, where, in addition to the speeches, music academy students played Beethoven's Egmont overture, the unofficial anthem of the 1956 Hungarian revolution.

4.5 *Human chain*

One of the most spectacular actions was the human chain through which the students submitted the university charter, which ensures the university's autonomy, to the Hungarian parliament. The human chain started from the university building under a blockade. One by one, the protesters were connected by a piece of red and white tape, and the crowd of several thousand passed on the charter hand to hand for several kilometers and 3 hours. According to preliminary calculations, the human chain would have required 5,000 people, but far more people have gathered.

A large crowd had already gathered around the parliament as well. The folk festivity atmosphere was strengthened by the “catharsis, humor, and precise organization” (Nagy, 2021) of the event. Two weeks later, for 24 hours, a line of cyclists dressed in red and white T-shirts brought 155 charters, tied around with red and white tape, to the parliament. The charters were tied into a chain with red and white tape and placed on the steps of parliament, indicating that the students’ demands are still pending.

4.6 *Relay race*

The national relay race organized on October 3-4 was exceptionally spectacular. The five runners holding torches started the race at the same time. A total of 150 runners ran for 24 hours, covering 1,100 kilometers, during the night and in the rain, so that the next day, on Sunday afternoon, the torches arrived simultaneously at five university towns, where the event was concluded with a small celebration. This entire event was exceptionally well organized. The organizers found enough participants for the hand-off of the torches to take place. Renowned actors, singers, writers ran or participated in the on-site cultural program. The event was professionally broadcasted on Facebook by the students of the television department, with an announcer, studio conversations, and on-site transmission. Thousands followed the broadcast on Facebook, and many remarked that the entire production would actually be equivalent to a final exam.

4.7 *Online visibility and presence*

From the beginning of the movement, students used social media intensively. The most important platform for the university citizens is Facebook, where 16,507 people follow the Független Szabad Egyetem (Independent Free University) page, and the page of the student council’s page (Szinház- és Filmművészeti Egyetem HÖK) has 30,519 followers (as of January 14, 2021). The freeszfe account on Instagram has 11,800 followers (January 14, 2021). An online watch was set up here in December, and there were live broadcasts held by the students, during which the protesters answered the questions they received, earning several thousand likes (between 2,000 and 6,000).

There is much footage of the events, published by online newspapers and on Facebook. Photographers collected photos of the protest on their own pages, various performances were recorded, and independent video works were also made.

Sztrájktevé (Strike TV) was launched in early December and was also available online, broadcasting the free university lectures held by prominent Hungarian filmmakers, art critics, and journalists.

From the end of December, students also broadcasted a one-hour radio program once a week, available as a podcast, discussing university-related events by speaking to participants. The students’ magazine *Az utolsó szám* (The Last Issue) was also published at the end of the year. The Instagram trailer justifies creating the magazine by stating that “the spaces have been taken away from us, so we are forced to create fictional spaces” (*Az utolsó szám szerkesztői*, 2020, p. 2). The freshmen students of the SzFE’s television production department launched a shared YouTube channel entitled *Felmosóvödör* (Scrub Bucket), where 16 videos have been uploaded so far (January 14, 2021).

Students seem to have become aware of the importance of appearances: not only are their actions and events spectacular, but they also consciously shape the image presented by the media with the help of their own channels. The central media broadcasted the events only to a minimal degree, due to which the creative students could enter with good chances “the struggle over legitimization,” which

invariably takes place in the play between public enactments and media images, where state-controlled spectacles do battle with cell phones and social networks to cover an event and its significance (Butler 2015, 19).

5 THE DÉTOURNEMENT OF THE SPECTACLE, OR THE ART OF PROTEST

Guy Debord’s study of the society of the spectacle (Debord, 1977) is in some respects perhaps even more valid today than half a century ago, when it was published. The description of society as a system of social relations mediated by images is especially appropriate for today’s society.

Since our social – both work and personal – relationships are now mediated by IT tools, in certain a sense, we still live in a society of spectacle today. It’s never been more true than today that “everything that was directly lived has moved away into a representation” (Debord, 1977, par. 1).

We are no longer merely the victims of the domination of images but also its active creators. This new development has fundamentally changed the nature of the spectacle. Debord could still speak of the “monopoly of appearance” (Debord, 1977, par. 12), interpreting the spectacle as a concentrated tool of power, which is “the total justification of the existing system’s conditions and goals” (Debord, 1977, par. 6). However, this required state television, radio, and the one-way communication of advertising. By now, the monolithic nature of the spectacle – resulting from the fact that in the 1960s, the monopoly on the production and

transmission of images was in the hands of a few central institutions – has disappeared. The most significant change is not so much the proliferation of TV channels, radio stations, the advent of cable TV or the internet, but an opportunity that is primarily tied to the spread of smartphones and social media, making each user a potential source of news, whose content can reach any part of the world. Thus, even if there is a central news channel or, in some countries (such as Hungary), an attempt to centralize the media as a whole, the competition from alternative, personal news must be reckoned with. Thus, the instrument of the spectacle, the image, can also be an instrument of the individual or groups people, and it can be turned against the central power.

The turning of the spectacle against itself can be called *détournement*, using another Debordian concept. This hijacking “leads to the subversion of past critical conclusions which were frozen into respectable truths, namely transformed into lies” (Debord, 1977, par. 206). Thus, movements such as the struggle for autonomy of the SzFE do not remain a “purely spectacular rebellion” (Debord, 1977, par. 59) but express a realistic critical position through visibility, performance, and private media. At the same time, in such a situation, the goal that Debord considered essential is also achieved, i.e., “to actually possess the community of dialogue and the game with time which have been represented by poetic-artistic works” (Debord, 1977, par. 187). As a result of the *détournement*, the spectacle ceases to be “the opposite of dialogue” (Debord, 1977, par. 18), and space is created where participants can speak in a constructive, socially relevant, and community-building manner with each other. Of course, it is another question whether the representatives of political power actually become involved in this dialogue or prefer to ignore that which is clearer than daylight: the spectacle of protest.

6 CONCLUSION

The nature of social protests has fundamentally changed in the last two decades: unlike in the case of traditional protests, where the category of “we, the people” was delimited by the text, “by their vocalized claims” (Butler, 2015, p. 19), nowadays there is a stronger emphasis on the spectacle and the “embodied performance” (Butler, 2015, p. 19). This change can be related to the spread of social media, which allows events to be mediatized in real-time through personal news channels. As a result, the spectacle that primarily affects emotions is at least as important as the message encoded in the text that primarily affects the reason.

The university citizens of the SzFE are a great example of what Boris Groys has identified as

one of today’s recent developments, i.e., artistic activism (Groys, 2014). Groys carefully distinguishes between two meanings of aesthetics: aestheticization in the sense of design, which makes phenomena more beautiful and thus more consumable, including politics (the aestheticization of politics), as well as aestheticization in the sense of art, which is characteristic of the avant-garde, and declares obsolete phenomena to be rejected as dead, displaying them publicly as dead bodies. According to Groys, artistic activism is typical of our day. It attempts aestheticization in both senses of the word, thus carrying the resulting life-giving tension.

Art activists do want to be useful, to change the world, to make the world a better place – but at the same time, they do not want to cease being artists (Groys, 2014, p. 1)

In my opinion, the #FreeSFE protest can be described as artistic activism. It has an obvious practical purpose and wants to change the world or at least a slice of it, and, at the same time, tries to achieve all this in a spectacular manner, i.e., with the means of the spectacle, the arts, and the creativity characteristic of art. This experiment can even be seen as a continuation of the quest of the Fluxus movement to erase the boundaries between “life” and art.

The protest of the SzFE art students used the means of the spectacle, implementing the *détournement* of the spectacle. Here, the spectacle is no longer a means for central manipulation but a tool for active, creative dialogue and expression. The protest of the SzFE students could also be an answer to the question posed by Schiller regarding how a person who constructs the aesthetic state within himself, or herself, can contribute to a moral turn in society as a whole.

The consistency, courageous perseverance, united action, and, above all, amazing creativity of the students of the SzFE is an outstanding example of non-violent protest. The students have understood from the outset that their reason and their artistically trained sensibilities should be leveraged to affect other people’s hearts and minds. As for the success of the protests and their ability to bring about any real change, the question can only be answered from a later historical perspective.

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The mind in the creative process: The mastering of technical processes, experimenting, breakaway, and the exploration of error and chance as creative strategies in the creation of a work of art

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ABSTRACT: The creative process is somewhat of a labyrinth and unfathomable. There is no recipe for producing a work of art. If one existed, we could all be artists. Even though there is no recipe for producing a work of art, artists do nevertheless resort to means or strategies to ward off panic when faced with the blank sheet or canvas, or a block of stone, wood or metal, in order to achieve the completion of a work of art. Since the process tends to be instinctive and not rational or entirely rational, artists resort to creative methods or strategies to circumvent its difficulties. Thus, mastering technical processes, experimentation, constant breakaway and non-conformity, help overcome the stagnation and the barrier of the conventional and the exploration of error and chance through which it is possible to obtain results that would never have otherwise been obtained. We will approach all this through the examples of the artists Marcel Duchamp, Alberto Giacometti, Philip Guston, Sally Mann, Marlene Dumas, and Anish Kapoor. These are rational ways of acting and which, in short, partially help artists to overcome the challenges they face during the execution of a work of art.

Keywords: Creative mind, Technical processes, Experimentation, Breakaway, Error

1 INTRODUCTION

The inscrutability of the creative process makes it fascinating for a researcher and the art amateur in general. However, for an artist, the complexities inherent in this process lead him to look for ways to get around it or help to overcome the difficulties inherent therein.

Even though there is no recipe for creating a work of art, artists use some creative strategies to overcome the difficulties inherent in creating a work of art. These strategies help ward off or combat panic when faced with the blank canvas or sheet or the block of stone, piece of wood, or metal.

Artists use these creative strategies intentionally and consciously, hoping that in doing so, they will be able to unblock in creative terms, on the one hand, and on the other hand they will be able to shape their ideas without any shortcomings during the creation and execution process of their works of art.

One of these strategies involves mastering the technical processes to be used to execute the works of art. Often undervalued and subject to a derogatory connotation, the technique is essential to complete a work of art fully. Technique and creativity are not incompatible but complementary. If the technique is not an end in itself but a means to an end, it is an

essential asset in completing the work of art. A paradigmatic example of mastering these technical processes in realizing a work of art is that of Marcel Duchamp in his work *Etant Donée*, which will be addressed in this article.

Another strategy involves experimentation, either through the creative use of new technologies and new mediums or through the practice of constant breakaway and non-conformity, to help artists avoid stagnation and overcome the barrier of the conventional and the repetition of formulas in their works of art. In this article, we will depict examples of the artists Alberto Giacometti and Philip Guston.

Through exploring error and chance, it is possible to obtain results otherwise would have never been obtained. These are other creative strategies that artists such as Sally Mann, Marlene Dumas, and Anish Kapoor use very effectively to obtain creative and original works of art.

2 THE MASTERING OF TECHNICAL PROCESSES IN THE EXECUTION OF A WORK OF ART

In our understanding, there are no major or minor forms of art based on the technical supports used in

their execution, but significant or minor works of art, depending on their plastic attributes, regardless of the specific form of art in which they are found in and of the raw materials, materials and the techniques used in their creation.

All artists find a way to express themselves through each medium's unique, expressive characteristics, within their different techniques and possibilities of combinations between them, to obtain the best plastic result possible, according to the aesthetic premises inherent to each work of art.

Obviously, for this to be possible, artists must know and master the different medium and technical processes involved in creating their works of art.

This assumption is valid for any fine arts, including, of course, also those that use the latest digital technologies. They are all unique in their own way. Not thinking about it this way, is to our mind, a terrible mistake.

A notable and paradigmatic example of what we have just mentioned is the work of Marcel Duchamp (1887-1968), as can be verified in his notes and preparatory drawings now published in a facsimile, which is a manual of instructions for the assembly of *Étant donnés*. [Duchamp, 1987] and as a whole, they reveal the meticulous preparation that was the basis for the making of his work *Étant donnés*: 1. La chute d'eau, 2. Le Gaz d'éclairage, which took the artist 20 years to complete.

Duchamp developed this seminal work in almost complete secrecy between 1946 and 1966, leaving the completed piece in his studio when he died in 1968. [Marcel Duchamp *Étant donnés* at Philadelphia Museum of Art, 2009].

According to the Museum's curator of modern art, Richard Taylor, the work of art was only installed in 1969 at the Philadelphia Museum of Art, which it has belonged to since that date. It tripled the number of visits to the museum at the time. [Marcel Duchamp *Étant donnés* at Philadelphia Museum of Art, 2009].

This installation can only be seen by one person at a time, by peeping through a peephole in the door through which a crumbling brick wall can be seen and, in the foreground, one sees a naked female figure lying and holding an electric lamp in her left hand.

Over 20 years, 1946-1966, Marcel Duchamp combined the conceptual part of the creation of this work of art with methodical and extensive research, which ensured he held in-depth knowledge of all the means, materials, and technical processes involved in its execution, in order to obtain a coherent whole in terms of the final work of art, without the interference of any flaw. However, should he have failed to proceed in the manner described above, technical and material flaws could have resulted, which would have raised the question on the conceptual

component and the quality of the final result thereby intended by him.

As Marcel Duchamp is essentially associated with the conceptual approach, mainly with the readymade, and not with a rational and paradigmatic approach in terms of assimilation and mastering of technical processes at the genesis of the work of art, it would appear at first glance, an unlikely choice to use as an example in this specific case, hence the paradigm.

However, this artist proves himself to be meticulous, abundantly methodical in studying the materials and techniques involved in executing this work of art, as can be found in the detailed notes he made. One can study these thanks to the publication of the facsimile of his notebook on the studies of this work of art, which makes it a reference concerning the domain of materials, means, and technical processes in the execution of a work of art.

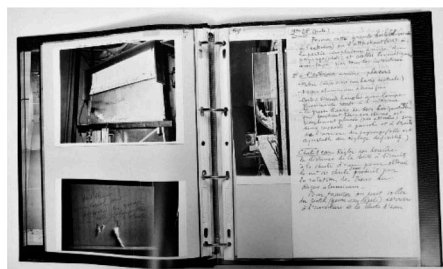


Figure 1. Facsimile of *Étant donnés*: 1. *La chute d'eau*, 2. *Le gaz d'éclairage*, by Marcel Duchamp.

Source: [https://www.mullenbooks.com/pages/books/167937/marcel-duchamp-anne-dharnoncourt-manual-of-instructions-for-marcel-duchamp-etant-donnees-1-la-chute-d-eau-2-le-gaz-d-eclairage?soldItem=true].

In this notebook, Marcel Duchamp did not neglect any aspect or detail for execution; in this way, ensuring no shortcoming would affect the final result so that it would be precisely as he had conceived, planned, and intended it to be.

When one looks at the quality of Marcel Duchamp's work of art based on this work method - which is a work of art set as a reference in his artistic path - one can state that the knowledge, intentionality, and rational mastering of the technical processes and means involved in giving the ideas physical form is an integral and essential part in the process of creating a work of art. It is definitively one of the steps to master when executing it. Only by doing this is it possible to obtain a result that agrees with what is conceived.

However, these technical processes and their rational mastery did not constitute an end for Marcel Duchamp in any stage of the process but rather a means to reach the desired plastic result.

3 EXPERIMENTATION BY BREAKAWAY AND RADICAL CHANGE IN THE PROCESS, IN FORMAL TERMS AND CONSEQUENTLY THE REJECTION OF COMFORT ZONES, AS CREATIVE STRATEGIES IN THE CASES OF ALBERTO GIACOMETTI AND PHILIP GUSTON

The artists Alberto Giacometti (1901-1966) and Philip Guston (1913-1980) are two extreme and paradigmatic examples regarding the radicalism of their experimentalist approach in their formal vocabularies the courage they showed by refusing to continue using a successful recipe in their works of art. These artists intentionally provoked radical deviations and broke away in formal terms in their artistic trajectories, regardless of the adversities that could arise from them in acceptance from the artistic world, critics, the public, and even their peers.

This approach is never without risk, either due to the lack of understanding generated in the artistic environment or the risk of not successfully changing their plastic vocabularies.

The example of these two artists is, however, paradigmatic, since Alberto Giacometti and Philip Guston, in their refusal to continue in their comfort zone - surrealism in the case of the first and in gestural abstractionism in the case of the latter, who at the time was considered one of the greatest exponents in the USA, just as Giacometti was in France to the surrealist movement - initially faced lack of understanding from the artistic world. This incomprehension was from the critics, the public, and their peers. Manuel Botelho states that:

Guston viveu a pintura como viveu a vida, mudando sempre, sem se fixar estrategicamente num modo bem-sucedido. A sua impaciência, o seu inconformismo impediram-no de estagnar.¹ [Botelho, 2007, p. 151].

In this regard, the artist says, “Nenhuma revolução, nenhuma heresia, é confortável e fácil”² [Botelho, 2007, p. 151].

Time, however, came to prove both right. This breakaway, these radical and experimental changes, directed them towards creating the best works of art in their artistic paths. The formal and pictorial solutions that resulted from these radical inflections in their trajectories gave rise to the appearance of plastic and formal languages, which constitute what is now considered the structures of their works of art in

plastic and formal terms. In the case of Giacometti, this change translates into a plastic approach of the human figure, in which it is reduced to the essential, and its characteristics are accentuated texturally, being simultaneously minimalist and expressionist. Giacometti applies this approach to painting and sculpture; his figures are reduced to the essential in their form and treated at an expressive level through an extreme textural approach. Thus, the texture becomes the dominant aspect of this new plastic language, both in painting and sculpture. This characteristic is even more evident when observing his works of art live, as we were able to experience in the great exhibition of his work “Alberto Giacometti dibujo, sculpture, painting” in 1991 at the *Museu Nacional Centro de Arte Reina* in Madrid.

In the case of Guston, his inflection from the path was translated, in the late 1960s, into a figurative approach of an expressionist and interventionist character, respectively by the formal and chromatic accentuation of the forms and the use of themes of social criticism. In a break with their gestural abstraction phase, these works return to figuration in a very particular iconography, in which cyclopean heads, members of the Ku Klux Klan, everyday objects such as bottles, watches, and shoes predominate. [Botelho, 2007].

The availability to proceed in the way mentioned above constitutes the structuring component in the artworks of the most innovative plastic artists. Thus, whenever a comfort zone generated by the success in obtaining plastic results, such as creative strategies, is reached, these artists systematically break and alter the direction in their plastic paths. They proceed in this way intentionally and systematically, refusing the formula, refusing conformity and stagnation, advancing in their artistic paths using processes of trial and error, breakaway, and systematic subversion of the current rules and conventionalisms, in an experimental attitude. They do so, systematically rejecting the comfort zones and routine of a conventional methodology, resorting to this often by chance and deliberate error, as we will see in the examples below.

This constant reformulation and experimentation of new plastic solutions due to breakaway constitutes the driving force in the realization of his works and the consequent multiplicity of formal and plastic solutions that result from this.

4 DELIBERATE ERROR, ACCIDENTAL ERROR, AND CHANCE EVENTS AS CREATIVE STRATEGIES - EXAMPLES OF THESE APPROACHES BY THE ARTISTS SALLY MANN, MARLENE DUMAS, AND ANISH KAPOOR

1. “Guston lived painting as he lived life, always changing, without strategically establishing himself in a successful way. His impatience, his non-conformity prevented him from stagnating”. [Botelho, 2007]. Author’s translation.

2. “No revolution, no heresy, is comfortable and easy.” [Botelho, 2007]. Author’s translation.

One of the most effective ways to get out of creative impasses is to resort to the subversion of current

canons in technological terms, with the deliberate error being systematically practiced as one of the most effective ways to achieve this.

The accidental error or chance that occurs during the execution of a work of art is another way to find a formal/plastic solution that could not be reached otherwise.

Below we address the attitudes of three artists who resort to deliberate or accidental error as strategies to overcome the creative constraints that arise while creating their works of art.

Starting with deliberate error, we have the examples of the artists: Sally Mann, photographer, and Marlene Dumas, painter.

4.1 Sally Mann

In the case of deliberate error, one example in terms of contemporary art in the field of photography is that of Sally Mann (b. 1951), who, despite using a large-format camera and a technique from the early days of photography - the Ambrotype and the Wet Plate Collodion Process, both favorable due to its vast past and great complexity and slowness in its execution, to a conventional use - do not prevent the artist from resorting to the deliberate use of error in order to obtain an innovative plastic result.

The technical and expressive characteristics of these photographic processes provide and have provided her with more opportunities for events of chance to happen, uncluttered by their unorthodox approach as mentioned in the presentation of her book “The Flesh and the Spirit” on the blog of The Contemporary Photobook Magazine, that we transcribe:

Mann’s recent work with the Ambrotype and Collodion wet plate photographic processes provide her with more opportunities for “chance events” to occur that push her images further into abstraction. [Sally Mann – The Flesh and the Spirit, 2015.]

Part of this photographer’s work is done using this subversive methodology. Thus, Sally Mann, taking advantage of the specific characteristics of the Ambrotype and the Wet Plate Collodion Process and its inherent potential for chance events, deliberately tries to err to achieve a more successful and innovative plastic result. Although it is a process in which the artist does not have total control, she makes attempts during the process of making the photos so that the mistakes she makes do not spoil or ruin her work completely, but on the contrary, they “spoil” it only partially so that it becomes more interesting, as the artist says:

My plates are horrible flaw, but of course are the flaws I like, so I pray, in your prayer you

pray, please don’t let me screw it up, but just screw it up a little bit, just enough to make it interesting. [Sally Mann, Preview from Season 1 of “Art in the Twenty-First Century”, 2001].

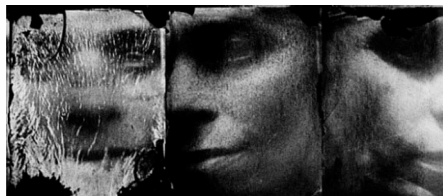


Figure 2. Works from the series the flesh and the spirit, 2010, by Sally Mann.

Source: [<https://photobookjournal.com/2015/11/23/sally-mann-the-flesh-and-the-spirit/>].

In this way, Sally Mann manages to obtain results that she could not obtain in any other way, in a progressive move towards the abstraction derived from the partial destruction of the images due to the deliberate mistakes. On the contrary, it is not a risk-free process, but it is rewarding and effective, judging from the results of the great expressiveness obtained by the artist, namely in her series of self-portraits and other photos published in the book “The Flesh and the Spirit” by 2010.

4.2 Marlene Dumas

In the case of Marlene Dumas (b. 1953), the artist practices a type of drawing using watercolors in a process where chance and deliberate error and even the partial destruction of works are combined in terms of the creative process.

Her process consists of drawing on wet sheets of paper. On these sheets of heavy paper, the artist places water so that the ink then flows over it in a more or less random way. This can be seen from the results obtained, but fortunately, we can also do so by viewing a documentary about the artist, “MISS INTERPRETED (Marlene Dumas),” produced by MM Produkties in 1997, in which the artist draws a picture using this process in her atelier.

It is a process in which the components of randomness and chance play a crucial role. This is because the artist draws with water since it is the amount of water she places on the sheet of paper that will cause the irradiations of the ink placed on the wet paper. In this process, the artist does not have total control of the visual register that she will produce on the sheet; she can only try to direct these irradiations by moving the sheet in the directions she finds most appropriate and occasionally removing

paint using a dry paper, which she presses on the sheet. In addition to the aforementioned, her intention is also to always proceed in a way that she intentionally errs, doing the opposite of the standard when drawing with watercolors, resorting to tricks and trickery as she mentions in the documentary during the painting: “Those cheap tricks ... making Light ... everything you shouldn’t do.” [Marlene Dumas, *Miss Interpreted*, 1997].

The result of her extraordinary work in this technique with human figures and portraits of anonymous and famous people, of a unique and unsurpassed expressiveness, is proof of the effectiveness of this unconventional methodology.

In addition to the aforementioned, the artist also has a series of works called “Rejects” that started in 1994 and consisted of selecting portraits previously rejected from other series in her work. Based on this selection, the artist modifies the works, superimposing them two by two and partially destroying what is on top, cutting the area of the eyes, mouth, and nose, which she constantly changes and reconstructs.



Figure 3. Drawing from the series *Rejects* by Marlene Dumas.

Source: [<https://twitter.com/EmmaCheatle/status/569258145245229057/photo/1>].

The artist mentions what attracts her and leads her to practice this approach in the following terms:

I really like this title rejects because conceptually, if you call something rejects, it is like a failure already, so you can’t really fail because you already acknowledge that you failed. I like that play on the word rejects. [Marlene Dumas: *Rejects*, 2015].

When looking at how she handles this series by constantly changing, destroying, and reconstructing the drawings, she says: “It’s specifically the use of two drawings one on top of another ...”. [Marlene Dumas: *Rejects*, 2015].

The artist cannot use works that no longer belong to her, private and institutional collectors would never let deteriorate or partially destroy works in their possession, so Marlene Dumas has to stick to works in her possession, as she says:

When my works go to other people, I can’t touch them anymore, they are not mine any longer to change, but it’s very important also because the rejects belong to me and are mine, I could change them. [Marlene Dumas: *Rejects*, 2015].

Regarding the continuation of her work in this extreme approach in creative terms, she says that:

I might stop doing this because I haven’t actually been drawing on big papers like this for a long time, so even the rejects might just have its natural end. [Marlene Dumas: *Rejects*, 2015].

Therefore, it is not a matter of interrupting the work due to regret or pressure of any kind; it is simply that there are no more drawings available to proceed with this process of partial destruction of the drawings to create other works. It is a radical approach because to proceed to the destruction, even if partial, of the works of art, there is a need for a great detachment on the artist’s part and a mindset utterly open to experimentation without restrictions of any kind. Very few artists risk taking this type of approach. Marlene Dumas is an exception.

4.3 *Anish Kapoor*

When resorting to chance or accidental error, we have the example of Anish Kapoor (b. 1954), who, in the series entitled “Between shit and architecture” of 2008-2009, used the latest technologies and the most sophisticated programs of three-dimensional printing.

Subverting his standardized use of precision, he created a set of concrete sculptures with great dimensions, richness, and textural diversity, with a surprising result in terms of innovation and coherence concerning his appetite for the omission of the artist’s hand in the design and execution of his works of art when facing the viewer.

Here, the final result omits the sophisticated technology used to obtain it since its creative use generates a result so different from its conventional use that this origin does not show at all for the viewer.

Anish Kapoor, in the 2008-2009 series of works “Between Shit and Architecture,” also known as “Greyman Cries, Shaman Dies, Billowing Smoke, Beauty Evoked” [Imagine, The year of Anish Kapoor, 2009], used the latest developments through the experimental use of a sophisticated computer program, as mentioned above, but in addition to this

component of sophistication, the artist does not neglect something found in his antithesis, that is, something unconventional like the use of an accident or accidental error, accepting it as another possibility in his creative process.

In this series, there are pieces in which some parts of concrete objects were knocked down due to their weight when executed, which the artist, without prejudice, due to the intrinsic quality of the form that resulted, considered it with formal quality and for this reason, they were validated by him as finished works as if that had always been his intention in terms of the objective to be achieved. However, for the viewer, this is the idea that what they have before them results from an intentional process and is not an error or a fluke.

Anish Kapoor's assistant, who transferred the artist's instructions onto a computer program, which operated the machine that made these sculptures, confirms this attitude in the following words:

He loves mistakes, I mean for example that big form over there, the huge cylindrical silo thing, where half of it kind of collapsed during the process, that was not deliberate, that was in fact a mistake, but a mistake that Anish likes. They look like they have been built by some strange and mindless termite, or animal or something. [Imagine, The year of Anish Kapoor, 2009].



Figure 4. Works from the series between shit and architecture, 2009, by Anish Kapoor.

Source: [<https://www.youtube.com/watch?v=a6ex45vAUPU>].

5 CONCLUSION

When faced with the impossibility of strictly rationally controlling the creative process, the mind arranges strategies to circumvent this impossibility, resorting to some subterfuge to make possible some control in this process, even if partial.

There is no recipe for creating a work of art because if it were to exist, one would fall into

its trivialization, and anyone who wanted to be an artist could do so. This is impossible, and it is precisely in this impossibility that the heart of the matter lies. Art is born out of a set of circumstances and events, which trigger the artists' idea, which is the core/origin of their works of art. It is an uncontrollable process based on intuition, instinct, poetics, emotion, in short, a set of factors mainly from the sphere of the unconscious.

The artists covered in this text resorted to various creative strategies to successfully create their works of art, having been successful, as proven by the works of art carried out by them, all relevant in terms of Art History.

Thus, the mastery of technical processes, constant experimentation, breaking away and rejection of comfort zones, and the use of deliberate error, accidental error and chance, provided them with conditions to successfully carry out their works of art. In fact, not being a controllable process by the mind, creating a work of art is based on assumptions such as those addressed in this article that allow for partial control of the same, thus opening a path to success in creative terms.

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The heartbeat, neuroaesthetics, artistic research, and creation through mind and emotions

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ABSTRACT: This chapter reflects on the emerging field of Neuroaesthetics, artistic research, and the connection of mind and emotions in the realm of artistic creation. It also explores the connection between the multidisciplinary field of Neuroaesthetics and the multidisciplinary approach of artistic research while promoting this form of practice-based research methodology for emancipatory strategies within academia. It shows different approaches within fields of Neuroaesthetics, as proposed by Charles T. Wolfe, and describes artistic research by demonstrating the capability of such a methodology. Finally, it reflects on the connection between Neuroaesthetics and artistic research while arguing for a connection between mind and emotion to expand mediated experiences for artistic creation.

Keywords: Artistic research, Emotions, Interdisciplinarity, Neuroaesthetics, Philosophy

1 NEUROAESTHETICS INTRODUCTION

The term “Neuroaesthetics” seems mysterious since it is constructed from two words that appear contradictory at first sight. On the one hand, the word “neuro,” meaning “nerve” or “neuron” (Merriam Webster Dictionary (a)) and, on the other hand, the word “aesthetics,” derived etymologically from “aisthánomai,” meaning “perception or sensation coming from feeling, thoughts or the intellect” (Wiktionary, 2021). Here we can see two terms originating from different sciences, the first from the natural sciences, the second from the humanities. It is precisely because of this collision of the two scientific fields that many questions still exist.

In general terms, Neuroaesthetics is a multidisciplinary sub-category of empirical aesthetics, which mainly addresses studies about aesthetic perception. Empirical aesthetics means an aesthetics of experience, not one concerning a study of taste. Within the research field of Neuroaesthetics, many different branches collaboratively look for new discoveries and answers. These areas range from study fields such as Aesthetics, Philosophy, Psychology, Physics, Engineering, Informatics, Mathematics, and Medicine/Neuroscience and are continually influenced by technological progress. According to Charles T. Wolfe, Neuroaesthetics could roughly be divided into three different approaches until now: the positivist or reductionist, the immanentist or idealist, and the militant or social (Wolfe, 2021a).

Under the positivist view of Neuroaesthetics, so-called descriptive and experimental neuroaesthetics can be subsumed. These two approaches mix the different worlds of science and art and let one approach collide with the other, resembling a neuroscientific view of art by reducing artistic facts to scientific facts (Wolfe, 2021a). Within descriptive neuroaesthetics, our perceptual processing principles are shown, engaging whenever we appreciate or view artworks. This approach operates on the level of knowledge about the operations of our sensual systems and is then connected with reflections about works of art. Within this research, pioneers such as Ramachandran or Zeki have developed different theories, such as “Universal Laws of Neuroaesthetics” (neural mechanisms that are involved in our processes of visual perception) or the “Default Mode Network” (network of regions in our brain that seems to be activated while not actively involved in any task or without much attention being paid), for instance (Roche, Farina & Commins, 2018, pp. 109-113). Within experimental neuroaesthetics, researchers seek to investigate by examining pictures of the brain created by neuroimaging during certain determined situations (to healthy and brain-injured groups), through which we can then see the locations, changes, quantity, and quality of our brain activities (fMRI, PET, CT, MRI, EEG, MEG, etc.). This approach gave rise to theories such as the “Aesthetic Triad” (three different processing stages which are involved in

aesthetic experiences: meaning, emotion-evaluative, and sensory-motor (Roche, Farina and Commins, 2018, pp. 7-8)), formalist (high reliance of visual aesthetic experience on forms), contextual (consideration of the circumstances and contexts surrounding the creation or display of the artwork play a higher role), mimetic (evaluation of art is based on the criterion of a good imitation of the subject displayed), or expressionist (how the artist can convey his/her emotional state through the artwork towards the perceiver) theories (Roche, Farina and Commins, 2018, pp. 113-115).

In contrast to this approach, idealist neuroaesthetics does not want to provide a mere explanation of artworks through neuroimaging of our neuroanatomy and perceptual processing principles but rather would like to act as a mediator between the changing conditions within art and the brain in order to create new circuits (Deleuze in Wolfe, 2021a). Alternatively, as Warren Neidich formulates it within this branch: “What Neuroaesthetics does is to act as a mediator between the mutating conditions of the real/imaginary/virtual space of the external world and those conditions that are mutating in the brain itself at the level of the neurobiological substrate” (Neidich in Wolfe, 2021b).

The last approach, activist or social neuroaesthetics states that “the power of art is to create additionally evolving forms of variability in the environment that couple with the equally diverse forms of the brain’s own variability” (Neidich in Wolfe, 2021a). In contrast to positivist/reductionist neuroaesthetics, within the last two approaches (idealist/immanentist and activist/social neuroaesthetics), we find not a collision but a shared commitment of both research fields, the one of science and art. Thus, social/activist neuroaesthetics additionally calls for social engagement to create different zones through affect and perception rather than mainstream productions (Wolfe 2021a).

Even though there is this duality of the natural and the normative, the actual and the virtual within the multidisciplinary field of Neuroaesthetics, it is still one of high value for future dialogs to achieve sustainable development and cross-fertilization of knowledge.

2 ARTISTIC RESEARCH

According to UNESCO, research and experimental development (R&D) comprise creative and systematic work undertaken to increase the stock of knowledge – including knowledge of humankind, culture and society – and devise new applications of available knowledge. The term R&D covers three types of activity: basic research, applied research, and experimental development. For an activity to be an

R&D activity, it must satisfy five core criteria. The activity must be:

- Novel (to be aimed at new findings)
- Creative (to be based on original, not obvious, concepts and hypotheses)
- Uncertain (to be uncertain about the final outcome)
- Systematic (to be planned and budgeted)
- Transferable and/or reproducible (to lead to results that could be possibly reproduced) (OECD Glossary Term, 2015).

Within this framework, artistic research is additionally often seen as practice-based research. It is a self-critical and self-reflective process in which the researcher creates meanings within the arts while showing the past, present, and future of the process (Hannula, Suoranta & Vadén 2005, pp.10-13). Hence, this process can open new windows for research within academia in general, proposing a dialectical approach between theory and practice (Hannula, Suoranta & Vadén 2005, pp. 10-13, Figueiredo 2020). Whereas, of course, this means a more subjective and non-mechanical way of research, artistic research is also quite changing, uncertain, and often experimental, but it has the great capability to produce artistic knowledge or artistic ways of thinking. It is an active process that can open up, challenge, activate, or expose various ways of thinking, creating, or questioning. Within this form of research, the challenges are ambiguity, multidisciplinary, and changeability, whereas autonomy to the researcher for selecting participating entities is pivotal to form meanings, production, and involvement, rather than formalities (Hannula, Suoranta & Vadén 2005, pp. 151-153).

When looking at the reliability of artistic research, there is a need for adequate research assessment, which often takes criteria from seemingly similar qualitative research. The difference, though, between qualitative research and artistic research is that, in the latter, the complete design and dialogical research process between producing artworks and theory is assessed, rather than only one’s own, personal thought processes and assessments (Hannula, Suoranta & Vadén 2005, p. 159).

Even though the concept of artistic research is indeed quite individual, assessment is necessary, and so these five assessment points from Aura, Katainen & Suoranta provide one proposition as an example: “1. Presenting the research context and delineating the problems. 2. Credibility and explanations. 3. The internal coherence and persuasiveness of the research. 4. The usability, transferability, and novelty value of the results. 5. The meaning and importance of the research results to the artistic and research communities.” (Aura, Katainen & Suoranta 2001, pp. 42-43 in Hannula, Suoranta & Vadén 2005,

pp. 160-162). This open-minded research method allows us to create future scenarios and to imagine through intuitive creativity and reflective and critical thinking possible future applications, challenges, outlooks, or transformations (Gouveia, 2019 and Damasio, 2021).

Finally, following the UNESCO OECD Glossary Term definition from 2015, artistic research can fulfill the five criteria of novelty, creativity, uncertainty, systematics, and transferability of an R&D activity.

3 BACKGROUND AND MAIN RESEARCH FOCUS: CREATING THROUGH MIND AND EMOTIONS WITHIN THE ARTISTIC FIELD

Up until now, there has been no fixed definition of the term “emotion” within the different sciences (Plamper, 2012, pp. 11-19). However, when theorizing about this term, it seems necessary to at least propose a definition in order to be able to hold a fruitful discussion. According to the Merriam-Webster dictionary, the definition of “emotion” is “(a) a conscious mental reaction (such as anger or fear) subjectively experienced as strong feeling usually directed toward a specific object and typically accompanied by physiological and behavioral changes in the body (b) a state of feeling (c) the affective aspect of consciousness” (Merriam Webster Dictionary, (b)). Already from this definition, we can see a variety of fields of studies (such as Psychology, Neuroscience, Medicine, and Philosophy) involved in the research about emotions, and we can reflect on questions in other fields in which emotions participate as well (such as Engineering, History, Sociology, Computer Science and Art & Design) (Plamper, 2021, pp. 11-19).

In particular, within the field of Art & Design, emotions and feelings seem pivotal for intuitive creation and expression. Thus, creating works of art or design appears to be only possible within the conjunction of emotions but necessarily connected with the mind.

According to Antonio Damasio and Lisa Feldmann Barrett, emotions and feelings are deeply linked to our minds, physiologically and psychologically. When looking at the relation between the body, mind, emotions, and feelings from a philosophical standpoint, René Descartes and Julian Offrey de la Mettrie are both worthy of mention, which Damasio seems to merge. Damasio’s neuroscientific work proposes a connection between body, mind, and emotions and feelings. The neuroscientist rejects Descartes’ substantial Dualism, according to which there are two different substances: matter (extended) and mind (un-extended). This means that the human being can perceive reality through his intellect and is trying to withdraw from the senses.

Additionally, Damasio does not pose mechanical and deterministic materialism on human nature, as De La Mettrie did. However, the neuroscientist rather focuses on the connection between his biological and scientific way of research in conjunction with emotions, feelings, mind, and body (Damasio, 1994, Damasio, 1999, Damasio, 2010, Damasio 2018, De La Mettrie, 1996, Descartes, 1901, Descartes 2008, Hatfield, 2018, Robinson, 2017 and Smart, 2017). Barrett’s psychological work emphasizes the idea that our emotions and feelings are connected to the physiological circuits of our brain. Thus, a separation between reason and emotion as separate entities does not add up to a sound conclusion, while there is still more research to be performed in relation to culture, technology, language, context, bodily changes, and the complexity of our emotion circuits (Barrett, 2017 and Heaven, 2020). According to David Eagleman, the concept of interaction is key to our understanding of the systemic relation between brains and bodies and humans and their world. Every single brain and body scale or layer interacts with every other one in a connected and live-wired way (Eagleman, 2021, pp. 250-51).

When applying artistic research within the relation of the mind and emotions, game art, especially digital gaming, can promote expansion within reflective thinking. Digital games, hereby meaning all forms of electronic/computer-based games (regardless of the hardware used) possess the ability, through the combination of their interactive use and information technology, permitting action and observation while motivating through self-efficacy and causality, to influence our psychology in terms of behavior and experience (Melzer, 2020). Additionally, immersive applications of digital games such as VR (virtual reality) or AR (augmented reality) can promote an experience beyond the visual and can enable the inclusion of other senses for expanding our critical reflections (Krajewski, 2021). Moreover, gaming facilitates a transdisciplinary approach that presupposes research based on multiple areas and knowledge while critically thinking and avoiding the specialization “disease” and can thus impact academic and cultural studies (Gouveia, 2020b, Kubota, 2017 and Skorton & Bear, 2018). Additionally, Gouveia proposes through a transdisciplinary approach within art- and design-based research that “[t]ransmedia experiences can be designed as rich and meaningful environments where participants connect and communicate with various perspectives and points of view” (Gouveia, 2019, p. 18). “[I]n transmedia aesthetics the remixing of languages, media platforms and systems of play and game reign in a recurrent parody of the capitalist system” (Gouveia, 2020b, p. 27).

Linking now the approach of arts-based research with the field of Neuroaesthetics, we can see a connection through their multidisciplinary nature. Therefore, cross-disciplinary research can expand our possibilities in mediated experiences and let us critically reflect within the self-reflective process and our social engagement through dialogs. This is crucial within the emerging field of Neuroaesthetics since, in the last decades, a new culture called “Neuroculture” has emerged due to fast progress in research and understanding about how our brain works. This progress influenced new ways of thinking and changed knowledge about concepts in ethics, law, economics, sociology, philosophy, art, and religion, and it gave rise to fields such as Neurophilosophy, Neuroethics, Neuroeducation, Neuroeconomics, Neurotheology, and Neuroaesthetics (Huston, Nadal, Mora, Agnati and Cela-Conde, 2015, pp.1-18). Basically, Neuroculture puts the science of the brain in the focus of the investigation, which in turn brings about a reassessment of the humanities that should be joined with the sciences (Huston, Nadal, Mora, Agnati and Cela-Conde, 2015, pp.1-18). Whereas there is a critique about the value added from artists to scientists, since science should provide an objective account by minimizing subjectivity as much as possible (Roche, Farina and Commins, 2018 and Lauring, 2014, pp.1-12), we can see that many artists today find the integration of interdisciplinary fields of studies and work within the realm of art and science conducive to opening up discussions or presenting their artistic research as a way of contributing to core questions of life (Gouveia, 2020a). Plus, as Tolstoy also claimed: “Science and art are as closely bound together as the lungs and the heart so that if one organ is perverted, the other cannot act rightly.” (Tolstoy, 1962, p. 210). Additionally, through recent technological, cultural, and scientific developments, a danger of human or social subjectivity could be noticed (Berardi, 2021). Therefore, there is a need for diversity, which presupposes a form of subjectivity.

4 ANNA UNTERHOLZNER’S DOCTORAL PROJECT, *THE HEARTBEAT*

As we can see in the text above, artistic research is often one of practice-based research. Hence, by only talking about the theoretical part, the text would be incomplete. Therefore, the personal exploratory process of the research of emotions and Neuroaesthetics will be shown in this section. In 2019, a doctoral project was started by the author at the University of Fine Arts, Lisbon (Multimedia Art affiliation), under the supervision of Prof. Patrícia Gouveia, by engaging in theory and practice for a thesis entitled

“Gaming, Art and Emotions: The Challenges of Neuroaesthetics.” Within this project, the author tries to understand the means of emotion within interdisciplinary arts-based research experimentally. In general, the research focuses on transdisciplinary art and design territories that merge arts and emotions, neuroaesthetics, gaming, interactive media, and gender equity. Additionally, the author is especially investigating the senses and thereby trying to work transmedially, mixing different techniques (old and new media) and connecting different areas of studies into visual variations.

One project entitled *The Heartbeat* displays a heartbeat recorded by an echogram from a cardiologist in different audiovisual ways. These various (less than one minute long) short movies explore the topic of emotions in relation to their different environments and are set as one of the main doctoral projects in progress. In the first version, a recorded heartbeat draws its own story through creative coding, with circles depending on the amplitude until the sound ends calmly (Herz, 2021). In the second version, the recorded heartbeat is also drawing through creative coding, with the difference that it has a sort of error within its computational language, and so it has different visibility and different sound (Coração, 2021). In the other versions, the sound of the heartbeat is connected to moving images, mainly of the water element in different states (La Mer, 2021 and Il Mare, 2021). Within this project, Christian Boltanski’s “Archives du Coeur” can be linked, about which he once said that the heartbeat symbolizes our disturbance and fragility, and at the same time is a self-portrait and a mirror of our finiteness (Boltanski (a) and (b), 2021). Another example of previous artistic research into this idea of precariousness of life symbolized by the beating of the heart was Bill Viola’s video/sound piece named “Science of the Heart” (Viola, 1983), where the artist showed an installation about rhythms of the human heart.

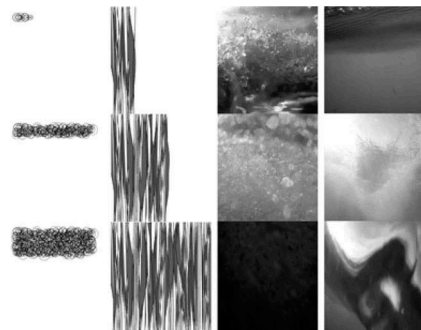


Figure 1. *The Heartbeat* by Anna Unterholzner, 2020-2023.

5 FUTURE RESEARCH

Other current projects also focus on transdisciplinary reflections about Neuroaesthetics, emotions, and the exploration of our senses. Three projects in process can be described here: *Mirror Neurons and Nature Feelings*, *Heart&Brain Pixel Game*, and *Neuroculture?*

In *Mirror Neurons and Nature Feelings*, our neuronal processes within emotional responsiveness in different nature settings are being explored. In a 3D low-poly world, the player can explore the environments via a pink mirroring sphere. Whenever the gamer approaches a low-poly sphere with neuronal patterns, different expressions of emotions can be experienced audibly. An inspirational linkage within this project is the game *Everything* - here in the form of a Gameplay Film narrated by Alan Watts (*Everything, Gameplay Film*, 2021).

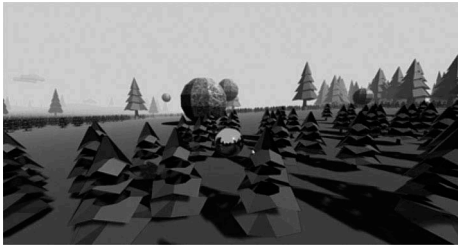


Figure 2. *Mirror Neurons and Nature Feelings* by Anna Unterholzner, 2020-2023.

In *Heart&Brain Pixel Game*, feelings can be explored by a heart and a brain in a 2D platformer game. The player controls the heart and the brain simultaneously, with the difference that the heart can jump higher and go faster than the brain and that the camera sticks to the brain. Only if both the characters make it to the end can the player get to the next level. In the next level, the other organs will follow, making it more difficult to succeed (Trailer *Heart&Brain Pixel Game*, 2021). Here we can link the game *'Ere be dragons*, which is a developed game that works with the interiority of the body by measuring the performance of the heart while the player is interacting with the game and the exteriority of the analog world for health improvement (Davis, Moar, Jabos, Watkins, Riddoch, and Cooke, 2006).

Lastly, in *Neuroculture?* small sculptures were made which explore the connection between neuroculture, language, logic, environments, and organs. Within the choice of the style, Tatsuya Tanaka and

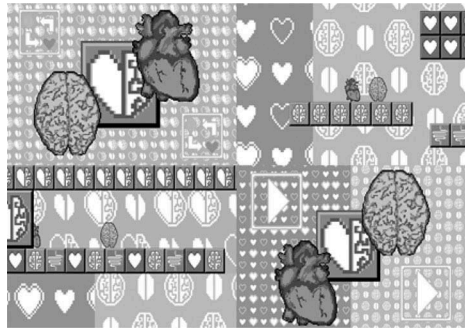


Figure 3. *Heart&Brain Pixel Game* (first level) by Anna Unterholzner, 2020-2023.

Thomas Doyle and their miniature art can be linked here (Tatsuya 2021 and Doyle, 2021).



Figure 4. *Neuroculture?* by Anna Unterholzner, 2021-2023.

Future research within this project will also try to make these concepts more transferable and/or reproducible for the artistic community regarding the topic of “emotions.” Therefore, the question of how to expand mediated creative experience through the use of emotions is at the center of further investigation.

6 CONCLUSIONS

Artistic research can be an exploratory process that enables deeper reflections through the connection of mind and emotions and subjectively promotes reflective thinking for critical assessment within social engagement through dialog. It engages in cross-fertilization of knowledge throughout all manner of disciplines, deepening and opening discussion and creation so that we “have the courage to use [our] own reason” (Williams, 2018), as Immanuel Kant taught us. While exploring emotions and

neuroaesthetics, Anna Unterholzner's practical projects in progress presented in this article attempt to reflect on the mutating or changing circumstances of the real, the virtual or the imaginary of the exteriority, as well as the variable conditions of the interiority, that are changing within our brains at a neurobiological level and especially through our emotions as the result of an experimental, transmedial, and transdisciplinary approach. Some of the artworks presented here were made shortly before the Covid 19 pandemic started or during the following year, when we human beings could feel how quickly life can change and, in Joan Didion's words, "you sit down to dinner and life as you know it ends. In a heartbeat. Or the absence of one." (Didion, 2012, p. 63).

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Iannis Xenakis' drawing expands the morphological intuition-thought inside musical composition

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ABSTRACT: Drawing can reinvent musical issues. This practice of drawing was named graphic score, and various composers and artists developed it during the XX century, such as Cornelius Cardew or John Cage. However, Iannis Xenakis' drawing can be distinguished from a widespread idea of graphic score: visual notation to be creatively interpreted or final notation for writing music. Then, the investigation aims to indicate that Xenakis' drawing is a morphologic key moment inside the composition process to find musical creation. When Xenakis expanded his musical issues in the morphologic field, it was possible to sketch sonic forms and interactions that conventional score did not allow to envision. Afterward, as drawing evolved in an idiosyncratic manner, the musical discoveries were transcribed for staves, becoming legible for the orchestra. Therefore, to demonstrate how drawing can unravel musical issues within the composition process, the investigation analyses Xenakis' creative mind in two moments: *Metastasis* and *Terraktorch*. The research recognizes drawing as a practice that unfolds a morphologic intuition-thought, in which the composer can discover new gestures, forms, and dynamics. Thus, the article reminds us that drawing can be a relevant practice within the musical composition, in which there is no choice between graphic score or conventional notation, but both can be complementary in musical creation.

Keywords: Iannis Xenakis, Drawing, Graphic score, Musical composition

1 INTRODUCTION

During the 20th century, musical composition was innovated by several drawing experiences. Composers and artists, such as Cornelius Cardew (1936-81) or John Cage (1912-92), explore shapes and visual forms to compose or represent sounds. This practice was commonly called graphic score.

However, Iannis Xenakis (1922-2001) developed a unique musical work through drawing, which can be differentiated from the generalist idea of graphic score: visual notation to be interpreted creatively by musicians or final notation for writing music on the frequency spectrum.

Then, the investigation aims to indicate Xenakis' graphic score as a drawing crucial moment within the process, which allows expanding the morphologic intuition-thought, discovering the composer's musical creation.

After an extensive study of Xenakis' work in architecture and music, this research selects a group of essential drawings for viewing and focuses on Xenakis' long interview with Bálint Varga, in which it is

possible to capture glimpses of Xenakis's creative directions, while the composer was approaching various works, explaining musical issues and detailing some aspects of composition, throughout the whole book. Therefore, to understand how drawing expands the composer's intuition-thought, the investigation analyzes what could be Xenakis' creative mind in these two moments of drawing: *Metastasis* (1953-4) and *Terraktorch* (1965-66).

In *Metastasis*, the morphologic gesture formalized the creative impulse of a sound mass. It was an innovative form of composition without using traditional modes, such as a chord or melody.

In *Terraktorch*, the sound mass evolved in a variety of gestures, revealing its expressiveness. Moreover, Xenakis created a sonic topography of musicians, in which the audience was inserted. While the composer was reinventing the conventional concert experience, the drawing's gesture was also moving and shaping inside the audience's spatiality.

The research expects to clarify how drawing is a creative part of musical composition. Drawing is a morphological field that allows the expression of

new gestures, the modulation of sonic forms, and the reinvention of musical structure. In this way, conventional notation and graphic score can be combined in order to create music.

2 DRAWING AS A CRITICAL MOMENT WITHIN A MUSICAL COMPOSITION

Musical notation can be useful support for writing sounds, as well as for reading them. Also, it can be a workspace for creation, in which the composer can unfold sonic ideas, elaborate possibilities, and find musical discoveries.

Western musical notation started in the 9th century as a useful task for remembering melodies. Then, the text was accompanied by little gestures that resembled the melody. These point and linear marks that followed the text were named *numes*. (Cit  de la musique, n.d.)

Afterward, when polyphonic music emerged, two voices needed to sing in tune. Thus, the notation began to measure the sound, indicating if it was a half note, whole or double, and to determine the rhythm. (Cit  de la musique, n.d.)

Whenever music evolved, notation followed its transformations until it became an established practice at the end of the 18th century. Today it is still a current practice, this conventional notation that organizes musical indications on staves. (Cit  de la musique, n.d.)

In the 20th century, composers and artists explored beyond the musical limits by including industrialized sounds and everyday environments, as well as by using new processes, such as sound recorder and electronic sound that offered different compositional modes.

While music was dealing with these sonic challenges, in parallel, notation was being reinvented in a revolutionary way. For diverse reasons, experiences were developed around the idea of a graphic score: structure allowed to inscribe electronic and concrete sounds that were characterized by the continuous variation of the pitch; forms interpreted as sound can generate creative and unexpected new gestures in music; presentation could offer subjective indications that encouraged a freer interpretation for the musician.

After all, the graphic score was developed by each composer, following each one's personal experience of sound. In this way, the graphic score innovated diverse issues of musical composition.

In the case of Iannis Xenakis, the composer started to draw inside the composition process in order to expand sonic intuitions, as well as to evolve musical thought. Xenakis explained:

it was more natural for me to draw [...]. I knew traditional solf ge, but a certain freedom of thought could not occur that way. I was convinced that one could invent another way of writing music (Kannach & Lovelacey, 2011, p. 96).

In this way, Xenakis' graphic score was a crucial creative moment inside the musical process. Then, the discoveries were transcribed to conventional notation to be played by the orchestra.

Thus, Xenakis developed an idiosyncratic drawing to discover ideas and gestures that reinvented traditional aspects of music.

2.1 Morphologic intuitions

Xenakis' musical work was inspired by a listening experience while living in Greece, during a demonstration against the Nazi occupation, as he remembers:

I listened to the sound of the masses marching towards the centre of Athens, the shouting of slogans and then, when they came upon Nazi tanks, the intermittent shooting of the machine guns, the chaos. I shall never forget the transformation of the regular, rhythmic noise of a hundred thousand people into some fantastic disorder[...] I would never have thought that one day all that would surface again and become music: *Metastasis* (Varga, 1996, p. 52).

Metastasis (1953-4) was a starting moment in Xenakis' music. Revealing the *sound mass*, a musical notion that evolved throughout the entire work of the composer. (Varga, 1996)

In *Metastasis*' score, it is possible to contemplate how musical intuitions can happen in the drawing.

At this moment, Xenakis was concerned with a specific musical issue: chord transition. How to make a continuous change between the chords? instead of the abrupt jump between two defined sounds, as is the traditional practice. (Varga, 1996)

Xenakis explains that *Metastasis* was developed on instinct. There was no clear idea. It emerged from a visual fantasy of straight lines. (Varga, 1996)

Then, the drawing (Figure 1) offered a morphological space to expand the composer's fantasy, allowing us to visualize what this idea could be.

The straight lines were drawn on graph paper, on which it was measured the musical notes (vertical axis) over time (horizontal axis). In this field, every linear gesture became a sound, changing continuously from one note to another. Xenakis figured out that each line could be played with a string instrument, using the glissando technique to extend the sound.

Thus, *Metastasis* was a composition of glissandos, in which, Xenakis explains, "I set out to create a timbre evolving in space, not through the addition of other instruments but keeping to the strings" (Varga, 1996, p.141).

In this group of string instruments, Xenakis reminded that all musicians were soloists because each one received a linear path that offers an

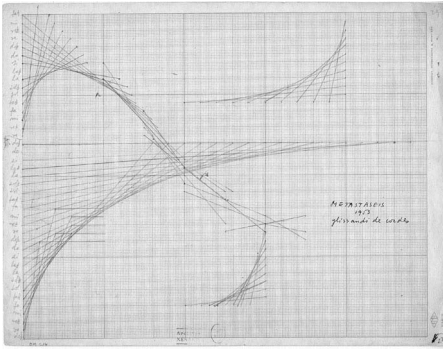


Figure 1. Iannis Xenakis, study for metastaseis, 1953, pencil on paper, 24.1x31.7 cm, © Copyright collection famille Iannis Xenakis.

unrepeatable score. (Varga, 1996) In this way, Xenakis drew a shape that develops and transforms in musical time and drawing's space, in which individual performances formed a joint action.

On working with shapes, Xenakis explained that it could start with an idea and then be discovered as the shape grows. Moment by moment, gesture by gesture, the sonority is revealed, transformed, and formalized. (Varga, 1996) So, on the wide and millimeter surface of the paper, the composer can simultaneously visualize the macro form and micro details, allowing the composition of shapes, forces, expressions, and sound relationships. While the composer detailed the sonic gesture for each musician, he discovered the curved shape and appreciating its sonority.

After all, the fantasy of linear gestures turned out to be the *sound mass*, an innovative way to compose music. The drawing, made by diverse gestures, shapes the characteristics of sound: timbre, intensity, texture, density, tension, balance, and other musical issues relevant to the composer.

Thus, *Metastasis* changed the musical paradigm from the traditional tonal harmony to a new atonal sonority. It revealed the possibility to compose without chords nor melody. The title *Metastasis* reminds the importance of this finding, indicating the possibility to surpass the solidity of the chords. *Meta* means beyond, and *stasis* refers to the immobility: beyond immobility. (Varga, 1996)

When Xenakis envisioned the fantasy of lines, it was a morphologic intuition to be developed through drawing, in which gesture and the field emerge as a solution. In this way, the composer can contemplate, modulate, and listen to how the gesture and mass sound like. Moreover, the morphologic intuition can be revealed and become present in musical composition.

2.2 The spatiality of sound mass

For Xenakis, it was important to remain free along his musical journey. Then, instead of repeating the

music accomplished in the past, by other composers or by himself, in previous works. Xenakis prefers the challenge of discovering new directions. (Kannach, 2012) In this way, the sonic mass will be developed in different experiences, according to the composer's creation. So, the sonority was continuously reinvented through geometry, functions, probabilities (Stochastic Music), computer program, cloud events, and combination of sets (Sieve Theory).

The composer used mathematical functions to form sonic gestures and probabilities as a way to generate cloud expressions that would not be possible to conceive in another way. But in mathematic or geometry, Xenakis reminded that his music was formed by listening, reassuring that aesthetic was the main validation for his sonic experiences and decisions. (Varga, 1996)

Following the musical direction of Xenakis, another essential issue was to create a more abstract scale, not only for pitch but a scale that includes all the diverse characteristics of sound.

In Xenakis' Sieve Theory, the composer combines values from any aspect of music. These are organized into sets, in which the elements are classified to establish a relationship between them. (Varga, 1996) So, the tonal scale was put aside, but the composer explains that pitch could not be used randomly because the frequency, as continuous range, is neutral. Thus, when the pitch values were inserted in the set, it was relevant to conceive their relations. (Varga, 1996)

At a certain moment, Xenakis composed *Terre-ektorh* (1965-66), a symphony for an orchestra with around 80 musicians. It was a special concert in which the audience and the musicians were mixed so that the listener could be surrounded by sound. (Kannach, 2011) Each listener was situated inside a sonic topology, in between different instruments, playing a sound composition in time and space.

In this way, Xenakis composed a sonic experience in which the composer took into account the place of each instrument. Then, the sound could pass from one musician to the next, playing a trajectory in space; or it could be played here and there, in which sound appears in any place, or the sound could be performed simultaneously, everywhere.

Every seat received a unique experience of the expression of sound in space: direction, velocity, acceleration, order, disorder, and other musical possibilities as timbre, texture, density, high and low frequency. The situations can be diverse. If the concert had been played more than once, the audience could return and choose a different seat, and it would be another experience in the same concert.

In *Terre-ektorh*, the notion of sound mass evolved. While observing the studies (Figure 2 and Figure 3), it is possible to contemplate how sound unfolds in

time, but even more marvelous is to envision how the sound will expand in the real space of the audience.

Xenakis formalized singular ensembles, in which gesture by gesture, the composer shaped the density, texture, intensity, duration, and other aspects that came into existence during the drawing process. The draftsman's gesture can release expression, variation, subtlety, and freedom that will surround the listener's sonic spaciousness.

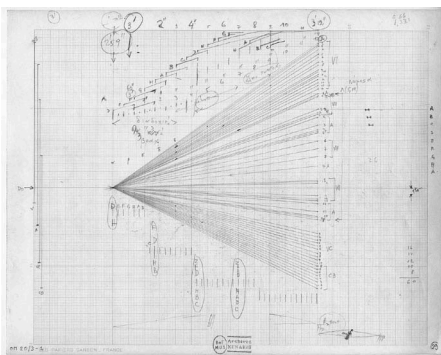


Figure 2. Iannis Xenakis, study for Terretektorh (glissandi) c. 1965-66, pencil on paper, 21.6x29.6 cm, © Copyright collection famille Iannis Xenakis.

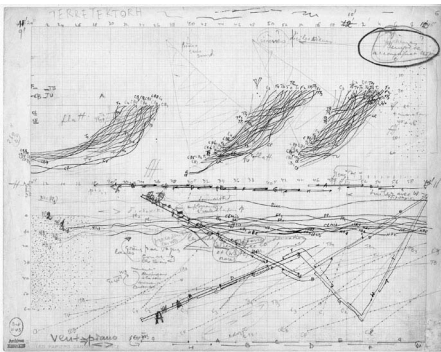


Figure 3. Iannis Xenakis, study for Terretektorh, c. 1965-66, 21.5x29.6 cm, © Copyright collection famille Iannis Xenakis.

The expression of *subtle points* can be played as pizzicatos or short glissandos. The *long linear gestures* can be performed as glissandos and tremolos, the *discontinuous traces* can be expressed as a repetition of pizzicatos, and points and lines can form the *cloud events*. (Varga, 1996)

The mass was not a uniform expression. Instead, it was shaped by the intensity and amplitude of the hand gesture and molded by the composer's ideas and issues about "continuity, causality, mass and not-mass" (Varga, 1996,

p.79). In this way, drawing practice expanded the morphological intuition and thought, in which the composer could find his own music.

The drawing's plane was a freer compositional space. It allowed discovering expressions, characteristics, and dynamics of sound, in new and unexpected ways, avoiding the obligation of traditional modes of composition. In this way, Xenakis aspired to encounter a more general structure that could include the old and new scales, even the modes from other cultures, could be played in the same score. (Varga, 1996) Thus, on this abstract plan, it would be possible to write a musical composition that follows the creative direction of the composer, whether it included melody, sound mass, and other forms yet to be discovered.

3 CONCLUSIONS

It is relevant to distinguish the graphic scores that occurred during the 20th century to recognize innovative musical contributions. In the case of Iannis Xenakis, the graphic score allowed him to unravel traditional composition issues and discover his own musical creation.

In the morphologic space, the composer can project sonic intuitions, elaborate musical thought, and gather findings. As drawing can evolve in an idiosyncratic way, including personal expressions, its presentation can become subjective. Then, musical findings can be transposed to conventional notation so that musicians can interpret them.

In *Metastasis'* graphic score, Xenakis developed his morphological intuition. The composer's fantasy of straight lines would become a surprising sonic mass. It was an innovative way to modulate the sound, unraveled the musical paradigm: how to create a continuous change between chords without the sudden jump between sounds.

Terretektorh's graphic score contemplates diverse possibilities in the morphologic field. It is possible to compose expressions of the sound mass without using the traditional composition process. In addition, it revealed how drawing can become an expression in the real space of the concert.

Xenakis' graphic score demonstrated that traditional musical composition can be innovated by including a key moment of drawing in its process. Inside the musical process, the graphic score is a creative interval in which drawing can expand the morphological intuition-thought.

On the paper, the glimpses of the creative mind and the continuous flow of ideas can be fixed for a longer period, allowing the composer to contemplate and envision what form may arise. Also, the blank paper offers an open field without previous rules. The gestures and forms can be unfolded, and the musical structure can redefine its characteristics and dynamics, following the composer's musical issues of the composer.

In this way, Xenakis draws music in graphic scores and writes its findings in conventional notation, combining freedom and precision to expand the composer's creation.

ACKNOWLEDGMENT

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Part IV
The Humanities



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The project of a seed: 7 small steps to awaken sacred creativity

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ABSTRACT: In a world permeated by multiple stimuli in all directions and where almost everything seems to become valid, could we still be interested in sacred creativity? What is meant by sacred creativity? And what exactly is the role of our emotions and thoughts in this purpose? Focusing on the vast field of spirituality, arts, and architecture, we will be following selected case studies that could light up our steps through this specific path, metaphorically named as 'the project of a seed.' The trajectory is presented not as a conclusive investigation but as a set of impulses focused on the sacred axis of creation.

Keywords: Sacred creativity, Creativity steps, Sacred nature

BEGINNING EXERCISE

Read this Brancusi quote and repeat it silently: ***"It's not hard to make things. What's difficult is putting ourselves in the state to make them."*** (Lewis, 1957, p.43) This citation may be a golden key for those who aim to create like him. Can it lead us towards sacred creativity? What exactly is the role of our emotions and thoughts in this purpose?

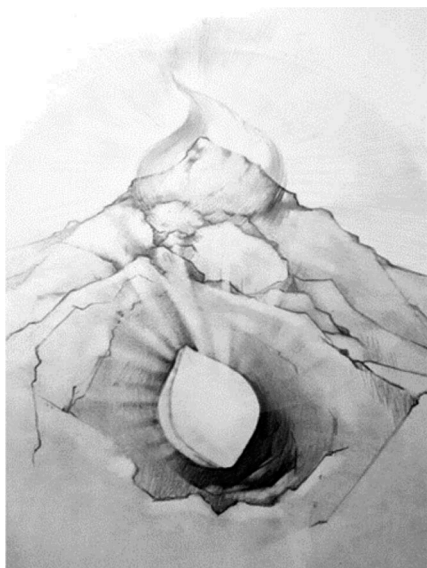


Figure 1. Untitled. Friar Renatto (n.d.).¹

1 COMMON SOIL

What do we mean by *Sacred Creativity*? Could we still be interested in creativity as *mediation between the spiritual and material life*? Is it possible to define archetypal steps in order to awaken this kind of creativity? And could these steps be recognized in the essence of Nature as a part of Creation's sacred axis?

It is not an easy theme to introduce, especially with the necessary neutrality towards two aspects: on the one hand, we could be disregarding some really important 'states of the art' of so many cultures, religions, or philosophical approaches; on the other hand, at some point, we would have to run the risk of referring the affiliation of Creativity to the 'Source of Creation,' at a time when the existence of God as 'Creator' is not 'common ground' for everyone.² In allusion to Mircea Eliade (1992), we could simply begin to recognize 'sacred' as opposition to 'profane' creativity. But it was also the author of *The Sacred and the Profane* himself

1. All images in this article are unpublished and provided by their author. Friar Renatto del Casto Corazón is a monk of the Grace Mercy Order living in Light-Community Figueira. He is dedicated to grupal life through the arts, music and agriculture.

2. As an example of the recognition of this affiliation, see 'Letter to Artists' by John Paul II (1999). As a representative of the opposite remember the expression 'The death of God' by F. Nietzsche.

who revealed something unexpected: an interpretation of the modern artist in the quest for the unrecognizable sacred, even when the artist is not conscient of this, even if he might be religious or not (Eliade, 1995). It is then that Brancusi's quote was used as a beginning exercise within the need to find a space of neutrality. To place ourselves within common soil, and, from that space, we might reach out to unite our consciousnesses with the essence of creativity. Brancusi art was also one of the examples used by Eliade, as an illustration of that which is sacred but not obvious, so at the end, this might become a clearer guideline. What more could be added to unite our 'mind and emotions' in this theme, even if we are 'believers' or not, or even if we do or do not profess the same religion?

The first part of this introduction tries to announce the nodal questions and successively restrict the scope of the response. Like egg boxes that fit inside of one another, the following question answers the previous one. At first instance, we might associate the word 'sacred' with something strictly religious, and, in that sense, 'sacred creativity' could be immediately associated with the production of 'religious artifacts,' then connected to a specific symbolic realm. As we have seen, this is not the point that we are eluding to, and this is why the second question refits the definition as *mediation between spiritual and material existence*.³ In fact, that was the original meaning of 'religion' as 're-ligare,'⁴ re-connection, or re-establishing a vertical connection between earth and sky. This leads us to the third question - how to (re)awaken a 'way of doing' that allows the spirit to inhabit matter? Is this exclusively for the religious office? What could be the role of an artist or an architect in the manifestation of the sacred? The last introductory question represents the hypothesis that will be tested throughout this essay. If we accept nature as a sacred creation, maybe we can shine some light over 'sacred creativity' just by uniting our consciousness with the essence of its growth process.

3. That was the meaning of 'music' for Beethoven (Brunton, 1970).

4. "popular etymology among the later ancients (Servius, Lactantius, Augustine) and the interpretation of many modern writers connects it with *ligare* "to bind fast" (see *rely*)" "from Latin *religare* "fasten, bind fast," from *re-*, intensive prefix (see *re-*), + *ligare* "to bind" (Harper, 2021, religion)



Figure 2. Untitled. Detail. Friar Renatto (n.d.).

2 NOURISHING PURE SEEDS

When we start a specific design project, if it means to really be *creative*, we are always placed before the mystery of the unknown. We may say that it is like having a seed within our hands, without knowing exactly that which will one day sprout from it. Somehow, we start to recognize the outside limits of this seed – representing that which was given to us as data. If we are beginners, we need clear and simple data - pure seeds, easy to grow. If we are veterans, maybe we are already able to lead complex situations - for example, how to make a forest grow in a desert region? In any case, are we conscient in regards to how we will be nourishing our seeds?

In this first case study, let's take the experiences of Masaru Emoto [1943-2014] with water crystals. Emoto was a scholar of water phenomena who started to ask himself if there was a way to express the different natures of water since the planet holds this condition of having an altered natural state, even if the water looks all the same in appearance. With this goal, during the 1990s, he began to create some laboratory conditions to freeze water from several sources and photograph the physical reality of the water crystals. He continued deepening his research by photographing water that had been exposed to different experiences - certain words, forms of music, and even prayer. The results verified, documented, and published in several books such as *The Messages of Water* (Emoto, 2004a), were always the same: he could continuously observe beautiful crystals formed after positive words, good music, or pure prayers; on the contrary, he observed disfigured crystals formed in situations contrary to these. In his books, we can also come into contact with that which seems to be the main archetypal form of pure

crystal water - a hexagonal configuration pattern that expresses multiple form variations. We can also follow Emoto becoming an expert interpreter of this pattern's different subtle 'crystal faces' for each positive context: "the crystal looks like two gates being opened," he said about water exposed to a mythological stone gate photo. "This flowing melody by Bach (Air on G string) is well represented by this crystal," "the word 'angel' resulted in a ring of small crystals" (Emoto, 2004b, p. 111, 19, 9) were additional observations left to use by Emoto. The water crystals form, not only clearly revealing a 'good' or 'bad' water, but also expressing as form specific vibratory qualities, which he called Hado - "the intrinsic vibrational pattern at the atomic level in all matter" (Emoto, s.d., home).

Even if it seems that the experiences of Emoto are not enough for some scientific investigative criteria regarding the quality of water at this time,⁵ the subjacent creative process of the formation and registering of water crystals may represent significant data to the 'art of creation.' Maybe we can see our 'seed projects' as potential mirrors of creation, even as sacred platonic solids that expect to express their archetypal form. So, in this first step towards 'sacred creativity,' we need to check or select the purity of the seed, and this may lead us to question, what is the purpose of the project?

3 THE SEEDS SOUL REACHES THE LIGHT

Let us now imagine that we have a really pure seed already inside the soil - that is, we already have the design requirements analyzed, and we agree with the subjacent ethic. Thus, for the next creative step, we need to nourish the seed in order for it to break the shell and rise while also deepening its roots. Maybe we can find roots from previous experiences that we can look towards as inspiration. Or maybe we can find roots within the mystery of our own inner universe. This is well known as part of a creative experience and will allow our seed to be well-rooted. This is necessary, but not enough - we will need it to grow towards the light. Let's take, for example, the inner movement of a small chapel space, or even one of the highest Gothic cathedrals, rising upon a landscape or urban grid.

In the second case study, let us bring the experiences of Charles Leadbeater [1854-1934], as it was described by him in the 1920s, in *The Science of the Sacraments*. Leadbeater was ordained as an Anglican priest and later became one of the leaders of theosophical thought. He was also known as a clairvoyant, which means he could clearly see things that others may only feel or perceive. Among other discoveries

that he made through his visions, he described what he saw happening during a liturgical celebration: "The edifice swells up from below like a bubble which is being blown." In Leadbeater's visions, that was the step-by-step building of an ethereal cathedral by the angels. Following more precisely, he added:

the opening Canticle provides its pavement and the Introit the material for its walls and roof, while the Kyrie supplies the subsidiary bowls or cupolas, and the Gloria the great central dome (Leadbeater, 2007, p. 25).

He describes how initially, a bubble is formed during the asperges⁶ purification; it continues to widen and become more precise and complex in form as the ceremony unfolds. Each part of the celebration and each specific song models specific correspondent forms, following that which we can only sense as a rise of elevation until the apex of the 'Gloria.' There is a relation between vibration and form, as demonstrated with Chladni plates and the building within three-dimensional forms. In Leadbeater's descriptions, it was said that the angels produced such tangible spaces that he interpreted the shape of the Gothic or Byzantine cathedrals as reproductions on the physical level of the constructions that they built on the subtle levels, and he even tried to design what might be the ideal plan for that specific ceremony (Leadbeater, 2007).

On a metaphorical level, this is the step when higher aspiration enhances. To enhance can also mean sustaining and concentrating the focus within the 'creative theme' we are working upon - emotions and thoughts focused on the same purpose. And maybe even losing track of time in this process - just like an artist or even a scientist may find themselves immersed in that which seems to be a lapse of the eternal.

4 OPENING UP TO THE UNIVERSE

Often, we may dedicate a lot of effort towards coming up with an idea or principle that can guide the design of a project, and yet that effort does not seem to give the expected results. Paradoxically, at another moment, when we were not even thinking about the topic, an idea might come to us as a 'click' bringing the power of synthesis that we were looking for. Archetypally, it might be like a little sprout finally reaching the light and opening its first leaves to the immensity of a new universe.

Somehow, we can feel this creative moment expressed in the life of the Eastern monasteries, as

5. About positive scientific confirmation of Emoto experiences, look for G. Pollack about *The fourth phase of Water*.

6. "a ceremony of sprinkling altar and people with holy water" (Marian-Webster, 2021, asperges)

they were described by the writer Jun'ichirō Tanizaki [1886-1965] in his *In Praise of Shadows*. This will then be our third case study. In this book, originally published in the 1930s, Tanizaki made the comparison between the principle underlying the Western Gothic cathedrals - valuing the verticality towards the light - and the Eastern monasteries and temples - emphasizing the horizontality and extension of the roofs over the gardens and the several degrees of shadows that they allow (Tanizaki, 1977). As an exercise, we can imagine the silent and contemplative liturgy that eastern spirituality is an expert on and place ourselves inside the peace of this horizontal space. If in the previous step, we were this sprout, trying to emerge from the soil, we may then feel that we are this small plant that just sprang up and horizontally opened its leaves for the first time to the immensity of the universe. As part of the process, we may feel this moment as an 'eternal pause.' And, if we are quiet and silent, maybe this moment could become the catalyst for a creative idea. If we were doing nothing, what happens then, we might ask? Tanizaki described that inside this vast shadow, within spaces of multiple nuances, in the darkest area, Easterners would there place the most sacred object, such as Lacquerware, for example, that is decorated in gold or sparkling patterns:

Their extravagant use of gold, too, I should imagine, came of understanding how it gleams forth from out of the darkness and reflects the lamplight. (Tanizaki, 1977, p. 14).

Can we metaphorically see a sacred idea becoming 'illuminated' from darkness?

Graham Wallas [1858 - 1932], called 'the father of the creative process theories,' precisely identified this inspirational moment as 'illumination,'⁷ a word that we recognize from Eastern spiritual instruction, and, especially, from the Buddha, as 'enlightenment.'⁸ In some way, this is also something subjacent to the Tao principle of WU-WEI⁹ - the *action of non-action* (Reninger, 2020). This is the action of the universe flowing through us, as explained by the ancient Eastern teachings. If only for a moment we could stop our egoic actions, we would leave room for the action of the universe, in this case to a sudden and unexpected inspiration. Our little plant is no longer crossing the soil

searching for the light but quietly welcoming and thanking the rays of light into its cells.

5 THICKENING OF THE STEM

Even if we are still only a small seed that has just sprouted, we may say that at this moment, we are already experiencing the creative process with the entire impulse. What, then, should we watch for at this fourth step? We will need to protect this that 'was given' to us: we need to make this newly born 'idea' grow without losing the essence. Maybe we recognize those moments of dispersion within our own experiences when we start losing the main point of the project design without realizing it. So, in this fourth stage, we turn into the guardians of the purpose. And this will need extra protection or a 'thickening of the walls' to keep on growing, like the necessary thickening of a stem that will continue to rise.

A new case study that we will be approaching is that of Hans van der Laan [1904-1991] - a Dutch architect and Benedictine monk who was essentially known for his 'plastic number,' but here we will approach this from his studies about sacred walls. For Van der Laan, the 'liturgical forms' needed to be somehow closed by walls - closed away from cultural forms so that they could carry out his liturgical and sacred value. For this purpose, he saw the thickness of a wall not just as a constructive need - it was also something necessary to keep a formal sensation, even, for example, if the building were to be concrete. This was such an important principle for him that almost all the building measurements that he used as an architect were conditioned to the utmost thickness that was possible to attain for the wall. In *Architectonic Space* (1983), he justified, as an example, that the ancient unit of length called 'cubit' was not the same for a house, palace, or temple - the more sacred the building was, the higher was the cubit (for example 45cm for houses, 60cm for palaces, and 75cm for temples) (Van der Laan, 2007). Thickness protects that which is sacred, just like old defensive city walls, pits, and labyrinths, which were magically arranged to prevent the invasion of demons, disease, and death, as stated in the 1950s by Mircea Eliade (1992). But for Van der Laan, the thickness was also, in some way, a representation of the principles of nature. He saw sacredness as a *deputation* of culture and used an interplay of words to explain the role of the human being in this process: *limited created intelligence* (ourselves, as the artist), *in relation to the unlimited creative intelligence* (the Uncreated Creator).

"We can only transform natural forms, so our creativity is necessarily relative.", he said. And he added to the explanation:

7. Stages of the 'Creative Process' according to Wallas: 1. Preparation; 2. Incubation; 3. Illumination; 4. Verification. (Wallas, 1926)

8. In some languages 'illumination' and 'enlightenment' are the same word, such as in Portuguese there only exists the verb 'iluminar'.

9. As original use of the term 'WU-WEI' see, for example, ancient books like 'Tao Te Ching' or 'Zhuangzi.'

Our making is not creative in the sense of bringing things into being out of nothing: it is no more than a reflection or shadow of the creation of nature. (Van der Laan, 2005, p. 7, p. 18)

6 FINDING BALANCE WITH PRUNING

At the fifth step, we can start by bringing in this idea of pruning. This time, not exactly to strengthen the plant, but to co-create with its beauty and harmony. As we can learn in 'beaux-arts,' we can also draw by erasing. Traditional sculptors use specific tools to subtract each material, and, in architecture, we usually subtract the china ink from the tracing paper with a razor blade. So, then, which branch will we need to cut to re-balance the archetypal harmony and beauty of the plant? Which side of the plant will we be balancing with our artistic eye and presence? Which stone file or tuning fork can we use at that moment?

As an archetypal case study, for this step, we always remember Le Corbusier's 'The Modulor' - a system of measure created by this architect in the 1940s with the aspiration to be like a musical scale to the composition of form. Inspired by the Fibonacci spiral, in this investigation, Le Corbusier (1948) tried to synthesize his understanding of the relationship between organic human measurements and rational, mathematical proportions. At that time, he was concerned that the need for industrial standardization could cause construction to lose its harmony and human proportion, something that for him was so naturally present in ancient and sacred buildings. It was also as if Le Corbusier sought to find a healing tool for the disharmony in buildings and built environments, a tool that also provided an aspect of reconciliation with a system of measures that he saw as an archetype. He not only consciously tested 'the modulor' system in his own buildings as an architect, but he also prepared a didactic scale for visual measurements such as a tape 'modulor' measure, graphics, and instruction books. This way, he aspired that everyone could follow the same universal harmonic proportion. But could the adherence to his invention make the buildings more 'musical,' we may ask? Could everyone that started a project design with this system have guaranteed harmony? In the second volume publication, Le Corbusier (1955) clarified that the purpose was not to start a project restricted by 'the Modulor' greed, but that it should work like a musical tuner. It was like saying that first, we need to use our own intuition and fine-tune it. This seems always to be a delicate theme for architects, artists, and humanists - is there or is there not a universal tuner for harmony? And what if we reduce the scope to 'sacred harmony'?

It seems that even that which is sacred can express the relativity of aesthetic judgment - about this, Rudolf Otto wrote about 'the sacred' at the beginning of the XX century, saying that they represent different stages of development and ripening of taste (Otto, 2007). In some spiritual contexts inspired by the Theosophical teachings of Helena P. Blavatsky, the artist's task is explained as receptivity to the 4th ray, the Ray of Harmony - a notion that comes from ancient wisdom. It is also called the ray of 'Harmony through Conflict' (Bailey, n.d. 1; Trigueirinho, 1994) - something that, as architects, we may experience when faced with several conditions that a specific project usually brings. So, at this fifth step, if we aspire to be experiencing sacred creativity, tuned with harmony, maybe we should now review how we are tuning our inner reality.

7 THE MYSTERY OF FLOWERING

At this step, we will start telling a story - a real experience of a young anonymous architect living in a spiritual community¹⁰ who, during the building process, witnessed something almost magical happened. The workers did not calculate the correct height of the prayer building from the drawings, and it was not until they were halfway finished with the roof when she noticed this. She could have decided to make them redo what was done, but she did not. Instead, she decided to save their efforts and excuse their lack of intention towards avoiding a mistake. In this process, something unexpected was revealed - the supposed error of the workers turned into a light flower form upon 'a sacred teraphim',¹¹ represented by the rays of sunlight crossing a zenith lantern over a sculpture of the Virgin Mary. Something unintentionally had been projected, and that would not have happened if she had decided to be "right."

Our next case study will be from the architect's very own instructor, the spiritual philosopher José Trigueirinho Netto [1931-2018]. In one of his writings, he deepened about 'how work of a spiritual nature is manifested in material life,' as if it could be a piece of sacred art, a spiritual book, or even the prayer house of architectural design, like the one described. About this, he wrote that anyone who manifests a work of a strictly spiritual nature knows that they are not the author.¹² For him, this was 'true work,' a work inspired by an *internal source* (Trigueirinho, 2018). This point

10. Reported live in the 'Light-Community Fraternity' (Salto, Uruguay)

11. By 'Teraphim' we mean here an object magnetized in a special way (Trigueirinho, 1994).

12. Free translation: "Todo aquele que manifesta uma obra de cunho estritamente espiritual sabe que não é dela o autor." (Trigueirinho, 2018).

of view resembles some of the perceptions of other writers regarding the role of a place in the manifestation of a project. Mircea Eliade (1992), for example, wrote in the 1950s that man does not choose sacred places; he merely discovers them; Norberg-Schulz (1980) extended the same concept to the ‘Genius Loci’- the manifestation of the *spirit of a place*; and even ‘Oporto School’ presented through Álvaro Siza Vieira that the idea might be found in the place. This would mean that the idea, especially if it is a ‘sacred idea,’ is not ‘ours.’ We are only the instruments that find the idea within. The ‘author’ must become a ‘mere instrument’ - like the ‘pencil in God’s hands’ that many Saints aspire to be. Trigueirinho added to this subject regarding the significance of *humility and unconditional surrender to internal sources for conditions to be in harmony with the essence that must emerge through a spiritual manifestation in matter* (Trigueirinho, 2018).

Therefore, even if we seem to be the most qualified instrument for the purpose, we must always be open to bow down and flow with the unexpected, even if it seemingly comes from man’s mistakes of man. For example, scholars of natural science – taking, the polymath writer Goethe in *Metamorphosis of Plants* (n.d.) – explain that flowering always happens after the withdrawal of a plant. Maybe we can see the corresponding bowing down and withdrawal of our emotional and mental states as a space that can be opened for the soul’s blossoming. This is the spiritual understanding of action on a soul level.

8 THE FRUIT OF LOVE AND SACRIFICE

We will be taking the risk of finalizing, in our final step, a topic that is usually misunderstood. Usually, we understand ‘sacrifice’ as something heavy, even cruel, but this is not the case here. We are using the word ‘sacrifice’ from its original meaning - from Latin ‘*sacra*’ + ‘*facere*’ / ‘sacred’ + ‘to make, to do’ (Harper, 2021) - the act of making the sacred, ‘sacred office,’ and also - ‘consecration.’ It also could mean acts of ‘offering,’ of ‘sharing,’ and even of ‘renunciation’ to accomplish a higher state. Something that permeates the cycles of nature, for example, the ‘birth of the fruits’ from the ‘death of the flower.’ And how might sacrifice be a step towards sacred creativity, we may ask?

For the final case study, the first chapter of *The Seven Lamps of Architecture* written in the middle of the 19th century by John Ruskin [1819-1900], the ‘Lamp of Sacrifice,’ has been selected. By ‘lamps’ the author means the qualities that illuminate architecture, or the creative act of making architecture; and by ‘illumination’ here we mean the action of causing it to become ‘sacred.’ At that time, Ruskin (n.d.) referred, for example, to the

need of offering good materials or well-made ornaments. He didn’t do this as devaluation of austerity or simplicity but rather to enhance the value of things made with care. In this way, for example, he referred to the sacrificial value of an artisan’s labor and the time and effort sacrificed in their handiwork. He also used the traditional example of religious buildings, sometimes in contraposition with the lack of ‘value’ that he saw in standardization: the lack of soul within things done by machines instead of by human hearts. We have examples of this in paintings of Zen monks upon walls of places such as huts that no one will see, but only by God, or in ancient and recent communities where they are building with their own hands, laying each brick, one by one. We may also see it within the process of realizing a project design idea - ‘10% inspiration, 90% perspiration,’ was the known expression used by Fernando Távora in his classes to illustrate this. Of course, nowadays, we may say that man can also use ‘sacrifice’ and ‘heart intention’ while operating the machines. If we want to differentiate, we may put it side by side and ask ourselves: has this been made by a heart? Do we aim to create with technical precision and precision of the heart? What do we really need to sacrifice nowadays to accomplish ‘sacred creativity’?

One day, someone who was committing herself to a spiritual path had a dream in which she was helping a renowned architect who was having a heart attack. The architect, whom she had previously worked with years before, was not doing so well accepting bureaucratic difficulties on top of a whole series of obstacles with licensing a project design. In the dream, she was helping him calm down by saying: “Be calm, in the end, we are in a ‘School of Love’ and these setbacks only serve us to learn to open our hearts more.”¹³ This means, in Christic instruction, to love, even during difficulties, love even during sacrifice.

9 ENDLESS ENDING

The initial statement of Brancusi - “*It’s not hard to make things. What’s difficult is putting ourselves in the state to make them*” - is one of the most known quotes among first-year art and architectural students. The quote is like a mysterious occult answer for the eternal theme of ‘human creation,’ and it could leave us throughout an entire lifetime asking what does he mean by “... *putting ourselves in the state to make*”?

This was the experience of someone who was initially interested in the mystery of the creative process and who then later embraced a consecrated

13. About the role of dreams and visions in several contexts (including scientific and creative) see *Man and his Symbols* (Jung, Franz; 1964).

spiritual life. She had already forgotten this inner questioning, and, one day, to her surprise, she woke up with a flash vision which was understood as a scanner of Brancusi having the inspiration of his endless column.¹⁴ He was seated before a big white sheet of paper placed on a drawing easel, with a pencil in his hand, about to draw. It was a transparent vision, and, due to this, within him, she saw what would become the answer to her endless question - the endless column was there as Brancusi's very own vertical axis, crossing through his body, from the earth to the sky, as if he were that column himself, or as if the column was a sacred creative moment that he was living. From the bottom-up and from top to bottom, it was as if a flow between our levels, as human beings, was mirrored, in each column bead - the physical-etheric, the emotional, the mind, the soul, the spiritual and the divine planes, to also use teachings inspired by Theosophy (Leadbeater, 2007; Trigueirinho, 1994).¹⁵ A deepening of the seven levels of a being that were perceived in the rhythmic configuration of the sculpture, and that we usually know more synthetically as 'body, soul and spirit.' In one of his self-portraits, Brancusi appears, precisely aligned with one of his endless columns. Before himself, he added, on a transparent overlay, an oak tree trunk sprouting in such a way that we could perceive an alignment between himself, the tree, and the endless column. Somehow, each bead of the column seemed to create a rhythmic transcendence of a level, a rhythm that, at some level, was an inspiration for the seven steps of this writing. Might this dream also help us to understand something more about Brancusi's work?

Based on the sculptor's descriptions, Eliade referred to this sculpture as a representation of the *axis-mundi* or *cosmic tree* and brought us an unexpected interpretation of the essence of his work - the feat of paradoxically having made a dense material like a stone be weightless. He also mentioned that he had not found a satisfactory explanation: after having conceived the 'column without beginning or end,' Brancusi repeated it incessantly until his death for twenty years, without creating any other new sculpture (Eliade, 2005). Linking this with the main title of this writing - maybe the column may have represented the *synthesis of a sacred 'endless ending' of life*, such as the eternal rebirth of the project of a small seed. This will also be an unconfirmed hypothesis. But perhaps, not by chance, his studio was simultaneously recognized as a 'sanctuary' and a 'greenhouse.'

14. Ibidem

15. The '7 Planes' or '7 bodies' are a concept of the ancient wisdom, adopted in the late 19th century by H. Blavatsky, and systematized later by A. Bailey, C. Leadbeater, R. Steiner, among others.



Figure 3. Untitled. Detail. Friar Renatto (n.d.).

10 PARALLEL ENDING

"Plants are contained within their seeds, but human eyes do not see the plants within the seeds," said Rudolf Steiner (1911). Through a polymath and anthroposophical work, he leads us to contemplate nature beyond what is seen with the physical eye and find 'the gates of knowledge' that lies within it. *How are plants contained within the seed?* Scientifically, he explained that inside the stem or trunk of a plant, there is a part that makes the life connection with the earth - the *life-sap* - and another that connects the plant with the stars, with the whole universe - the *cambium*. So, the archetypal pattern of a plant is somehow imprinted in the *cambium* by the stars, a pattern that is then transferred to the seeds and the newborn plants. We might say that the creative process of Brancusi is similar to this. It is like saying that the stars are the sculptor of the plant and that they receive from the universe the archetype to be manifested: "In the *cambium*, one has a sketch, a sculptural activity. The stars model in it from the whole universe the complete plant form."¹⁶ (Steiner, 1924).

Returning to the theme launched by Phi 2021, what could 'creating through mind and emotions' represent within this context? Let us remember that the same 'seven planes' (which we approached from the impulse of the 'Endless Column') are the basis of the *setenniums* - the organizational base model for the Waldorf Schools of Steiner. Every seven years, the child is given the opportunity for gradual development of their different bodies. (Lievegoed, 1997). Alice Bailey (n.d. 3)

16. This reflection of Steiner about plants was lightened by Friar Ameino (J. M. Campos) in a still unpublished book. For a similar contribution of this author see 'Trigueirinho Oficial,' 2019.

completed this, making reference that, at University, we should already be learning to exercise our intuition at full - the soul level. Although our typical schools have not yet usually incorporated the science of these centenary teachings, due to the specific characteristics of 'higher education' in architecture or arts, maybe some of us were blessed with this same experience - without even noticing, we learned to silence and discipline our physical, emotional and mental bodies, then hear and obey intuition. We may recognize the impulse of true intuition if we are not lost in our emotions and if our mind is no longer 'deducing,' no longer reasoning with itself. We may feel that inspiration is coming from unknown space, a space of synthesis. If we keep following this path, as it seems to be in the inspiration of Brancusi, this could mean for one not to become an 'author,' but a conscious channel of a greater reality. So, to finalize, it may be asked: might our creative process become like this cosmic project that lies within a small humble seed?

The theme of this call may be a good start to reflect upon these sacred seeds that could help our shells take form. We need only to remember that we are more than emotions and thoughts. If we want to begin creating like pure seeds that receive and guard their archetypal and sacred impulses, we just need to silence our emotions and thoughts and let them learn to follow and obey the infinite. If this 'breath of the spirit' is obeyed, this might be referred to as the start of 'a spiritual way of creating,' or rescuing 'sacred creativity.'

Let the Breath of the Spirit lead your boat. It knows where to go. You are not the body, you are not the mind, nor what you feel. You do not belong to this Earth, your light is beyond. To reach distant worlds is a gift of the consciousness, that never separates from infinity. (Coral de Figueira, n.d.) (offic. transl.)



Figure 4. Untitled. Friar Renatto (n.d.).

11 FINAL NOTE

At some level, the article was inspired by the life and teachings of the Light-Community Figueira, founded by José Trigueirinho. Concerning the work with the seeds that take place there, Friar Renatto has said:

It is so important that we can gradually tune in to a true relationship with the seed: love as the principle for everything, and scientific knowledge as a way to understand how a seed works.” (Misericórdia Maria TV, 2021).

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Fredrik Gabriel Hedberg: The reluctant author of an autobiographical conversion narrative

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ABSTRACT: On June 12, 1844, Fredrik Gabriel Hedberg – one of the most prominent religious revival leaders in nineteenth-century Finland – published the first version of many of his spiritual development. The 26 pages manuscript has ever since been regarded and read as a so-called conversion narrative. It is ironic, considering that the revival movement named after him later came to dissociate itself from such testimonies. Hedberg’s account can, namely, be read as a dissuasion against writing conversion narratives. In it, he explicitly advises against seeking any particular conversion experiences. Instead, he advocates a faith founded on God’s Word, not one dependent on whatever passing and uncertain “inner flashes of feelings” a conversion experience may or may not bring about. In this article, I argue that this contradiction – namely that his account resembles and is interpreted as a conversion narrative despite his warning against such testimonies – may be explained by his use of metaphors and tropes typical of conversion narratives that he cannot avoid if he is to reach out to his audience. The rhetorical power of such tropes and metaphors lies in the cognitive and affective resonance they conjure up in the audience – they are universal, conventional, and immediately recognizable for most people. Consequently, the result is that Hedberg’s account inevitably resembles a conversion narrative.

Keywords: Finnish church history, Revival movement, Conversion narrative, Historical narrative, Pregeneric plot structure

1 FREDRIK GABRIEL HEDBERG – A FINNISH REVIVAL LEADER

A characteristic feature of the Finnish and Nordic revivalist movements of the nineteenth century is their strong leaders. It is the case of the founder and leader of the so-called evangelical movement, Fredrik Gabriel Hedberg (1811–1893). As Hedberg’s influence – through his various offices within the Evangelical Lutheran Church of Finland and through the many books he published during his lifetime – extended to a considerable part of the country but also abroad, he is often considered one of Finland’s most important revival leaders in the nineteenth century (Wennerström, 1893; Wennerström, 1896; Sipilä, 1896; Takala, 1947; Schmidt, 1948, Ruuth, 1912, p. 193–209; Newman, 1931; Tiililä, 1974; Nyman, 1949; Santakari, 1961; Suokunnas, 1911).

Early in his priestly career, Hedberg – like many other young and unpromoted priests at the time – joined what was called the Pietistic movement. Pietism was a movement within the Lutheran state church that, among other things, emphasized individual piety. It was considered a threat to and by the

state church. (Schmidt, 1948, p. 16–72; Suokunnas, 2011, p. 15–32). As a consequence of his Pietistic sympathies, Hedberg was sent off to serve as a preacher at the prison in Oulu – a standard procedure to limit his possibilities of spreading the Pietistic teachings. (Schmidt, 1948, p. 72–85; Suokunnas, 2011, p. 33–38). Hedberg himself speaks of Oulu as his Wartburg, with an unmistakable reference to Martin Luther (Schmidt, 1948, p. 72–85).

Hedberg’s reference to Martin Luther was not merely due to his sense of identification with Luther’s situation but also due to his acquaintance with the works of him and other German theologians. During his stay in Oulu, especially Luther’s Commentary on Galatians opened his eyes to the legalistic Christianity that the Pietistic movement represented in his mind. (Hedberg, 1985, p. 153; Akiander, 1863, p. 280; Santakari, 1961, p. 79; Takala, 1929, p. 434).

After having ‘served his time’ in Oulu, Hedberg was appointed as a preacher farther south in Raippaluoto on May 1, 1842. The revelations that had started to take shape in Oulu developed, and he began to express them more openly. In Raippaluoto,

he started writing a book called *The Doctrine of Faith unto Salvation*, which was essentially a reaction and critique against the Pietist movement, of which he had formerly been a follower. Ever since the book has been seen as the key document for the evangelical movement (Dahlbacka, 2017, p. 99–115; Dahlbacka, 2021, p. 73–86).

During his time in Raippaluoto, and in the wake of his spiritual battle, Hedberg experienced an intense spiritual experience on September 24, 1842. Later, he would compare the event with the sun's rising (Dahlbacka, 2017, p. 101–102). That event has often been perceived as the impetus for the evangelical movement (Schmidt, 1948, p. 92–93; Santakari, 1961, p. 79; Kakkuri, 2014, p. 229).

Although the evangelical movement was not formally founded until 1873, the events following Hedberg's time in Raippaluoto have often been regarded as crucial for the inception of the Evangelical movement. Especially Hedberg's own inauguration as a parish priest in Pöytyä, on July 30, 1843, is often brought to the fore and referred to as the birthday of the Evangelical movement in Finland. It is evident from this rendering that the events in the 1840s meant a lot to Hedberg, as would his account for them subsequently mean to the evangelical movement as a whole (Hedberg, 1985, p. 154–155; Schmidt, 1948, p. 101–108).

2 THE “CONVERSION NARRATIVE” OF FREDRIK GABRIEL HEDBERG

In forming the identity and self-image of the revivalist movements, their leaders' lives and spiritual development have often played a significant role (Jarlert, 2003, p. 107). The statement is true, especially when it comes to the leaders' conversion narratives and spiritual testimonies. According to Finnish church historian Teemu Kakkuri, such narratives have often, in time, turned into so-called etiological myths, which recur, above all, when describing the origins of the movements. They are not myths in the sense that one would have to question their authenticity. They did take place – and they were often told, retold, or verified by the leaders themselves – but their meaning and significance have, over time, been extended far beyond their initial intention (Kakkuri, 2014, p. 228–229).

When speaking of the evangelical movement, such a ‘condensation’ and ‘canonization’ can be said to have taken place with the events in 1842 and 1843, respectively. Consequently, the coming into being of the evangelical movement in Finland is often condensed merely to those few years. However, when Hedberg, on June 12, 1844, wrote the first account of his spiritual development – a handwritten manuscript à 26 pages, which was to be the first version of at least a dozen altogether

(Erikson, 2002, p. 23) – he began his narrative nearly two decades earlier, namely in 1826. In other words, the ‘rising of the sun moment in 1842 was preceded by a spiritual battle of more than fifteen years. In fact, in this manuscript, Hedberg does not even mention the event in Raippaluoto. He writes of no typical, sudden, and dramatic conversion experience that turns his world upside down. Instead, Hedberg's conversion is more of a process – filled with progress and backlashes – which eventually, after a long struggle, turns into clarity.

My hesitation for straight off categorizing Hedberg's account as a conversion narrative has multiple reasons. First and foremost, Hedberg himself does not speak of conversion when trying to put words on his spiritual battle. At least not in the title, even if he uses the expression “way/walk of conversion” later in the text (Hedberg, 1847, p. 13). However, the word he uses instead to describe his experience is interesting.

The first version of Hedberg's account was called *Uppriktig bekännelse*. It would translate to *Sincere confession*. An almost identical account was included in a book published three years later, in 1847. That book is often referred to as *The Confuting of Works Righteousness and the Vindication of the Gospel*, but it actually has an even longer name: *The confession of Fredrik Gabriel Hedberg and the defense of the Gospel against the attack by the Finnish Pietism*.¹ In other words, the word “confession” is highlighted in the very title (Suokunnas, 2011, p. 81–86).

The use of the word “confession” might be unintentional, but it is hardly a coincidence. Hedberg had read the Church Fathers, and he had read St Augustine. As it appears already in the more extended title, the explicit purpose of the book was to defend the Gospel against the Finnish Pietism, of which he had himself been a follower. More precisely, he wanted to demonstrate how the “pure doctrine of the gospel” had constantly been fought against and falsified by “laws of the self-righteous.” He did this, for instance, by referring to St Augustine's words against the Pelagians in *De Praedestinatione Sanctorum*. With this analogy, he accused the Pietists of being Pelagians; meanwhile, he endorsed the Augustinian doctrine of justification by faith (Hedberg, 1848). In light of this, it is hardly far-fetched to assume that the word “confession” is also an allusion to St Augustine's famous work *Confessiones* (Augustinus, 1990) – be it intentional or unintentional.

Second, what adds to my hesitation of explicitly calling Hedberg's account a conversion narrative is

1. My translation. The original title, in Swedish, is: “Werklärans Wederläggning och Evangelii Försvär. Fredrik Gabriel Hedbergs Bekännelse och Evangelii Försvär emot den finska Pietismens angrepp”.

that there never existed a tradition of writing conversion narratives within the evangelical movement. Generally speaking, conversions or similar kinds of “born-again-experiences” have never been regarded as central or desirable. Moreover, within the Lutheran tradition, more in general, it was never considered essential to recall vividly the very exact moment of one’s conversion. The conversion was understood as a lifelong process, not a dramatic moment (Strom, 2018, p. 10).

Third and foremost, Hedberg explicitly dissociates himself from any form of systematic (and, in his view, legalistic) *ordo salutis* – order or salvation. He writes that he has tried to read and closely observe the writings of Pietist authors who:

step by step instruct how conversion should proceed, what signs a person should be able to observe, and how a man can know whether he finds favor with God or not (Hedberg, 1847, p. 8).²

However, he concludes that reading such books has only given him more despair, more hopelessness, and more doubt and “plunged him further down into his misery” (Hedberg, 1847, p. 9). Having read Martin Luther’s Church Postil, however, he began to get an inkling of a way to salvation that was different from anything other man-written that he had ever read before:

Finally, I found an old, altogether forgotten book in the church archives, which was doctor Luther’s lovely Church Postil, the one I had never seen before. [- -] it differed a great deal from all the writings of man I had seen and read thus far. Thus, in Luther, I did not find the so-called systematic way to salvation that all the other spiritual books displayed. [- -] Instead, I found there an exposition of the Gospel so clear and distinct that I have never before seen or heard anything like it (Hedberg, 1847, p. 14).³

Therefore, the purpose of the confession – by which Hedberg refers to his “inner sufferings and fruitless efforts” – is, quite contrary, to “serve as

a warning and exhortation” against the “poison of the self-righteous” (Hedberg, 1847, p. 15–16):

And I dare to hope that right-minded souls will not misjudge my open-hearted confession; like no wise man would find fault with someone who, misled by false instructions, has long wandered about in the woods and the deserts and who, after finally having found the right path again, also informs other wanderers about his futile hardships and sufferings, as a warning for them, not to let themselves be misled by similar kinds of false instructions, but to remain faithfully by the only right path (Hedberg, 1847, p. 16).⁴

Given this, it seems almost as if Hedberg’s account is a kind of anti-conversion narrative.

Seeing that Hedberg calls his time in Oulu as “his Wartburg” – thus explicitly referring to Luther – and considering Hedberg’s reliance upon Luther in general – a reliance acknowledged by latter-day researchers – it does not seem farfetched to assume that Hedberg’s account of his conversion primarily aims at describing his theological breakthrough similarly as Luther did, rather than serving as a model for others to imitate (Hedberg, 1847, p. 6–17; Arkkila, 2011, p. 73–86). This way of looking at the account is how Jonathan Strom, in his book *German Pietism and the problem of conversion*, describes the “Turnerlebnis” of Martin Luther. He writes:

At the end of his life, Martin Luther penned an autobiographical Rückblick, in which he describes his theological breakthrough. Some treat this account of his so-called Turnerlebnis as a kind of conversion narrative, but in fact, there was no tradition of spiritual autobiography in Protestant Germany for the first century after the Reformation. Luther’s Rückblick was a description of his discovery of fundamental theological insights rather than an account of a conversion experience. The path to evangelical truth, consequently, did not require imitation or emulation of Luther’s experience; rather the emphasis was on the apprehension of theological truths. The Lutheran understanding of conversion after the Reformation did not

2. My translation from Swedish. Original quotation: “steg för steg beskrifva: huru Omvändelse bör tillgå: hwad människan derunder har att iakttaga: af hwilka kännetecken man kunde weta, om man står i Nåd hos Gud, eller icke”

3. My translation from Swedish. Original quotation: “Änterligen fann jag i kyrkoarkivet en gammal, bortglömd bok, som var d:r Luthers herrliga Evangelii Postilla, den jag ännu aldrig förut hade sett. [- -] den skilde sig betydligt från alla de människoskrifter, dem jag härtils sett och läst. Jag fann således alldeles icke hos Luther denna systematiska s.k. salighetsordning, som i alla de andra andliga böckerna [- -] men deremot fann jag der en så tydlig och klar utläggning af Christi evangelium, hvars like jag aldrig någonsin sett eller hört.”

4. My translation from Swedish. Original quotation: “Och jag vågar hoppas, att min i sådant afseende gjorda öppenhjertiga bekännelse ingalunda skall misskännas eller förtydas af rättsinniga själar; så som icke heller någon förståndig människa ville klandra den man, som, missledd af falska anvisningar, länge irrat i skog och ödemark, samt hvilken, efter att äntligen hafva återfunnit rätta vägen, meddelar äfven andre vandringsmän sina fruktlösa mödor och lidanden, till en varning för dem, att icke låta sig vilseledas af dylika falska anvisningar, utan troget förblifva vid den enda rätta vägen.”

encourage any particular kind of conversion experience (Strom, 2018, p. 9–10).

Interpreting Hedberg's account as a description of theological insights rather than a schematic conversion narrative could also explain why Hedberg omits the seemingly important passage of Raippaluoto from the text. Doing so, he does not encourage any particular conversion experience – just as Luther had not done. Hedberg advocates a faith based on the propitiatory sacrifice of Christ and “founded on God's Word,” not one dependent on whatever passing and uncertain “inner flashes of feelings” a conversion experience may or may not bring about (Hedberg, 1853, p. 187; Hedberg, 1998, p. 116). He appeals to his audience's cognitive rather than affective resonance – to their mind rather than their emotions.

3 METAPHORS AND GENERIC TROPES AS INEVITABLE NARRATIVE STRATEGIES

This article is not the place for a thorough analysis of the contents of Hedberg's account of his spiritual battle – be it a conversion narrative or not, according to the rules. Besides, the narrative has already, to some extent, been analyzed by church historian Lauri Koskeniemi (1985) and by church historian Anders Jarlert (2003).

What I wish to underline is not so much the content of the narrative – the actual events that Hedberg refers to – nor what role the narrative has played within the movement – its reception history or how it has been portrayed historiographically. Instead, I wish to draw attention to its structure or narrative form – *how* Hedberg depicts the events. In my view, herein lies the answer to the question: Why does the account stand out as a conversion narrative although Hedberg, as it appears, deprecates such testimonies?

As is evident from my rendering thus far, Hedberg's writing displays elements that could be seen as influences from St Augustine and Martin Luther. There are undoubtedly other possible examples of intertextuality, linking up Hedberg's text with traditions spanning time and space.

For instance, Hedberg's testimony about how he used to fall on his knees in the loneliness of the forest and pray for God's mercy could be a reference to August Herman Francke's famous portrayal of his conversion in 1687. Francke's rendering has often been regarded as *the* exemplar of German Pietism and as a 'rule' for others to imitate and follow. Jonathan Strom, in his book *German Pietism and the Problem of Conversion*, poignantly describes the importance and influence of Francke's narrative:

No other conversion narrative in Pietism has received as much attention among historians as

August Hermann Francke's conversion narrative. His account, considered paradigmatic and a model for Pietist conversion in the historiography, is the most widely analyzed and reprinted narrative of conversion in Pietism. Indeed, its characteristic features of repentance, tears, falling to one's knees, and then a subsequent dramatic turn from unbelief to an assurance of faith, in which doubt vanishes "as quickly as one turns one's hand," have become a cliché in the depiction of conversion in Pietism (Strom, 2018, p. 15–28).

Whether or not Franke served as a template for Hedberg is not possible to determine, even though Hedberg was familiar with the writings of the most prominent German Pietist authors, including those of Francke (Hedberg, 1847, p. 14–15; Takala, 1929, p. 224–232). However, what is true for a fact, is that the imagery of falling on one's knees – employed by both Hedberg and Francke – is very typical of conversion narratives.

The same passage in Hedberg's account illustrates another example of his usage of familiar tropes and figures of speech. In his narrative, Hedberg writes about “wandering about in the wilderness of disbelief” (Hedberg, 1847, p. 12). Considering the Finnish environment, Hedberg retreats not to the desert but to the typical Finnish remote places such as the woods or the winter cold. He writes:

Often I spent hours reading and praying in the coldness of the winter (a fool talking); in the solitariness of the woods, I lay on my knees on the snowdrift [- -]. (Hedberg 1847, 10–11).⁵

The metaphors of withdrawing into the wilderness or the desert to seek solitude – or to encounter temptations – are pervasive and used by St Augustine and John Bunyan (Littberger, 2004, p. 51). John Freccero (1986, p. 56) even calls the biblical Exodus *the* image of conversion – its visual expression.

One could point to several other pervasive images or tropes as well. ‘Conversion through the reading of Scripture’ has a long-standing tradition in Christianity, the most famous example being St Augustine's conversion (Littberger, 2004, p. 11). In Hedberg's case, as we have seen, his revelation comes after reading Martin Luther. Furthermore, Hedberg's description of how a “veil fell off my eyes” is a classic metaphor used when describing how someone blind for God's work gets renewed vision (Littberger, 2004, p. 12; Freccero, 1986, p. 123) – the most famous example being the conversion of Paul on the road to Damascus.

5. My translation from Swedish. Original quotation: “Så tillbragte jag ofta timal i vinterkölden med läsande och bedjande (en dåre talar); i skogens enslighet låg jag knäböjd på snödrifvan [- -].”

The assertion implied by these examples, namely that most autobiographical conversion narratives fall back on – and are structured in line with – one or more paradigmatic patterns that serve as templates for people putting into words their conversions, is not new but, in fact, suggested by several researchers. For instance, Anne Hunsaker Hawkins (1985) uses the conversion narratives of St. Augustine, John Bunyan, and Thomas Merton to exemplify three different conversion paradigms. The first paradigm is represented by a sudden and dramatic conversion (St. Augustine). The second represents a spiritual battle between good and evil, where the conversion is gradual (John Bunyan). The third and more modern paradigm combines the two previous ones and represents more a continuous conversion process that never quite reaches its fulfillment (Thomas Merton).

Referring partly to Hunsaker Hawkins's classification, Inger Littberger (2004, p. 46–51) boils down the amounts of paradigms into one single model that she calls the classical pattern of a conversion narrative. According to her, characteristic features of such narratives are metaphors of death turning to life, old turning to new, and illness being healed. The spiritual battle – often depicted as a fight between good and evil, as a period when stagnation, sickness, and death prevails, or as a desert-like pilgrimage – usually heads towards a decisive turning-point or crisis through which “the old man” dies and is newborn again.

We need not dig deep in Hedberg's narrative to identify several common elements with the models portrayed by Littberger and Hunsaker Hawkins. In addition to the imagery of remote places already mentioned, taken as a whole, Hedberg's narrative is most certainly a spiritual battle where good fights evil. At points, for instance, he speaks about “the darkness of doubt,” how “he is being cast down into the bottomless mud of his misery,” how the devil assaults and attacks him, and so forth. And when he finally finds peace, or when he “finds the right path” as he calls it, he describes it as an “unveiling of his eyes,” as if “the light of mercy and salvation which is God's word was revealed to his soul” (Hedberg, 1847, p. 15).

Following Hunsaker Hawkins's third conversion paradigm, Hedberg's conversion appears as a continuous process with several turning points. When looking at Hedberg's account of his spiritual development, one can distinguish three obvious turning points. The first is set in 1826 when Hedberg is only 14 years old and comes to the realization that “his soul has gotten lost from living God.” The second one appears in the mid 1830:s when he first comes in contact with the Pietist movement and its representatives and later with Martin Luther's Church Postil. The last one is around 1842–1843,

which marks his deprecation from the same Pietist movement.

Referring to literary theorist Northrop Frye, Bruce Hindmarsh argues that this back-and-forth movement can actually be traced back to the biblical plot of suffering, humiliation, and redemption:

What was the pattern that structured these narratives? [- -] Northrop Frye argues that the pattern of original prosperity, descent into humiliation, and return is the overall structure of the biblical story and of the small narratives within it, such as the parable of the prodigal son. He also argues that this pattern has distinctively shaped much of Western literature. This was true for a figure such as John Newton, and it has also been true for the narrative identity of many Christians throughout history. Their personal story replicated the biblical story in miniature and often took the form of an episode in the larger story of God so that their narratives have the same shape as the larger drama of salvation history (Hindmarsh, 2005, p. 345; Frye, 1982, p. 198).

4 THE UNINTENTIONAL CONVERSION NARRATIVE

What the discussion above suggests – both on a general level but also when speaking explicitly about Hedberg's narrative – is that authors of autobiographical conversion narratives seem to rely on general patterns both on the level of detail – such as recurrent and 'recycled' figures of speech or metaphors – but also the level of structure – such as the plot and intrigue. This is true, as we have seen, at least when speaking of Hedberg's account. Consequently, a conversion put into a narrative is, at least to some degree, fiction in the sense that it deploys different narrative strategies in its storytelling (Littberger, 2004, p. 14–15).

Some narrative strategies are more or less conscious and deliberate. For instance, the author selects certain events, omits others, and arranges the chosen ones in a specific – often chronological and logical – order. Other strategies, on the other hand, are more or less unconscious. However, they are nonetheless inevitable in order to facilitate the communication between author and reader. According to history theoretician Hayden White, such narrative strategies are actually what makes historical narratives comprehensible. He suggests that to comprehend a story, its *form* is equally as important as its *content* (White, 1987, p. 42).

As the historian's task is to make the unfamiliar historical events familiar to the audience, he needs to employ figurative language that renders the unknown history comprehensible (White, 1978, p. 94):

For if the historian's aim is to familiarize us with the unfamiliar, he must use figurative, rather than technical language. [- -] The historian's characteristic instrument of encodation, communication, and exchange is ordinary educated speech. This implies that the only instruments that he has for endowing his data with meaning, of rendering the strange familiar, and of rendering the mysterious past comprehensible, are the techniques of *figurative* language. All historical narratives presuppose figurative characterizations of the events they purport to represent and explain (White, 1978, p. 94).

White calls the process by which familiar images and plot structures are “encoded” or transcribed onto the historical events, *emplotment*. A successful encodation – i.e., a well-structured or emplotted narrative – uses figurative language with which the readers are familiar. Such language White calls “pregeneric plot structures conventionally used in our culture to endow unfamiliar events and situations with meanings” (White, 1978, p. 88). In other words, he asserts that there are several generic, conventional tropes or plots that keep recurring in our culture, and which are therefore easily identifiable and recognizable by everyone:

This suggests that what the historian brings to his consideration of the historical record is a notion of the *types* of configurations of events that can be recognized as stories by the audience for which he is writing. [- -] *How* a given historical situation is to be configured depends on the historian's subtlety in matching up a specific plot structure with the set of historical events that he wishes to endow with a meaning of a particular kind. [- -] [N]ot only are the pregeneric plot structures by which sets of events can be constituted as stories of a particular kind limited in number, as Frye and other archetypal critics suggest; but the encodation of events in terms of such plots structures in one of the ways a culture has of making sense of both personal and public pasts (White, 1978, p. 84–85).

The rhetorical power of these pregeneric plot structures and tropes lies in the cognitive and affective resonance they conjure up in the audience (Zarzycka, 2017, p. xx). One could say that the form eases identification with the content. In other words, because the tropes and images are universal, conventional, and immediately recognizable for most people, they are also appealing to the readers and capable of conveying the story even to those who are not familiar with it from before.

The point is that despite Hedberg's explicit and apparent efforts to avoid the genre of conversion narrative, he nevertheless uses a plot structure and figurative language so typical of conversion narratives that he unintentionally ends up producing one himself. At least his account is interpreted as one. The metaphors, archetypes, and pregeneric plots are necessary encodations in the emplotment he creates to familiarize his audience with his experiences. He attaches familiar metaphors to his personal (and therefore other people's unfamiliar) experiences to make them understandable. One could say that Hedberg attempts to create a narrative appealing to the mind. However, he cannot do this without using language that also appeals to emotions.

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The sacred space of gods and saints: Some considerations about the sea and exile in Irish mythology and tradition

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ABSTRACT: This essay intends to reflect upon the Irish higher form of *peregrinatio*, the *peregrinatio pro amore Christo*, among the monks of Celtic or Insular Christianity between the 5th and 10th centuries to understand its extreme significance in Irish culture. We will discuss: 1) its paramount role in the maintenance of Christian faith in Western civilization during the barbaric invasions of the 4th century and the Viking attacks to the English territory between the 8th and the 10th centuries; 2) how it found a compelling evocation in the medieval Irish voyage tales known as *immrama* and *echtraí*; 3) the relationship between the Irish *immrama*, particularly *Immram Brain*, and the *Naugatio Brendani*, one of the most one of the most influential narratives in medieval Europe; 4) its contribution to the understanding of the sea among the Irish in the Middle Ages as a path to repentance, a space of penitence and redemption, in consonance with its conception in the medieval Irish tales of Celtic mythology where it is depicted as the abode of the gods and the location of the Blessed Islands of the Otherworld; 5) its connotation as a voluntary form of exile from which derived a whole tradition of exile both in Irish literature and in Ireland's cultural history.

Keywords: Ireland, Celtic christianity, Sea, Exile, Peregrinatio

When we think about navigation in the medieval context, we envision heroic and robust men mastering the oceans in times when these were not yet fully known. One easily imagines sailors, like Marco Polo, fearlessly going out into the open sea or ruthless pirates threatening sea routes. The idea of these intrepid men hardly awakens the image of Irish monks crossing the frozen waters of the North Atlantic Ocean in the remote 6th century. However, these men, albeit more modest or feeble, were as intrepid as pirates and other navigators. Moved by faith, they would wander the watery paths of exile at the mercy of God's will in order to reach foreign lands, of which they knew nothing, as far as Iceland. This voluntary form of exile depending on the love of God was known as *peregrinatio pro Christo*. Its centrality in Irish medieval culture is so powerful that it found a compelling literary evocation in the voyage tales, which, in their turn, had a huge impact on European literature, as Wooding states: "Exile in foreign lands (*peregrinatio*) was 'second nature' for the Irish, the voyage tales are the powerful literary evocation of that exile. Medieval Europeans evidently found the vision of the Irish pilgrims and exiles to be an attractive one." (xi). Interestingly, the sea would always consist of a privileged route for Irish exiles, such as the ones who traveled to North America from the seventeenth to the twentieth century, whose disposition to cross the oceans,

submitting themselves to God's will, may have found some of its roots in these early Christian forms of *peregrinatio*. Kerby Miller, in his seminal book *Emigrants and Exiles: Ireland and the Irish Exodus to North America* (1985), proved that Irish emigration and exile did not only result from political factors, they should also be envisaged as a social construct. Also, Patrick Ward, in *Exile, Immigration and Irish Writing* (2002), demonstrates how these notions in medieval times have highly contributed to the development of Irish nationalism and identity.

These unique Irish medieval tales are known as *immrama* and *echtraí* and constitute a distinct genre in early Irish literature. *Immrama*, literally meaning "rowings about," centers around a sea voyage where the protagonist comes across several islands lost in the middle of the ocean, associated with the Irish Otherworld. *Echtraí*, or adventures, are tales where the protagonist arrives at the Otherworld, not necessarily situated on an island, without focusing on the journey itself.¹

1. The distinction among the two genres is polemic. Whereas some authors, such as Oskamp, believe that it is impossible to separate the two strictly, others, such as Myles Dillon and David Dumville, defend that they are different: the *Echtrae* were composed in pagan times and survived by oral transmission until Christian monks started to

The Celtic Otherworld is not a specific place. It is scattered through several mounds and mainly through multiple islands located in the West. In the words of Caitlín Matthews, the Otherworld is, for the Celts, “the source of their wisdom, the place of their gods, the dimension in which poets and wanderers are most at home. [It] is generally understood to lie close to the borders of the manifest world, but, more especially, to lie within the compass of one’s ship sailing, to the islands of the further West.” (1989, p: 63)

These Otherworldly Western islands are usually enveloped in a dense mist so that they can seldom be seen. Their godly inhabitants live in everlasting youth, prosperity, health, joy, and beauty. The Irish ‘p+ medieval texts speak of those who decide to face the waters in order to find these islands, where there is no sickness, or sadness, or death, and refer to them by a variety of different names:

Tír na nÓg, Land of Eternal Youth;
Tír Tairrngíre, Land of Promise.
Tír fo Thuinn, Land under the Wave.
Mag Mór, Great Plain.
Tír na mBéo, Land of the Living.
Mag Mell, Plain of Delight.
Tír inna mBan, the Land of Women

The patron deity of these islands is Mananán Mac Lir, who habitually dwells at Emain Ablach – the island of the apples – identified with the Isle of Man. His surname, “mac Lir,” means “son of the sea,” *lir* being the genitive of the Old Irish word *ler*, “sea.” The 1st century B. C. boat found in the Brougher Hoard, in 1896, in County Derry is understood to be a votive offering to Mananán, which presumably testifies to his cult in the British Isles.

These islands, which are the source for the Isle of Avalon in Arthurian myth, are obviously not mapped. From 1325, however, medieval maps start to depict a mysterious Island in the West of Ireland known as Hy Brasil, having no connections to the country we know today as Brazil. Its name probably derives from the Irish clan Bresail, whose members inhabited Northern Ireland.² Mythical Hy Brasil soon began to be described as an earthly paradise hidden under the waters appearing to human eyes every seven years.

Sometimes, the deities inhabiting these islands crave contact with human beings they attract to their

write them down; *immrama*, on the other hand, are of ecclesiastical inspiration and execution.

2. “(...) the curious term Hy Brazil which is found in a variety of forms, and exclusively in non-Gaelic and comparatively later sources. It would, indeed, seem to reflect an Irish tribal name such as *Úi Bresail*, “descendants of Bresail”, but how exactly the *Úi Bresail* came to be associated with the idea of wonderful islands to the west of Ireland has as yet had no satisfactory explanation.” (Carney: 47)

aquatic dwellings. In the Irish *echtrae*, it is frequently a beautiful woman who suddenly appears to the hero, offering him a silver branch of an apple tree together with her eternal love. The hero and the otherworldly woman depart to her island in the open sea until he finally decides to return to his homeland after believing that only a short time has passed. Instead, he finds out that he had been away for many hundred years and all those he knew were already dead.

This is basically the main plot of *Immram Brain*, composed by the end of the 7th century or the beginning of the 8th and probably one of the oldest Irish texts. A woman from the Otherworld carrying a silver branch from an apple tree of the Island of Emne, where Mananán Mac Lir lives in everlasting joy, pays a visit to Bran, summoning him to travel into *Tír inna mBan* - the Land of Women. After two days at sea, Bran and his men catch sight of Mananán riding a chariot who tells them that they are sailing upon a flowery plain. The navigators reach the Land of Women after encountering many other islands on their way. There, they live happily for more than a hundred years although they think that only one year has passed. Nechtan, one of the sailors, feels homesick, and the men decide to return to Ireland but, before leaving, the women’s leader advises them not to put their feet upon the shore. Many years had passed. Bran does not recognize the people gathered on the Irish shore, nor do these recognize him. Nechtan jumps out of the boat, and as soon as his feet touch the ground, he turns into ashes. Bran stays advisedly inside the boat. He writes down the story of his sea voyage in ogams and then sails back with his company into the open sea where they probably still dwell.

Although entitled as an *immram* in late 14th century *The Yellow Book of Lecan*, *The Voyage of Bran* appears as an *echtra* in others, which has led to a lively debate among critics about its correct designation. This narrative, sometimes described as an *immram*, sometimes as an *echtra*, contains all the elements we have considered so far. It maintains a close relationship with other *immrama*, such as *Immram Maile Duin* (*The Voyage of Mael Duin*) and the text *Navigatio Sancti Brendani* one of the most influential narratives in medieval Europe, surviving in 125 manuscripts.

The *Navigatio*’s protagonist is Saint Brendan of Clonfert (484 – c. 577), also known as “the Navigator” or “the Voyager,” one of the twelve apostles of Ireland. In Portugal, there are three manuscripts of this text: Porto, BPM, Santa Cruz, 34 and 69 and Lisboa, BN, Alcobaça 380, this last one belonging to a later tradition anchored in a re-elaboration made in the court of Henry I of England by an author named Benedeit. This version was produced in the 13th century and the other two in the 12th and 13th centuries. They were all published by Aires do Nascimento in

1998, in an important critical edition - *Navegação de São Brandão nas Fontes Portuguesas Medievais*.

The *Nauigatio* has been understood as an *immram*, even though it is written in Latin and not in Gaelic and as a narrative in which the voyage is “a metaphor for peregrinatio and the human existence in anticipation of the life to come.” (Wooding, 2000: xxiii). The several experiences these saint navigators find at sea, both dangerous and favorable, symbolize the threats to the soul throughout human life and the rewards of heavenly bliss. In his own texts, Saint Columbanus (543-615) compares the life of a believer to a journey in a spiritual ship guided by Christ and the understanding of the divine to the depths of the sea.

For the past few years, many scholars have debated the affinity between *Immram Bran* and other *immrama* and the *Nauigatio* and their affinity with Irish mythological sources. Early criticism considered the *immrama* to be pre-Christian in origin, developing from pagan Celtic myth. Recently, however, many critics have suggested that the Irish *immrama* are based on the Latin voyage tradition of the *Nauigatio*, having been composed later than the *Nauigatio Brendani*. As such, all the *immram* texts are the product of a Christian milieu, even those which do not portray Irish monks as navigators, as Wooding argues: “The (...) *immrama* which do not feature monks as protagonists may be seen as early explorations of the ‘journey motif,’ as secularisations of the monastic concept to become a metaphor for life as a journey.” (xxiv). According to this new perspective, the several islands mentioned in the narratives are no more than allusions to the biblical Promised Land. Yet, this assumption is not entirely consensual. Proinsias Mac Cana, one of the most prestigious Celtic scholars, maintained that the ancient Celts cherished the idea of the Otherworld so that islands such as *Tir inna mBan*, the Land of Women, are originally non-Christian.

Although the *immrama* was produced at the beginning of the 8th century, their setting belongs to the 6th – the age of saints in Irish history and “the age of the first vogue of the sea pilgrim” (Thrall: 17). In fact, the vast majority of the Irish navigator saints lived during the 4th to the 10th century when Celtic or Insular Christianity developed with the foundation of religious houses, such as Armagh and Emly, respectively established by Saint Patrick and Saint Ailbe, and the beginnings of the missionary movement which would be the main factor of the maintenance of Christian faith in Europe during the barbaric invasions.

One of the most famous of these missionaries is Saint Columbanus, whom we have already referred to, who founded several monasteries in the continent, namely in France and Italy. Perhaps better known is Saint Columba or Collum Cille (521-597), who traveled by sea with twelve other monks from

Ireland to Iona, in Scotland, where he founded a monastery in 563, that would be the center of Celtic or Insular Monasticism.³ Iona was soon transformed into a school for missionaries and led to the foundation of other religious houses, such as Kells and Lindisfarne. From these, monks would start their *peregrinatio*, taking with them their love for learning and teaching and the knowledge of the sacred scriptures. In a time when Europe was facing the barbaric attacks of pagan peoples, Insular Monasticism was paramount in maintaining faith and knowledge, as Thomas Cahill argues in his book *How the Irish Saved Civilization*:

Wherever they went the Irish brought with them their books [...], wherever they went they brought their love of learning and their skills in bookmaking. In the bays and valleys of their exile, they reestablished literacy and breathed new life into an exhausted literary culture of Europe.

And that is how the Irish saved civilization. (195-6)

The Christian idea of *peregrinatio* was well-founded in Europe, particularly since Saint Augustine of Hippo suggested that all Christians should live their lives as a form of pilgrimage awaiting the everlasting joy in the kingdom of heaven. In the Celtic countries, especially in Ireland, this idea was imbued with two additional meanings: first, this conviction should be materialized in the form of self-imposed exile to pursue personal salvation, and, second, it also constitutes a form of penance. The *Sanas Cormaic*, the *Cormac's Glossary*, preserved in six manuscripts, also states that Irish criminals were expelled from society, mainly from the land being sent adrift beyond the ninth wave without food or drink in a boat (*cuireadh*) of one hide, without oars. This form of punishment, believed to be post-Christian, “shows a certain humane shrinking from deliberately taking a life, a desire (...) to leave the question of guilt and the ultimate decision between life and death in the jurisdiction of God. (Byrne, 25)

These sea journeys, either in search of an earthly paradise or as a result of punishment, may have been related to the missionary character of Insular Christianity, as William Thrall defends:

One cannot always distinguish in the early records, among pilgrimages made into the unknown sea in search of a hermitage or paradise, penitential or punitive voyages of indefinite destination, and pilgrimages overseas ‘for

3. Most of what we know about Saint Columba comes from Adomnán of Iona's *Vita Sancti Columbae*, written in the 7th century, where the abbot refers to many clerical voyages testifying their existence before the emergence of the *immram* genre.

Christ's sake', where there was a definite earthly destination and often missionary intent. Monastic and missionary establishments often resulted from pilgrimages not originally missionary in character. Voluntary expatriation was a primary feature of the pilgrimage. (20)

Nevertheless, by Carolingian times, this Irish practice of peregrination overseas – the superior form of peregrination – came to be disregarded since Benedictine Rule promoted the ideal of *stabilitas* within a single monastic community based on daily routines of prayer and communal work. Also, Abbot Maelruain (d. 792), who founded the monastery of Tallaght, in Ireland, in 744, severely condemned pilgrimage overseas, defending that the monks should be solely dedicated to contemplation, study, and labor. He was, in fact, highly responsible for the *Céli Dé* movement ("servants of God" movement), a reform within the church that only considered the lesser form of peregrination, which consisted of traveling within the country. Both the Benedictine Rule and the Rule of Tallaght contributed to the replacement of sailing overseas by an anchorite form of life and, therefore, to the dislocation of wandering sea voyages from the sphere of real-life to the realm of literature in the 8th century. That is why, for Dorothy Ann Bray, the *Nauigatio*

[...] reflects this changing attitude towards pilgrimage and exile: the sea journey is still an ascetic ideal, a voyage for the love of God, but allegorically rooted in the stability of monastic life, wherein the rejection of worldly affairs and the regular cycle of prayer, fasting and celebration in the company of the fellow monks is the ideal way of life. (178)

The popularity of the *immrama* evidences how the sea was in medieval Ireland a space of quest and knowledge, religious initiation and revelation, and, mainly, the place of the Blessed Islands where the sea pilgrims could finally achieve salvation. As we have stated before, recent criticism sustains that these narratives are Christian in origin. In the words of William Thrall:

[It is] more probable that the pagan materials, Celtic or classic, are borrowed embellishments for voyage tales which sprang originally from the rich soil of religious legend in Ireland, particularly the legendary accounts of adventurous sea pilgrimages made by sixth-century Irish clerics.

Nonetheless, however pagan they may be, the Celtic materials also testify that the sea was already highly revered among the ancient Celts. We are using the word "Celt" to refer to the tribes that occupied Ireland from 900 b.C until the spreading of Christianity in the 5th century. Ireland was not a part

of the Roman Empire since the Romans never invaded it. It had several contacts with Christianity, some of them mentioned by Prosper of Aquitaine (390-455), a disciple of Saint Augustine of Hippo. In his *Chronicle*, he says that, in 431, Palladius was sent to Ireland by Pope Celestine to bring Christian faith into the pagan Irish. There were also pre-Christian communities in Ireland before the coming of Saint Patrick in 457. Christianization of the country is nevertheless attributed to Patrick.

Also, as the Celts did not write, we cannot recreate their pagan customs and beliefs with certainty. The writings of Greeks and mainly Roman authors are scarce and primarily related to Gaul, and the extant written records were compiled during the later Middle Ages by Christian monks. Even archeological artifacts are at a loss in explaining the religious practices of the Celts. The vast majority of what we know about Irish Celtic mythology comes from the Christian period, namely from the Old Irish literature produced in medieval Ireland:

The earliest written evidence for native gods comes from early Christian Ireland, not from the pagan period, this is a pivotal fact that must be emphasized. Christianity did not entirely consign the pagan gods to the scrapheap, but the consequences of its arrival were dramatic and affected Irish society on every level. Pagan cult and ritual were discontinued, and a process was set in motion that eventually saw a small number of former deities reincarnated as literary characters. (Williams, 3)

Mark Williams is clear about the fact that it is impossible to have first-hand access to Celtic myth. Most of the deities we are familiar with nowadays only appear in literary texts, and we cannot reconstruct their role and importance in pagan times. Also, we cannot trace the relationship of these literary gods with the ancient Celtic gods and goddesses of Celtic paganism, also because, in the medieval narratives, these divinities are not associated with any type of ritual or cult. It is only with these assumptions in mind that we may speak about Celtic mythology.

These literary, mythological records and archeological artifacts evidence that the Celts associated the waters of the sea and lakes or rivers to divinities, mainly female ones, who attested for its healing properties. The Romans later transformed some of these ancient Celtic places of worship related to healing goddesses into thermal baths, such as, for example, the Roman bath in Bath, Somerset, where the main-spring was an ancient shrine dedicated to the Celtic goddess Sulis, equated with Minerva by the Romans. These aquatic goddesses were also fertility divinities since they were identified with the land whose features changed according to a continuous cycle of death and regeneration made visible by the year's

four seasons. It was usual among the Celtic communities the offering of several objects and artifacts to propitiate these goddesses, either to bring good crops or to regenerate the wounded body after the clash of war.

The sea was also the main element of protecting the land, encircling the island as if it were a cocoon. This sea prevented the Romans from adding Ireland to the Empire. At the same time, the space beyond the visible line of the ocean is related to the unknown and therefore to the Otherworld. The *Lebor Gabála Erenn, The Book of the Invasions of Ireland*, a syncretic history of Ireland from the days of Creation until the Middle Ages, which survives in several manuscripts from the 12th century, states that Ireland was invaded by six different races, all coming from beyond the “ninth wave.” As the Celts considered the number three to be sacred and associated with the gods, the waters beyond the ninth wave (nine being three multiplied by three) give access to an ocean full of possibilities. The first three invading races descended from Noah and found Ireland after the Deluge. The fourth race – the Fir Bolg – was vanquished by the race of the gods – the Tuatha De Danann or tribe of the Goddess Dana. Dana or Danu is related to water since her name can be found in several river toponyms, such as the rivers Don and Dneiper (Russia), the river Dniester (Ukraine), and the river Danube (Switzerland). In Irish myth, all female deities can be envisaged as Dana’s counterparts, being, such as happens with her, identified with the waters which themselves have created, such as Bóand, whose body gave rise to the River Boyne. The *Cormac’s Glossary* refers to her as Ana and associates her to Brigid, one of the most important Celtic deities adored in the Roman period, as several statuettes and inscriptions testify. These ancient gods of Ireland were finally moved away by the 6th race of invaders – the sons of Mil, descendants of Goidel Glas – the Goidelics or the Irish.

In the *Cath Maighe Tuireadh (The Battle of Moytura)*, one of the most important narratives of the mythological cycle, the main treasures of the Tuatha De Danann come with them from the sea: the Lia Fail, the Coronation Stone at the Hill of Tara which shrieks every time the true king of Ireland touches it; Lug’s spear, Nuadu’s sword and the cauldron of The Dagda, the father-figure of Irish myth. This cauldron came from the city of Murias, a word formed by the root *muir*, which means “sea.” It has regenerative powers, and it is bottomless, providing food in abundance for all men, thus incorporating the same characteristics the Celts attributed to the waters as sources of cure and rebirth. The Dagda’s cauldron is clearly associated with other cauldrons mentioned in the Celtic myths, both from Ireland and Wales, namely the ones related to the divine gifts of divination, wisdom, and poetic inspiration, features shared by the ocean from which they came from

since the magical powers of the Tuatha De Danann were acquired in the islands of the open sea. These cauldrons of inspiration, prophetic powers, abundance, and regeneration will ultimately be transformed into the Holy Grail of Arthurian legend from the 12th century onwards.

All the medieval narratives we have discussed, either *imrrama* or other tales compiled throughout the Middle Ages, show that the sea, and particularly the waters of the Atlantic Ocean, was among the Celtic peoples a place of repentance, an element of purgation, the abode of the gods and the path of salvation for saints and navigators. The waters may sometimes hide dire sea creatures, and some of the islands may be inhabited by strange and devilish figures, but these are never as fatal as those we may find in other European contexts. There are no terrific beasts in Irish myth such as Cila and Caribdis or other terrible sea monsters of classical and medieval narratives. We believe that the main reason for this fact is, on the one hand, the very nature of Celtic mythology in which the deities, mainly female ones, were identified with the waters bringing them their curative and regenerative powers. On the other hand, and perhaps most importantly, the development of Irish monasticism and Insular Christianity played a fundamental role in the preservation of knowledge in Ireland and all the western world. The navigator saints of Irish history and literature dared to cross the waters of the vast ocean at their own will, taming them with their faith, thus opening new maritime routes years before the Vikings or the Portuguese and the Spanish. Thanks to these early sailors, the sea became in Ireland the sacred space of the Blessed, their preferred path to white martyrdom, from which derived a whole tradition of exile both in Irish literature and in Ireland’s cultural history.

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Creating the Otherness: Mind and emotions in the European making of 16th-century Japanese people

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ABSTRACT: The Japanese man of the 16th century is presented Europe by the hand of the Society of Jesus, who built an image according to the reality of the European world, playing very skillfully with mind and emotions, two concepts that had an impact here determinant in the discovery of a new culture. The Jesuits' letters arrive in Europe full of information, and we managed to capture the difficulty that was, for the religious people, due to the tight control of the institution, to balance mind and emotions, in a constant dialectic and dynamic that determined the way Europeans understood others and themselves. The mind is present for the need to adapt the information to the rules and the objectives that Society of Jesus intends to achieve, but emotions are also there because those who write and describe the Japanese reality cannot be totally rational and impartial. We try to verify objectivity and impartiality in the image of Japan and the Japanese man that the Jesuits presented to Europe because, in fact, Japanese culture and especially the Japanese people in the European mind are a creation of the Society of Jesus. We try to capture what comes from reason and emotion, which is not always easy because these two elements are almost always present inseparably.

Keywords: Japan, Jesuits, Mind, Emotions, Creation

1 SEE END CREATE

The etymology of the word Emotion (from the Latin *emovere*: e + *movere* = outside and movement) allows us to observe that emotions are movement, which comes from within (which we feel inside and externalize through action) and play a very significant role in the development of reasoning and decision making.

Emotions result from a reaction to an environmental and cognitive stimulus that produces several experiences and different results; this reaction is visible in the interpretation that we all make of reality, which is necessarily different depending on the interpreter.

Reason is the capacity of the human mind that makes it possible to reach conclusions from premises, proposing reasons and explanations for cause/effect and allows us to compensate the difference between interpretations, appealing to what is rational and objective and, in this way, a dynamic fluid is established that allows the debate of ideas and the advancement of knowledge.

Knowing how to manage feelings is decisive for a balance between emotions and mind because when we decide to do something, we always have two mechanisms in constant conflict: the emotional and impulsive one, which can lead to choices that are out of sync

with reality; and the rational and objective mechanism, which weighs mainly the ends and consequences.

Since history is the science of the evolution of Humanity, in time and space, of its growth, thinking, and action, the historical past is almost always presented to us through written sources and, according to Chartier (1988, p:16), the historical becoming and culture result from the relationship between *ways of doing* and *ways of seeing* - practices and representations¹.

Thus, a written historical record always presents us with a social reality that is thought out and constructed, that derives from a reading and creation by the writer, and that, while being a particular and individual vision, is influenced by several variables.

In the present case, the reality - 16th century Japan - is perceived through the eyes and hands of Jesuit missionaries (the letters) who send to Europe reports and descriptions that shape, in the European mentality, an image of Japanese culture and people.

1. Practices - ways of doing, are associated with sources and documentation; the representations-ways of seeing, "realities of multiple senses," are "intellectual schemes that create the figures thanks to which the present can acquire meaning, the other become intelligible and the space can be deciphered."

Reason and emotions “work” in the same space - the brain - and the two systems communicate with each other and affect behavior, something very visible in the options taken by the Society of Jesus regarding the information sent to Europe about Japan.

Sixteenth-century Europe (re)discovers itself through its relationship with the Other, and it was the Portuguese, especially through the Society of Jesus, who were responsible for this discovery.

A culture of planetary plurality (Barreto, 1994, p:22) develops, which promotes an exchange (and not just conflict) and cultural interaction, possible because of the information that was arriving in Rome, by the hand of some Jesuit missionaries (for example, Fathers Francisco Xavier, Luís de Almeida, Gaspar Vilela, Cosme de Torres or Luís Fróis), who regularly sent letters describing the Japanese empire. This writing tries to follow what Fróis (1935, p:3) understood to be the most correct: To tell the truth, pure and simple, as this is the main ornament and the basis of all historical writings.

The new religious order, *Societas Iesu*, brings to the Far East the need for a Catholic Europe to assert itself in the face of the advance of Protestantism and the performance of its elements will always have this in mind, in a visible effort to harmonize reason with the emotions they feel when experiencing a reality so different from their own.

2 THE CREATION OF JAPANESE PEOPLE

The Japanese are the people who, globally considered, deserve the greatest admiration from the Portuguese of the 16th and 17th centuries, and in this territory, greater contact allows us to gather valuable information regarding the uses, customs, and habits of a culture that, at first glance, seems so different from the western one, and yet sometimes has points of convergence, namely a lordly society dominated by a warrior aristocracy.

We recall that the first references to the Country of the Rising Sun in the Western world appear, fleetingly and ambiguously, in the accounts of a 9th- century Persian geographer, and later with Marco Polo, who provides brief and somewhat erroneous information, both as to location and characteristics of a territory he refers to as Cipango². The most accurate information arrived only from the 16th century on, through the Portuguese: first, in 1515, Tomé Pires in *Suma Oriental*, in which the name Japan - *jampon* - already appears, derived from the Malay *japun* or *japung*; later Jorge Álvares gives an account of what he witnessed when he went to Japan in 1544, this being the first direct record by

2. Cipango - approximate transcription of the Chinese Jih-pên-kuó which translates sun-origin-country, which will give Country of the Rising Sun.

a European about the archipelago, describing the landscape, the climate, the animals and its inhabitants; and then Fernão Mendes Pinto (1989, p: 824) praises the Japanese: all these people in Japan are naturally well-disposed and inclined to be sociable - while pointing out that, by nature, they are very much given to military exercises and to mockery and wordplay.

The second half of the 16th century witnessed a process of acculturation - inculturation that brought together two worlds and two distinct cultures and East-West contacts went through several stages: first, the environment experienced since Francisco Xavier's presence in the territory until at the end of the 50s, it was characterized by the euphoria of discovery, mutual curiosity, and some understanding; then, in the 60s, we witnessed the awareness of the limits of difference and, along with the conversions, the distrust that became more pronounced in the 80s.

From the very first contacts, the opinion of Francisco Xavier, in 1549, will be followed by other Jesuits and the become “official” vision transmitted to Europe for decades:

These people are the delight of my heart [...] and they are people of perfect conversation, generally good, and not malicious [...], they do not kill or eat anything they create [...] people of much sense and curious to know (CE, I, fls.2; 9v; 10; 13)³.

Shortly after that, Cosme de Torres writes from Yamaguchi in late September 1551:

They are discreet as far as one can care [...]. They are curious to know [...] they have wonderful conversations [...] and if I were to write down all the good things that are in them, I would lack ink and paper rather than material (CE, 29 September 1551, I, fls.16v.-18v.).

However, to Luis Fróis, a Jesuit missionary who lived more than 30 years in Japan, we owe the most extensive and complete descriptions of the Japanese way of being and living. He is a Jesuit who assumes a new form of thinking and acting facing a new culture, and he is one of the best examples of the conflict between Mind and Emotions, using both in the analysis that he makes of the Japanese people. Through a long correspondence, Fróis's way of seeing the various Japanese aspects of life stands out, including society's aspects.

In Japan, the Society of Jesus works simultaneously with the two extremes of society: with the

3. In 1598, the largest collection of letters (209) from Jesuit missionaries concerning Japan was published in two volumes in Évora; in this work all citations in the text of this printed source are referenced as follows: CE - Letters from Évora -, the volume (I or II), the date of the letter and the folio/page.

elites and with the most disadvantaged, obtaining support and protection (from the powerful) and credibility and recognition (from the poorest).

Fróis benefits from the proximity to these two poles of Japanese society, in a powerful connection between the person who observes (and gets to be a participant) and the “object” analyzed.

Jesuit writing reflects a constant balance between reason/mind, which constrains, limits, and obliges - and emotion - derived from the missionaries’ living reality.

Jesuit’s eyes on the civilizational *Otherness* are the eyes of Europeans and religious men, but above all, the eyes of people who see, describe, and interpret, always conditioned, another man.

The curiosity and warlike temperament of the Japanese are characteristics mentioned since the beginning of the contacts, and if the first is a positive factor in the relationship with the westerners, the second brought some problems:

they take great delight in seeing foreign people, and they are very curious in wanting to know the minimum peculiarities of strange kingdoms [...]. They are naturally superb, very bellicose, inclined to arms (CE, 20 February 1565, I, fls.172-172v.).

The violence and severity of the military chiefs, especially of Oda Nobunaga, are emphasized, and even somewhat excused, by the Jesuits as they are understood as necessary to keep the territory under control and at peace, which was also in line with the Society of Jesus’s wishes.

The reading made of the Japanese reality is a Christian reading, in which reason and the interests of the religious institution predominate, but which allows a glimpse of some partiality derived from the sensibility and emotions of the one who writes.

For example, the practice of abortion and infanticide is very disturbing to the Society of Jesus, and here the Jesuits’ attitude in the letters is very critical: there are innumerable abortions, and many children are killed at birth, something of great regret (CE, 1 October 1585, II, fl.129).

Another situation: it is also difficult for Jesuits to capture the whole meaning and symbolism of the practice of honorable suicide – *seppuku* or *harakiri*. Resende (2017, p. 294) notes that the Company tried to handle this issue with great caution since, more than an institutionalized practice among the warrior elite, it was a ritual that guaranteed the honor of the warrior and his descendants and had significant social and cultural implications.

Thus, Jesuits almost always choose to omit episodes in which this practice occurs, reason prevailing as this avoids direct criticism of the ruling elite who hold the institution’s fate in their hands.

We realize that the letters lack much information regarding some details of daily life, the internal

organization issues of the Japanese territory, and the various administrative reforms undertaken, for example, during Oda Nobunaga’s rule.

One of the best examples of the articulation between reason and emotions is just in Fróis’ attitude toward the great military chief Oda Nobunaga, who initiated the reunification of Japan.

The Jesuit is aware of Oda’s character and the violence he sometimes resorts to, but while acting according to Society’s interests, the warrior’s authoritarianism and arrogance are shown in the letters in a positive light.

There is, indeed, a selective logic in what is exposed in the letters, and, considering the context in which the work is produced, the writing itself is the reading of another “writing.”

The Company emphasizes the Japan of chaos - political (until the reunification undertaken by Oda Nobunaga and Hideyoshi); religious (with a multiplicity of sects that favor the expansion of Christianity); and military (with numerous confrontations), to highlight his missionary work in this territory.

In the Jesuit epistolography, we are presented with a distorted view of history, resulting from the combination of the interests of the Society of Jesus - political, propaganda, and didactic objectives - personal limitations and even prejudices that are reflected mainly in what has to do with religious experience.

3 CLOSING REMARKS

The image of the Japanese that was transmitted to Europe in the 16th century was a Portuguese and mainly Jesuit creation, and we emphasize that social reality is always thought, constructed, and only afterward presented.

We also point out that the European image of the Japanese people is very much a representation, reflection, and condition of those who write (the Jesuit missionaries) but also an appropriation - creative invention in the reception process (Chartier, 1988, p:16)-, a reading and an interpretation of the those who read (the European).

The Letters prove, on the part of the Jesuits, the firm will and the effort to integrate and accept this very different world - inculturation - and the portrait that the Jesuit epistolography provides of the Japanese reality is, in our view, an accurate portrait, however partial, selective, and conditioned, which does not deprive it of merit or importance.

The image of the Japanese that appears in Jesuit documentation turns out to be very limited in that we look mainly at the governing elites, the part of society with whom the Jesuits kept close contact because it was vital for the survival of the religious institution.

It is still a partial image, not complete because it only reveals the warrior and the religious, leaving a very limited image of the “common people”;

finally, it is also partial because it leaves aside the *daimyos* not converted to Christianity.

We can find the reason in the selective logic through the filters that the information takes until it reaches the reader: essential social practices are ignored (for example, the aforementioned *seppuku*), and we know that the letters suffer cuts, omissions, and additions.

Objectivity, while desirable, is never fully achieved, and we see here a Japanese who results from a construction, consciously and voluntarily elaborated by the Society of Jesus, with very specific purposes: to enhance the work of the institution in the Japan Mission and to increase its prestige in a religiously reformulating Europe.

While still being a very close description of reality, the information contained in the Jesuit documentation is, in fact, a representation - that results from the balance between Reason and Emotion - of what indeed was the reality.

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Mind and emotion in cinematic recreations of three Shakespeare plays

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ABSTRACT: The present paper studies the process of creation through adaptations of three different Shakespeare plays. We hypothesize that film adaptations are neither artifact independent of their sources nor are they slavish copies. Instead, their creation involves design and the work of the mind in which the changes involved do not challenge the status of the source text but offer additional layers of meaning through new modes of production. The paper investigates the results of the change of setting, point of view, or the juxtaposition of several media. The major characteristics of *Prospero's Books* (1991), *Rosencrantz and Guildenstern Are Dead* (1990), and *A Thousand Acres* (1997) are discussed in the paper to prove that adaptations are creations that do not replace the source or challenge their status; they embed the old text and add to the story their own extra layers of meaning, however, besides being adaptations, they are also cinematic texts that can be viewed on their own, without prior knowledge of the source as well.

Keywords: Film adaptation, Fidelity discourse, Palimpsest, Artifact

As the end product of a process, film adaptations show designs that are a matter of artistic choices and are the outcome of a long process of pre-and post-production. In order to be created, they involve the work of several professionals, creators, artists.

Due to the inevitable link, an adaptation is always considered in terms of its source. Once the relationship between a source artifact and its adaptation has been established, discussing the nature of this relationship—either to the detriment or the benefit of the adaptation—can not be avoided. Film adaptations, involuntarily, trigger the matter of fidelity to the source work. Academic criticism and journalistic reviewing (Hutcheon, 2006, p. 2) regard adaptations as second-class artifacts, inferior to their source.

Robert Stam offers several explanations of this status; a strong reason is the hierarchical view on arts, i.e., “*a priori* valorization of historical anteriority and seniority” (2005, p. 2). In other words, adaptations, having been created later, are inferior to their source; in other words, film as such is inferior to literature because it was born later.

Another reason for adaptations being seen as inferior is iconophobia, that is

the deeply rooted cultural prejudice against the visual arts [...] traceable not only to the Judaic-Muslim-Protestant prohibitions of ‘graven images’ but also to the Platonic and Neoplatonic depreciation of the world of phenomenal appearance. (Stam 2004 qtd. as cited in Borbely, 2020, p. 14)

In Stam’s view, cultural studies, narratology, reception theory, and innovation in film technology all contributed to a different view of adaptations. Among the trends he mentions, structuralist semiotics offers the tools to read all artifacts as *texts* as they share the same sign system (Borbely, 2020, p. 16). Adaptations thus are not entities that grow out of literature but independent texts.

Since the degree of fidelity to the source represented the main criteria used to analyze adaptations, we will present some of the most well-known ones. Some of these refer to adaptations in terms of the degree of fidelity. Geoffrey Wagner divided adaptations into three categories: *transpositions* show a small number of changes, *commentaries* alter the source to some extent—most feature films do this, they comprise the hundred-page long stories into a generally 90-minute long film—and *analogies*, which present radical changes mostly in setting (Wagner, 1975, pp. 222–226).

Another approach was that of Dudley Andrew, who used the term fidelity to *spirit of the novel* (Andrew, 1984, p. 100) to label adaptations that transposed the “tone, values, imagery, and rhythm” of the original, while at the other end of the pole stand adaptations faithful to the letter in which the story, characters, setting and themes to screen as they were presented in the book.

These categorizations seem to suggest that the original is deconstructed and a new artifact is constructed in a different medium. Although they do conjure up the notions of translation into another

medium, film adaptations are independent cinematic texts. They are autonomous pieces that are in an intermedial relationship with the source. We argue that film adaptations are not copies of stories that were written before but recreations that through redesigning, reworking the original, become independent creations.

To prove this, the paper is organized around the discussion of three adaptations of various Shakespearean plays. The discussion highlights the following points: due to their design, adaptations are creations in which what they recreate is embedded, and the source serves as foothold to interpret these adaptations. However, they can be read as independent texts as well. To this end, we have chosen *Prospero's Books* by Peter Greenaway (1991), in which several media are juxtaposed; *Rosencrantz and Guildenstern Are Dead* by Tom Stoppard (1990), in which the point of view differs from that of the source; and *A Thousand Acres* by Jocelyn Moorhouse (1997), a film adaptation of a novel that is the reworking of a Shakespearean play. These adaptations have been chosen due to the degree of changes included that reveal additional layers of meaning through their new design.

1 A CINEMATIC STUDY ON ADAPTATION: *PROSPERO'S BOOKS*

Prospero's Books could be read as a study on adaptation, the film is an artistic rendition of adaptation theory, and it addresses many aspects of transposing written text to the screen. “The film not only adapts *The Tempest* to the screen, it also translates the text into a flood of literal, architectonic images that deconstruct categorical distinctions between the book and visual culture” (Tweedie, 2000, p. 111). The adaptation can be seen as a translation of the source text, a process in which the main goal is to render the source text in the target language to carry the same meaning as in the source language.

An adaptation always invites questions regarding the relationship between itself and the source text. A frequent trope is the fidelity of some kind to the source text, be it fidelity to the letter of the novel or its spirit (Andrew, 1984, p. 100). Other aspects of the relationship concern the spectacle, both in terms of setting and actors—as especially in the case of heritage films, the setting often is raised to the level of a character leading to heritage tourism even; in addition to this, the actors' fame may outshine the story. Tweedie formulates the three “overriding concerns in film adaptation” thus: first, the written text is “overwhelmed by the spectacle on the screen, or offscreen,” referring both to the importance outdoor and indoor setting is given in heritage film onscreen, and to the films becoming star vehicles (2000, p. 105). The second concern he formulates is

whether the film will present a faithful rendition or whether it “unsettles” the book's canonical status (2000, p. 105). He uses “faithful” in quotation marks with all the understated meanings the word has acquired. The third question he formulates regards hierarchy; however, not in the sense of the film being inferior to the written text – his question takes into consideration the equal status of both artifacts:

[...] can a film incorporate a classic text without inviting comparisons to an idealized original, without capitulating to that original's cultural capital, without merely blowing the dust off old and venerated volumes? (2000, p. 105)

Prospero's Books addresses all three questions. The setting is so extravagant that it remains on the level of symbol; it is not a star vehicle but challenges the actor and requires a master of the art. Tweedie looks at *Prospero's Books* from the point of heritage films and believes that Greenaway's film undermines the certainties of heritage and the sanctity of canon due to the baroque setting (2000, p. 105). This adaptation of *The Tempest* is not a heritage film that displays realistic costumes and settings. The lavish and impractical costumes that make it difficult for the courtiers, Prospero and Miranda, to move indicate that the story of how Prospero was exiled to an island, his time there, and his return to Milan are not the focus of the adaptation.

Due to the modes of presentation in the film—with texts, images, and texts written on the screen being superimposed—the viewer receives a complex role. They are placed at the crossroads of arts because the receiver is the viewer of the film, the reader of the text that appears on the screen, and the beholder of the art project (Tweedie, 2000, p. 105). Thus, Tweedie's third concern is also addressed, namely, the film's mode of presentation is so innovative that it neither surrenders to the source nor does it blow off the dust from the old text. Rather, because of the complex presentation of the text, *Prospero's Books* is an “emblematic story of literature adapted to film,” and the clash between Prospero's books and their adversaries on the island represent the clash between classic text and film adaptation (Tweedie, 2000, p. 105).

The genre of the source text has an important role, as adapting a novel to film differs from adapting a play. In Barnes's view, the cinematic adaptation of a play is to “re-present,” to make the theatrical representation present (2019, p. 176). When making an adaptation of a play, Barnes points out that cinema operates on two levels because it operates as itself and the theatrical performance. It works on the level of cinema as Greenaway captures actor John Gielgud as Prospero, and at the same time, it works as a play because it connects that performance to

a “centuries-old, Shakespearean performance tradition with its own history of seeking immediacy” (Barnes, 2019, p. 176). Barnes also argues that a filmic adaptation of a play “must bring to life both photographic images and theatre that combines literature and the embodied performance” (2019, p. 177). Therefore, *Prospero's Books* invites many layers of interpretation as it is a far more complex reworking of *The Tempest*. It brings in the readings of the source play and adds them to the layers of meaning of the film.

This adaptations complexity lies in the fact that exposes itself as an artifact.

Prospero's Books [...] articulates clearly the constructed nature of its cinematic world through overt textuality, a stress on plastic soundstage as setting, and a self-conscious concern with performance and cinematic assemblage. (Trimm, 2007, p. 28)

He highlights the constructed nature and not the mimetic feature presenting or copying reality.

The constructed nature of the text can be experienced through the many photographic insertions and superimpositions and “the seemingly-extradiegetic, narrative insertion becomes magically diegetic” – when Prospero appears in a digital window above the patriarchs (Barnes, 2019, p. 184). What seemed to be diegetic image, i.e., an image from the story, is superimposed on another image while each presents its own storyline. In addition to superimposition, frames are continually inserted within a frame, which is seen as bringing hypermediality into the process. Thus, Rogers suggests, the linear construction of the story is thus questioned (2008, pp. 14–15). Due to the juxtaposition of windowed screens, images, and written signs, writing as such being performed on the screen, Trimm believes that the text writes over itself, and therefore it becomes its own palimpsest (Trimm, 2007, p. 32).

The film's palimpsestuous nature has been highlighted not only in connection with images but also sounds. In *Prospero's Books* sound is as important as images. As far as music in Shakespeare's plays is concerned, Rogers notes that the noblemen were forbidden to perform music in public; therefore, characters of a serious status sang only if portrayed among close acquaintances (Rogers, 2008, p. 2). This is reflected in the adaptation as well, as neither Prospero nor Miranda sing. Rogers also notes that no music sheets are left behind after *The Tempest*, which provides a fertile ground for recreation to the filmmakers. Not having the original music sheets requires more work. However, it gives more freedom to the filmmakers. In Holly Roger's view, a play's updated music may show “rupture with the dialogue,” however, considering that music has significance to its contemporary audience, “the use of

contemporary music, which resonates with a modern audience, may better ensure a spectator-fiction connection” (2008, p. 3). In Rogers' view, music in the Shakespearean play is prominent, and it is important to construct. There are musical cues in the play that cannot be avoided in any rendition and, in her reading, when directors deal with these cues, they interpret the text to some degree; therefore, changing the music/any new version of the music of a film is a performative action that changes the interpretation of the play (2008, p. 3). Therefore, any time the director makes a decision regarding the music that is not as clearly given as the text, they offer some interpretation of the text.

Rogers further explains that in film, music usually should not seize the audience's attention, and it should appeal to the unconscious level (Rogers, 2008, p. 7). As opposed to this, in *Prospero's Books*, music is supposed to be heard because it does not blend in. Similar to visual elements, aural elements also draw attention to their constructed nature. Rogers even goes as far as stating that the film does not aspire to realism; being distinctively heard, the music creates a rupture in how the film is perceived. Thus, the audience's attention is continuously demanded both on an aural level by “clamorous sounds” and on a visual level by “superimposition of frame upon frame” (Rogers, 2008, p. 21). The presentation of aural elements, the instruments, are fit “one on top of the other” and generate palimpsest of sounds (Rogers, 2008, p. 22). This palimpsest-like construction, however, can be disturbing because of it being distinctively heard.

Construction and design are present even on the aural level. In her analysis of the music in *Prospero's Books*, Rogers notes that the director allowed the composer to create an “aural-visual dialogue” in which sound and image complete each other to create one unified meaning (2008, p. 4). As opposed to most films, in the case of *Prospero's Books*, the music was composed beforehand. Therefore it is almost as if the music controlled the image and not vice versa. Thus, Roger argues that Greenaway questions theatrical and cinematic conventions (2008, p. 5).

However, the film does not doubt the usefulness of cinematic conventions; rather, it uses them to reflect upon the self-reflectivity of the cinematic text and the adaptation in particular. Cinematic conventions are being revised, especially when shot and reverse-shot emerge in one single frame, the reverse-shot appears on a screen within a screen, so the whole screen emphasizes the artificiality presiding to the movie (Avelar, 2006, p. 6).

Rogers sees *Prospero's Books* firstly as a film about text about music, secondly, as a film about cinematic conventions and an investigation of what happens when these are exposed (Rogers, 2008, p. 23).

Prospero's Books is more than an adaptation of literature and music. Todd Barnes considers it a study

on transmedial relations between text, image, and performative technologies (Barnes, 2019, p. 173). Barnes further argues that the film investigates the complex relationship of text and image (2019, p. 178). He highlights what cinema can do as opposed to the theater. Cinema and the filmic close-up “can show us the actor in a way the stage, with all its distance and ephemerality, could never show us” (Barnes, 2019, p. 189). He argues that as opposed to theater which gives the “flesh-and-blood” actor, film, and in particular, the close-up take the viewer out of space and time (2019, p. 189). Thus, film creates timeless figures. Referring to Deleuze, Barnes stresses the double role of close-up: reveal an expression by creating the feeling that triggers that expression (2019, p. 191). Due to the superimposition of images, the transmedial relations present, the presentation of the aural elements, the film is a “chaotic digital milieu” (Barnes, 2019, p. 195).

Underlining the intricacies of the film and reflecting on the faciality of the text—which Todd Barnes locates in Greenaway’s use of writing in the film—he argues that writing becomes a “character with a face” (2019, p. 194). Due to the frequent scribbling visible on the screen *Prospero’s Books* “celebrates the text as text” (Greenaway qtd. in Rogers, 2008, p. 12). The images of the film grow directly from the pages of his books in addition to the multitude of virtual and textual asides given on a wide range of topics; therefore, Prospero is writing his own story (Barnes, 2019, p. 12).

The film keeps Shakespeare’s text intact even though Prospero utters almost the entire play. The actor’s voice was electronically manipulated to get the resonance needed (Rogers, 2008, p. 13). In Rogers’s view, this was the validity of the word created by Prospero; he is in total control of the text. It is only in the last scene that the other characters regain their voice. Barnes believes that Greenaway’s Prospero is the author who speaks for all (2019, p. 182). Prospero is both author and authored in Barnes’s reading.

Prospero’s Books shows how films are put together. What is to be noted is the visual excess the film displays. In the scenes of reading and writing, the process itself is presented both in medium shots, Prospero is shown at his desk, and in extreme close-up, when the words themselves appear on the screen; therefore, in Tweedie’s reading, text and image lose their separate identities and merge onto one hybridized screen (2000, p. 113).

The number of books is a reference to cinema’s twenty-four frames per second, and every book is the source of endless ramifications (Tweedie, 2000, p. 115). Hence—invoking W. J. T. Mitchell—*Prospero’s Books* “becomes the cinematic equivalent [...] of the belief that crossing over—between genres, media, and modes of reading—is the foundational

trope of language and the arts” (Tweedie, 2000, p. 115). Adaptations are artifacts that cross borders, and they are creations that exhibit design, the work of the mind.

Since reflexivity, the play of framings and interpretations, denial of the idea of absolute truth, and the emphasis on textuality appear in the adaptation, *Prospero’s Books* displays many postmodern features (Missingham, 1992, p. 6). Reflexivity influences how Prospero is interpreted: He may be viewed as tyrannical and vengeful or displaying indulgent, compassionate behavior, and our interpretation depends on what we see – whether we see his memoirs or his own magical creation (Missingham, 1992, p. 6).

This particular adaptation takes delight in the means of its production, and it proclaims culturalist values (Missingham, 1992, p. 15). Missingham quotes Rosalind Krauss “An artwork is a nexus in a system of relationships between mutually-defining terms, and we are ‘produced’ in discourse” (1992, p. 12). Similar to Kristeva’s notion of intertextuality (1966), this idea stipulates that a work of art, literary or visual, does not stand on its own in a vacuum but is related to many other works of art.

Missingham argues that everything is a palimpsest – i.e., the new one embedded in the old one (1992, p. 18). Thus, every created text is preceded by an older one that has not been totally erased. Having this in mind when reading adaptations is important for two reasons; the first, we need to be archeologists to see all and be able to interpret all; 2) it stresses the temporal dimension of what is before us (Missingham, 1992, p. 18), i.e., the adaptation is only one layer of text among the many others.

This visually and orally complex approach takes its toll because the adaptation is confusing; it obscures the play, reduces other parts, eschews outdoor scenes, and disturbs the balance between characters (Missingham, 1992, pp. 16–17). The view formulated in terms of fidelity is related to the idea of palimpsest.

In Rogers’s view, *Prospero’s Books* is both a faithful adaptation and a radical departure from the play (2008, p. 9). He notes the twist that Greenaway added to the adaptation: as opposed to the play in which Prospero drowns his books, in the film his magic is continued as Caliban rescues two of these. Caliban’s deed can be read as a postmodernist trait of the adaptation since it stands as a proof to Lyotard’s description of the Post-modern, a disbelief in grand narratives. The story does not end because not all books were drowned.

2 A SELF-REFLEXIVE POINT OF VIEW

In his film adaptation of *Hamlet*, Tom Stoppard changes the protagonist, and instead of Hamlet, the central characters become Rosencrantz and

Guildenstern. The importance of Hamlet's story diminishes to that of a secondary plot. His replacements, the silly-looking pair of friends, are always disoriented and ponder some great question, like how a tossed coin always shows heads when it drops. The side-characters-turned-into-main-characters seem to be spectators to their own story because they are shown how they watch Hamlet.

Since they are no longer outsiders or minor participants to the story—but they are also shown when they are not on the stage in the original story—“[...] they become a hybrid form of spectator, performer and character” (Quassdorf, 2001). They also metamorphose into likable characters viewers can relate to and wish they did not die in the end. They start as comic figures who can be disdained because they toss the coins, they have to see whether all coins show heads upon falling, and who can only vaguely recall why they are on the road and whence they go. On the boat, their conversation shows depth, as silly as they seem:

G: Why don't you say something original? You don't take me up on anything! You just repeat everything I say in a different order!

R: I can't think of anything original! (Stoppard, 2005, min. 1:39:37-43)

They even show scruples upon learning that they are taking Hamlet to be killed. Furthermore, they unintentionally answer Hamlet's question regarding existence by paraphrasing Socrates who “philosophically put it, since we don't know what death is, it is illogical to fear it” (Stoppard, 2005, p. 1:43:36). Realizing their predicament, being able to assess it, and making sound judgment of their deed render them positive characters viewers can relate to. However, although Rosencrantz and Guildenstern become likable by the end, they must die as the original story dictates. Thus, this adaptation uses *Hamlet* the adapted text, as a mold that it should fit into.

Design, creation through mind is reflected by the small details as well. The scene in which Rosencrantz makes a hamburger by playing with his food is believed to show postmodern feature because, in the Stoppard-play, the two did not eat (Wolwacz, n. d., p. 5). The scene also alludes to the artificiality of action because Rosencrantz cannot eventually eat what he prepared—he makes a double hamburger and does not know how to handle it.

Most of their conversations also reflect artificiality. They often engage in fruitless role-play to have a better understanding of events or people. The absurd conversations leading nowhere show when Rosencrantz often repeats what Guildenstern says or misunderstands him.

The film takes a look at itself and views itself as an artifact. It does not change the storyline of the

text it adapts; it merely tells the story from the point of view of two side characters—thus, viewers see what these characters do when they are off the stage of *Hamlet*. This change of the viewpoint of the narration draws attention to the adaptation as an artifact. In addition to that, the film manages to “demonstrate a whole range of perspectives of the medium theatre” (Quassdorf, 2001, n.d.). Thus, the viewer is constantly reminded that they are watching an artifact, an adaptation of a well-known play. The development and the dénouement of the story are known, therefore, the attention can be directed towards the artificiality of the creation. Thus, the theater company that the two meet on their way to Elsinor gains ground, and on several occasions, they summarize the story in play-within-film scenes.

3 ADAPTING THE STORY: *A THOUSAND ACRES*

Jocelyn Moorhouse's *A Thousand Acres* adapts Jane Smiley's novel with the same title to film. The novel is an adaptation of Shakespeare's *King Lear*. Although not a direct adaptation of a Shakespearean play as the other two films are—this is an adaptation of a reworking of a play—*A Thousand Acres* was included in the study because not only the point of view changes compared to the play but the setting as well.

Changes in the setting and the point of view of narration lead to “a contest between two narratives, where the newer attempts to wrestle free of its palimpsestuous relationship with the older” (Marquardt, 2017, p. 12). The film is set in rural Iowa around the 1970s. The characters have different names, but most of them are present. The focus shifts from Larry, i.e., King Lear, to the two elder daughters, Ginny and Rose, namely Goneril and Regan, of which the first is also the narrator of the story.

One radical element in the story is added, i.e., the incest Ginny and Rose are subjected to, which changes the perspective father, and the daughters are seen from. Due to the incest, the source text becomes “associated with a much wider patriarchal tradition” (Marquardt, 2017, p. 12). In the film, Larry also gives away his land to his two elder daughters, but the incest emphasizes his guilt.

Intensifying Larry's guilt and depicting the elder daughters as victims rather than wrong-doers, Smiley challenges the traditional reading of the play. The film follows suit. It also uses the available cinematic rhetoric as Larry is always filmed to appear authoritative and threatening (Marquardt, 2017, p. 15).

Marquardt claims that the actual violence is attenuated in the film while the moral divide is more

or less clearer than in the novel (2017, p. 16). In this respect, Marquardt believes that rewriting builds distances and “concentrating the diegesis on a few salient aspects, displacing emphasis, and, ultimately, shifting the moral fulcrum of the work” (2017, p. 16). She adds that such displacing of emphasis does not result in an adaptation that adds something new but that it opens new layers of meaning. Due to its design—the basic plot almost identical with that of the play—this adaptation embeds the source text while it simultaneously distances itself from the text.

4 CONCLUSION

Adaptations can be considered creations through mind and emotion because creating them involves design, the decision of all participants in the film-making process referring to how to send their message through cinematic rhetoric. For this reason—even if they are based on previously written sources—they are not in any hierarchical position with the “source.”

Inevitably, they trigger allusions to the source - the better the source is known, the greater the degree of comparison between the written text and the iconic one. They may trigger two sets of layers of meaning, that of the source and that of the new artifact, i.e., that of the changes they make. These layers can exist separately, as the adaptations make sense on their own as well; prior knowledge of the source is not needed for them to make sense. If they are both summoned together, they create a further layer of meaning in which the written text interweaves the iconic text. Discussions of the new artifact will involve, on the one hand, terms from the written text, e.g., comparison of Caliban in the Shakespearean play and the one on the film. On the other hand, they will trigger terms related to the new artifact, e.g., images being superimposed in Greenaway’s film.

However, the language employed suggests that these films are complex designs, creations, and not mere copies. Hence, *Prospero’s Books* is a piece that discusses authorship, in which the main character is the author of his own piece. The self-reflexivity, highlighted even by the motif of mirrors in the film, makes the film a Postmodernist creation. Likewise, *Rosencrantz and Guildenstern Are Dead* becomes a comedy of the absurd, in which the two side characters turned into main characters become likable; however, they end as tragic heroes. *A Thousand Acres* turns out as a women’s story of survival amidst emotional turmoil. The horizons of expectations of the source stories only offer a rich layer that will enrich the interpretation of the new creations.

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Emotion and rationality in the creation of the ideal courtier

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ABSTRACT: By starting our study with the *Lembranças* (memoirs) of D. Francisco de Portugal, Conde do Vimioso (c. 1545) as our main source and crossing-referencing it with other sixteen-century documents, we want to assess the meaning of the Court and the courtier in the 16th century. We are in the presence of a very revealing document on royal liberality in an ambiance where the sovereign is the unifying and uniting element but also a critic of the backstage constraints, namely of a game of promises not always fulfilled and of the existence of interest groups.

It is a document with autobiographical data on a figure who was paramount in war, in diplomacy, and in arts, as well as in his senior functions as counselor and *Vedor da Fazenda* with a description of favors, posts at the palace and property, received or not, assessed in comparison with the favors distributed to others serving at the Court, both members and non-members of the nobility.

In this chapter, the truth of which has been verified, the environment in which a courtier lived is explained: the construction that the Court represents of a hierarchic and social-legal order established on Christian moral and political principles, therefore rationalized, to which the subjects of the sovereign submit themselves; the structure that the Court also embodies as a seat of prestige awakening opposing feelings of ambition and humility and causing affection and disaffection.

Keywords: Court, Courtier, Liberality, Merit, Grievance

1 LEMBRANÇAS OF THE PORTUGUESE COURT IN THE 16TH CENTURY

The historical source that will serve as main document for analysis for this essay is a sixteen-century manuscript consisting of eight sheets of *Lembranças* (Memoirs) of the Conde do Vimioso, D. Francisco de Portugal, extant in the *Fundo geral* (General Fund) of the Portuguese National Library (Biblioteca Nacional de Portugal) in a version in two parts, newly transcribed¹ and published by Maria Leonor García da Cruz (2001, p. 248-263) and dated circa 1545.

We address the creative versatility of the nobleman, courtier, Grand Officer of the *Fazenda Real* (public finances), to reveal his character, the answer that he puts forward concerning a series of public and personal questions in his relations with the sovereign, also from the point of view of his anxiety for a generous reward for his actions carried out on behalf of the king. He complains, and he awaits compensation from the sovereign, at the time

D. João III, given his merits and works, many promised but not yet recognized.

As he evokes his personal actions, he reveals in excerpts of his autobiography and notes, discretely or expressly, the favors owed to him compared with other king's subjects, the bounties that the others gained from the sovereign without having provided services as remarkable as his.

As he points out, it is a "Recollection of my own life," having reached a respectable age (he was 70 years old by then, as one deduces from Tocco, 1999) and a considerable number of years at the king's service (50, as he, himself, states). No, it is not the joy but the sadness that impels him to write to him, bearing in mind the favors owed to himself and, therefore, to his children.

Naturally, the issue is that of a nobleman claiming favors and privileges from his king, according to the rationalized socio-legal order that establishes absolute sovereignty. They are a natural reward for missions completed in the royal service, in this case, by himself.

When discussing service to the king, one supposes total attachment, i.e., that every subject (vassals and *naturais*) fulfills their submission to regal sovereignty. This guarantees the unity of the kingdom and the lands, submission to fundamental laws in the kingdom,

1. The transcription by Cruz (2001) was based on the aforementioned manuscript and presents differences from the transcription by Tocco (1999). The corrections made to quantities mentioned in the document are fundamental.

and the protection of general welfare (Vicens Vives, 1984). The voluntary submission to moral rules and form of control that would complement the general regime and the sovereign's universal power as a "public person."

Even though the Court was still itinerant, sometimes voluntarily, other times by force of circumstances (Buescu, 2005), having different seats which focused on supreme justice and the control of the assets of the Crown, the Court was a center of rational organization of men and resources (in crescendo towards the end of the Middle Ages, Gomes, 2003), vis-à-vis the king, as well as, simultaneously, a focus of prestige and therefore of submission to etiquette and rituals (Elias, 1987). According to many writers, it is structured around rationality and evokes feelings, albeit not always the best ones. To this regard, let us recall the example of Gil Vicente (1942-44) with his work well-known from 1502 to 1536, António Ferreira (1940) or Sá de Miranda (1937), critical of the feelings of personal ambition and of covetousness which resulted in people from all walks of life getting close to the Royal court (Cruz, 1990; Cruz, 1999, pp. 15-16), possibly developing forms of corruption (Cruz, 2018), hopefully, punished by the sovereign sooner or later (Cruz, 2019).

Feelings of social ascent, an increase in honors and revenues, are again related to the sovereign and his liberality. Yet, *note* that this is conditioned by practical provisions set out in fundamental documents of the realm. Thus not only affections and disaffections developed by the king (falling into favor - *validos* or out of favor), albeit in the general opinion of Portuguese theorists and in contrast to the reflexions of such an author as Machiavelli (1976; 2010), the sovereign ought to be more loved than feared. According to many testimonies of the time, his power is a protective and paternal one (Albuquerque, 1974; Albuquerque, 2012; Macedo, 1971).

As one sees in the regime of absolute monarchy, service to one's king, sovereign, and public person (guaranteeing the well-being of all subjects and the integrity of the realm) must be rewarded to assure the love and loyalty from vassals to their sovereign. This, in the prevalent political theory, represents the execution of divine order on earth (he is God's lieutenant), and his laws are inspired by divine order and natural law.

The rules of the kingdom (*Ordenações*) and general laws empower the king to be the supreme guarantee of public welfare (*Ordenações*, 1984; Lião, 1987). His practical limits of action come from these circumstances, thus not affecting the absolute nature of his power, since even if he had to guarantee a dialogue with his subjects and political ethics derived from Cristian morals, the sovereign does not share his power with any other structure (Macedo, 1971).

Therefore, D. Francisco de Portugal was reminding the king of the obligations he thought were due to him by the sovereign. We are before an aristocratic mindset. Subtly (and with great skill), in some passages, there are references to the great advantage of noblemen over other subjects with a different socio-legal status, albeit receiving more rewards from the king than they deserved.

As he points out, he does not intend to overrate his *merecimento* (value) because this, his honor and truth, which underlie it, come from birth.

He subtly suggests that witnesses would be available if necessary (true men) to praise his conduct, even though he had not glorified himself in an immortal way in the Arts and Letters. It is interesting to see how he refers to a Renaissance topic that fuelled dialogues and other writings of the time. Let us recall his contemporaries, such as Sá de Miranda (1937), Diogo Bernardes (1946) or Andrade Caminha (1791) (Cruz, 1999, pp.16-17), who praised noblemen so highly that they linked culture to skill at war, making them better subjects of the king. Despite his words, D. Francisco de Portugal left his mark on Portuguese Renaissance culture.

Appearing to show humility in this context, it is well-known that he, in fact, took up arms and diplomacy in Morocco. His actions in Mazagão in 1502, in Arzila in 1509/1510, and Azamor in 1513/1514 should be noted, as well as his participation in important historical circumstances around the 40s according to various documents, some of them reflected in Rodrigues, 1915-1919. In the field of Letters he left his legacy in *Cancioneiro Geral* by Garcia de Resende (Dias, 1990-1993) and in his *Sentenças* (Tocco, 1999; Macedo, 1987).

So, in Portugal, the ideal courtier was also a matter for thought, and who, according to Baldassare Castiglione, in *O Livro do Cortesão* (Castiglione, 2008) would combine a gracious manner in both speech and behavior with current practices required by the circumstances (military and diplomatic services but also musical and literary amusement). Besides being a political center under the single command of the king, as collar of laws and social hierarchy, the Court was equally a focus of cultural promotion (Burke, 1991; 1997), and its server strove every day to obtain a place at the top.

2 BIOGRAPHICAL NOTES AND VERACITY OF THE DISCOURSE

D. Francisco de Portugal, 1st Conde do Vimioso, legitimised son in 1505 of D. Afonso de Portugal, future Bispo de Évora (1485), grandson of the Marquês de Valença and great-grandson of the 1st Duque de Bragança, went down in History as

a constant counsellor of the sovereign, of D. Manuel and of D. João III, and a senior officer in public finances (from 1515). He was involved in many overseas issues, particularly the Portuguese presence in Morocco and the maintenance of the defense fleets along the coast and the Strait. He died in 1549.

Noble courtier par excellence, provider of many services to the sovereign, both with his own life and with his wealth, it is not astonishing that after fifty years, he took stock of acts of privilege and inconsideration, tracing comparisons with other personalities in the sovereign's retinue, noble or not, who were also recipients of favors, as many or even more than him.

When he wrote these *Lembranças* of his life, D. Francisco de Portugal had been in continuous service at the Court for 50 years, only withdrawing for two years from the time of his marriage, as he points out. His children, all born at Court, were by then, respectively 28 years old (D. Afonso, the future 2nd Conde do Vimioso), 27 years old (D. João, future Bishop of Guarda), and 23 years old (D. Manuel). He also points out his services and the singular preparation of D. João in the Letters from the age of six and learning Latin, Greek, and Theology in the Cathedral. No wonder he praised him to a king that scholars of the time called a patron of the Arts.

King D. Manuel arranged his marriage (a second marriage followed after he became a widower, this time with no male descendants) and gave him the title of *conde* in 1515. One year later, the king made him *Vedor da Fazenda*, joining the Barão do Alvito and D. Pedro de Castro, the other two *vedores*.

He also received from the sovereign the favor of becoming the Alcaide-mor de Tomar (1516), the king hoping that with this gesture, he would serve him with 8000 men from that town and district.²

With a guaranteed progeny of young men in the service of the sovereign or available to be, one of them serving his father in the position of *Vedor da Fazenda* (he did not hold the position but only its *serventia* – functionality - due to the Conde's inability), and another particularly endowed from a cultural viewpoint, suited to an office amongst the great prelates, it was obvious that D. Francisco was concerned about assuring good profit and privilege that, in his case, would confirm his noble lineage.

He received several *tenças* (pensions) from the king, one of which might be passed on to his daughter (D. Guiomar de Portugal e Vilhena) when she got married.

According to the Conde do Vimioso, D. João III did not cherish him in the same way as before, a fact that was confirmed years later by his son D. Afonso in 1573 (*Apontamento*, 1946-1954) when mentioning the last years of his life.

His *Lembranças* is a kind of inventory of the services that were to be charged to the king and to that matter, he goes into great detail, with great rationale, as to the income received and not received and posts to which he was or was not appointed, depending on the circumstances.

Nevertheless, he stresses in various passages his love and loyalty towards his sovereign, not feeling aggravated (offended and vexed) despite it all. Apparently contradictory details arise: a feeling of displeasure for not having received the deserved consideration but, at the same time, his declaration of loyalty to the king.

This dual aspect drives us once more to the Court's dual face and its relation with the sovereign (the hierarchal and social-legal organization and the focus on affections).

His words show, because of the injustices he bore, a lack of understanding for the final royal decisions given several conceivable actions, or, more often, the attribution to interest groups headed by other noblemen who were senior Court officials, of intrigues that would have been to his disadvantage. An enemy he had at a very early stage was the Barão do Alvito.

This is a very personal, even intimate, we dare say, testimony addressed to the king.

Does he tell the truth? At least he posits a truth, his perception of the circumstances, and, therefore, almost always dated and detailed.

Is there a selectivity of the problems? Undoubtedly. He obviously wants to drive away what is revealed to be indecorous regarding his birth. Although he praised the great friendship that D. Manuel had for him, he did not mention his legitimization. On the contrary. He understands that honor and truth come from his natural noble condition, and so it is not of his merits that he wants to talk. There is no doubt about this.

In the same way, albeit with great actions carried out in war and his Letters, he proves to be humble.

He invented other problems, more practical ones, related to his service and his promises and rewards that he considers being due him from the previous reign or already created during the reign of D. João III, but not fulfilled. He complains. Through his discourse, we wonder what reasons there were to explain such behavior? Possible solutions were in the meantime abandoned, the royal aims were modified ..., or the views of D. Francisco de Portugal did not match those of others.

Incidentally, let us recall the different way he assessed social mobility and the value of men of another status, vis-à-vis the Conde da Castanheira,

2. In an opinion issued to the king in 1534, in a difficult military, political and financial situation, Francisco Pereira mentions to D. João III human and material resources that he could easily pursue his political intent in Morocco (conquest of Fez). When specifying the availability of members of the titled Portuguese nobility, with ecclesiastical assets, he mentions the Conde do Vimioso with 50 *lanças* (*Repartição*, 1998).

with whom he had had some personal disagreements according to the secretary Pero de Alcáçova Carneiro (*Relações*, 1937). The Conde do Vimioso critically mentions how certain men of Letters (jurists) obtained advantages from the king for themselves and their protégés.

As for telling the truth, one has to ponder his words on granting titles, donations, and privileges to various contemporaries from different walks of life, given his long work as *Vedor da Fazenda*. These senior officials of public finances, who were also counselors, played a very important role in the background of the granting of the Royal grace (the sovereign's liberality). They had to present him with an inventory of received assets and favors by the candidate to avoid excessive favor or, on the other hand, losses to someone, which could generate rivalry and tensions.

This role, which underlying royal politics, provided a deep knowledge for the king's subjects, both noble and non-noble, allowed D. Francisco de Portugal to critically rationalize the royal concessions by listing them in the document he attached to his *Lembranças*, which is the second part of this important testimony, which we shall now analyze. By taking stock and comparing favors and disfavor done to him, noble titles and land, palace functions, *commendaes*, and several incomes still remain.

3 SERVICES, AMBITIONS, AND RESISTANCES

Did king D. Manuel want him to become in 1518 the only *Vedor da Fazenda*, thus giving satisfaction to the other two Superintendents? They resisted nevertheless as they considered that would be dishonorable, and so the project was not implemented.

The "good conscience" required of those who take on the position of *Vedor da Fazenda* (*Regimento*, 1516) naturally went counter to the rumors (*murmuração*) that many discourses of the time assigned to the atmosphere of the Court. In the same way, the sovereign heard public opinion, characterizing it not as the voice of the people (or any possibility of sedition), but as the voice of knowledgeable individuals (Landi, 2006), among whom, once again, were the *Vedores da Fazenda*.

Pressured by some and by the king's early death in 1521, D. Francisco did not accept the position of *Camareiro-mor*.

What he most valued, it should be noted, was for D. Manuel to have indicated his name in his will as one of the most highly recommended individuals to accompany the new sovereign, D. João III, in his government (*Testamento and Codicilo*, 1946-1954). However, his emotions came to the fore when he stated that the new sovereign did not have the same esteem for him.

D. João III did, in fact, allocate to him the most desirable tenças (100,000rs for India), but also to other superintendents, namely to Barão do Alvito and to Conde da Castanheira when he granted him the position.

D. Francisco de Portugal's discourse seemed to have excelled until his *Lembranças*, however, due to his having hidden the humiliations suffered. Then around 1545, he finally opened up to the king about the concerns and moral resistances to decisions taken.

As to the value given by D. Manuel to the Conde do Vimioso, there is documentary evidence that if not totally proving, at least indicates that as *Vedor da Fazenda* in the early 1520s, he was kept in high esteem. On a distribution sheet of missions by the then three superintendents – Conde do Vimioso, Barão do Alvito, and D. Pedro de Castro – an important responsibility and concentration of powers were in the hands of D. Francisco de Portugal.

Under his responsibility were registrations known as *assentamentos* (control of the registration of expenditure and revenues to be made every year) and the annual leases – an essential document for controlling annual revenues and their application. There was, therefore, sufficient in-depth information on the redistribution of royal income in provisions and salaries, entitlements, and favors.

This part of the mission of the *Vedores da Fazenda* whose yearly turnover is confirmed by their signatures in short form (approval, visto) on documents which have survived till today (Cruz, 2001, p. 153-160), the *Cadernos de Assentamento* were of the responsibility of the Conde do Vimioso in the years 1517, 1520, 1522, 1526 and 1529. From 1533, however, the responsibility went to D. Rodrigo Lobo (Vedor replacing his father given his father's death in 1525 and Barão do Alvito from 1541). This was the situation in 1542.

In addition to receiving bills and messages from the fortified cities of North Africa, providing, among other necessary things, payments in money and wheat, the Conde do Vimioso had another very important mission. He was responsible for preparing the India armadas of 1521, i.e., he had to assess how many vessels had to be provided, handled their supplies and equipment, and the transport of merchandise. Therefore, he had to conduct surveys and make contacts to handle the task of the provisions.

Directly related to the supply of the fortified cities of the Maghreb and the preparation of the India armadas, he also had to ensure the transport of wheat and biscuits, also necessary for supplying the trading ships of Guinea and Mina.

Here it can be ascertained how much these problems all under the responsibility of the Conde do Vimioso were related to contracts and leases and the maintenance and adaptation of the complete network of the channels for the movement of goods, requiring

continuous supervision of the different agents involved in the process and total (as far as was possible) control of information coming from and going into the Kingdom.

In that same document of 1520, the sovereign D. Manuel reserved to the Barão do Alvíto the orders of the *Mesa da Fazenda* (Public Finance Court) and matters regarding the Grand Master of the Order of Christ, the Islands, Mina, and Guinea to ensure they followed the necessary orders and measures regarding supplies. Provisions of the Warehouses were under his responsibility, including controlling the ammunition inventory, gunpowder, and saltpeter, requiring detailed records in their own books of all the inventory, amounts spent, and for what purpose.

D. Pedro de Castro (Conde de Monsanto from 1528, died in 1529), in turn, was given the duties of auditing all the accounts regarding the income of the Kingdom and trading posts, India, Guinea, Islands and Fortified cities in North Africa and also of handling extraordinary accounts. Following that mission, he was responsible for executing all and any debts against the Royal Treasury.

We know (Cruz, 2001) that two *vedores* worked together on certain matters whenever there was a real need and in accordance with the provisions set out in the *Ordenações da Fazenda (Regimento, 1516, with a new edition in 1548)*, it was considered preferable to have three superintendents present to issue the final judgments in the *Mesa da Fazenda* (the result of the collaboration of judges in the court proceedings concerning the *Fazenda Real*).

However, even though D. Manuel encouraged them to work together, this did not mean that there was not an occasional need for each *Vedor da Fazenda* to inform the sovereign about matters concerning their specific sector of service.

Was the sovereign preparing, despite resistance from Castro and the Barão, a new organic body in Public Finances, reserving a special position for the Conde do Vimioso, even though he was very new in that position? D. Pedro de Castro was not yet titled and only became titled at the time of D. João III, and the Barão had his hands full with the work from his ancestors, scholars, his father having been the *Rege-dor da Justiça, Chanceler-mor, Escrivão da Puridade* and *Vedor da Fazenda* of King D. Afonso V (Cruz, 2001). D. Francisco de Portugal, in turn, descended from the Duque de Bragança...

D. João III, in his more personalized government (without the influence of King D. Manuel's will), appears to have separated the services more. Furthermore, he had new assistants. In addition to the Conde do Vimioso, Castro and the Barão, among the senior officials of the *Fazenda* were Nuno da Cunha (1521-1528), D. João de Meneses e Vasconcelos (1527-c.1543) and especially D. António de Ataíde (*Vedor da Fazenda* from 1530 and *Conde da Castanheira* from 1532). Furthermore, as we have seen above, his royal

orientation tended to focus (c. 1533-1534) on major sectors of responsibility, each one pertaining to senior officials.

If we consider the rumors and anecdotes of the time, we should not ignore the influence of the Conde da Castanheira on this sharp separation of businesses (Saraiva, 359). There is also a reference in the same source to the Conde do Vimioso's preference for business in Morocco. In fact, when after many years of service, the Conde do Vimioso requested the sector of *Vedor da Fazenda* for North Africa, the Conde de Castanheira requested that position but covering India (Saraiva, 278).

From the *Relações* (Reports) of the secretary Pero de Alcáçova Carneiro, we know for sure, given that he was present with them in many royal sessions, there were several disagreements between the two of them, albeit there were many opportunities for them to make up later.³

4 INVESTMENT BALANCE IN AN IDEAL OF LIFE

It is through the intervention of the king that the Conde do Vimioso, although of noble, albeit bastard, lineage, rose socially. It was also by way of royal favor that he became one of the most important holders of the position of *Vedor da Fazenda*. At the time, this was an unexpected transaction in the *Ordenações* of the kingdom (contrary to the venality of major positions in Justice and the *Fazenda*) but consented by the sovereign. It naturally involved his interest in fulfilling for D. Martinho de Castelo Branco, Conde de Vila Nova de Portimão, then *Vedor da Fazenda*, an important position in the palace, that of *Mordomo-mor* (Cruz, 2001, 158-159). More exchanges of goods were involved before just equity was arrived at.

Was D. Francisco de Portugal one of D. Manuel's favorites (*valido*)? There are many indications that that was so, and perhaps this was the reason for his sadness at not having achieved more due to the early death of the sovereign. Nevertheless, he continued to hold the important post of *Vedor da Fazenda* and as the young D. João III counselor who would allow his first-born son to take up such post when he was unable due to age and sickness.

There is a long list of indications on the services provided at Court and expenses incurred on behalf of the king. What was the true objective? The public good or receipt of privileges?

3. The daughter of the Conde do Vimioso married the 2nd Conde da Vidigueira, and their eldest daughter and son married the children of D. António de Ataíde. It was a grandson of D. Francisco de Portugal who brought to light, in 1605, the *Sentenças* encouraged by his brother-in-law, the 2nd Conde da Castanheira.

Ideologically serving the king would contribute towards the public good of which the sovereign would be the guarantee. But in exchange, there was the promise of rewards, redistribution of assets, and incomes by the king. This happened in the relationship between the sovereign and any subject, regardless of their being noble or not. But more prestige was given to an act carried out by a member of the nobility, be this a political, diplomatic, or military service. In the case of the Conde do Vimioso, there were graces or favors promised but never satisfied by one king or by another...

In his *Lembranças* regarding D. João III, he takes stock of 50 years of continuous service at Court (except two, at the time of his marriage), considering he had done an impeccable job free of any stain (punishment or reprehension) pointed out by either sovereign D. Manuel or D. João III.

It was a life of loyalty and expenses incurred (perhaps an investment?) on behalf of royalty. D. Francisco calculated expenditure made on their behalf in services related to the life of the Court and the service of kings. He spent 200 thousand cruzados, on the Court, on parties, on war, on receptions, not counting the expenditure made from the sums received by *mercê*.

In this particular aspect, he is considered to be among all the inhabitants of the kingdom who spent more. With this, did he want more royal recognition and favors? Of course, he did. Suffice it to exemplify with the *tenças* the transmission he wished for and had guaranteed but which are never verified, with posts at Court, such as *Camareiro-mor*, which he negotiated on behalf of the king for another, or become the only *Vedor da Fazenda* which never happened.

From D. Francisco de Portugal's discourse, we witness the environment of the Court, and we understand that not everything depended on the personal will of the king. This was related to and conditioned by many commitments and by statutes gained by or inherited by subjects.

For the king to privilege anyone, offer him a post or revenue enjoyed even by others, it is necessary to give those others a "satisfaction," i.e., to compensate them with other favors and income. But, in that business, there had to be equity or an even greater reward. Otherwise, losing this or that entitlement, post, or *commenda* (commendation) could have been considered a dishonor. This could have led to undesirable tension and could have shaken the socio-political equilibrium depending on unity and discipline around the sovereign.

Therefore, the Conde do Vimioso is one of the great figures of the Portuguese Renaissance that corresponds to the ideal of a courtier, his image surpassing that of a common courtier. See his warfare skills and letters and the exemplary service in events in and outside Court and in his political and financial functions.

If he complained, he never showed it much, except at the end of his life, appealing to the king's conscience and by virtue of his descent. It was a way of concealing the grievances suffered which also helped define him. The noble courtier speaks even louder, showing a pronounced aristocratic mentality.

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Fernando Pessoa's creative process as a "Theater of the Mind"

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ABSTRACT: Over time, the pair of concepts Emotion and Mind, seeing the latter as the seat of Reason, occupies a top place in the discussion regarding the creative artistic process, in parallel with others, such as art/ life, truth/fiction. This paper analyzes how Fernando Pessoa wrote and theorized widely on the subject, established and practiced different poetics. His poetics and theories may be synthesized in the pair "feeling/ thinking," which the poem "Autopsychography" develops, pointing to a concept of art as "pretending." However, in a kaleidoscope work, this pair of concepts is focused and analyzed from different perspectives; it assumes multiple variations, meanings, and degrees, according to the different "authors" created by the poet. As he said, he built a "drama in people, instead of acts," "a novel without a plot," or as Teresa Rita Lopes summarizes, a "novel-drama-in-people." Pessoa created the characters and became the scene where these variations confront and interact, where his authors, theorists, and critics act, all "a non-existent coterie" created by a single author. Indeed, he became "nobody," and as Bernardo Soares, he confesses, "I'm the naked stage where various actors act out various plays." That is, Fernando Pessoa's work is *The Theater of the Mind*.

Keywords: Fernando Pessoa, Emotion, Reason, Aesthetics of pretending, Multiplicity

1 INTRODUCTION

The pair of concepts Emotion and Mind, seeing the latter as the seat of Reason, occupies a top place in the discussion related to the creative process in the artistic field, in parallel with other pairs, such as art/life, reason/feeling, reason/instinct, truth/fiction, a debate that has lasted for many centuries.

In this field, the relationship established between the two concepts, more or less strained, varies with the authors, but also throughout the History of Art and Literature, usually alternating periods when one of these concepts becomes predominant, as is the case of Reason in Classicism and Emotion in Romanticism, in the 18th and 19th centuries, respectively.

On this subject, António Damásio tells us that in the field of science and philosophy, for centuries, the opposition Emotion/Reason is characterized by significant discrimination of the first, considered of lesser importance to the second, seen as the most excellent human capacity (Damásio, 2000, p. 59).

Interestingly, Damásio says that Romantics put emotion in the body and reason in the brain. 20th-century science left the body out, shifted emotion back to the brain, but relegated it to the lower neural layers (2000, p. 59).

It is, after all, the "creative tension between warring forces — a calm 'Apollonian' spirit and an emotionally chaotic and violent 'Dionysian' one" (Preziosi, 2009, p. 519), inherited from Greek culture and rethought

over time, as is the case of Friedrich Nietzsche in *The Birth of Tragedy* (1872).

However, Nietzsche considers these two principles reconciled in the Greek tragedy: "Apollo could not live without Dionysus!" (1923, p. 41). In short, Nietzsche analyzes these principles functioning in Greek art, both in opposition and in complementarity, or even fusion.

In fact, throughout the History of Arts and Letters, emotion and reason were almost always considered to be in opposition in the creative process. However, today science shows that this is a much broader and more complex issue.

Today, we know that emotions and feelings are linked to consciousness, intelligence, and reasoning, therefore, to Reason.

Furthermore, according to Damásio, emotions are linked to the ideas, values, principles, and complex judgments that only human beings can have (2000, p. 55), and he also notes that consciousness and emotion cannot be separated (p. 35). Damásio explains that most emotions and feelings are essential to give energy to the intellectual and creative process (2017, p. 148) and that it is not possible to talk about thinking, intelligence, and creativity without taking into account feelings (p. 195).

However, emotions in the arts are distinguished from emotions in life, both for creators and recipients. Regarding "emotion" in arts, Dutton tells us that "works of art are emotionally saturated in the

sense that they express and explore affective experience within a coherent range throughout their totality” (2009, pos. 2143).

In this way, emotion must be seen “as coextensive with art, intrinsic to it, appears to be a bedrock fact of human nature and the nature of art,” which explains the fact that it “seems to be readily understood and accepted by audiences for art everywhere” (pos. 2143).

2 FERNANDO PESSOA: FEELING, THINKING, PRETENDING

The starting point of our analysis is Pessoa’s poem, *Autopsicografia* [Autopsychography] (1995, p. 235), published in 1932. In our opinion, this poem constitutes an *Ars Poetica* and a model of literary reading by designing a model of artistic experience at the level of creation and reception. A frontier and a type of interrelationship between art and life are defined in the text, and the poet’s action and that of the reader are characterized.

The poem shows how emotion and reason work in these processes and that this experience is characterized by “pretending” and aesthetic pleasure, both for the creator and the recipient. In this perspective, the author and the reader are located in symmetrical places, affected both by an attitude of “pretending,” “playful pretense,” or “make-believe.”

Thus, life and art are distinguished, and at the same time, the rule of insincerity is instituted in the latter, however, without eliminating the former’s role and the relationship between the two.

Starting from this poem, we will highlight in our analysis the following points: 1) The aesthetics of pretending; 2) The author’s creative process; 3) The reader’s aesthetic process; 4) the case of heteronyms.

2.1 *The aesthetics of pretending*

The assertion made in the first verse of the poem, “O poeta é um fingidor” [The poet is a pretender], establishes a conception of art that summons the relations art/life, truth/lie, sincerity/insincerity, a subject addressed by Pessoa over several years, both in his name and in the name of some heteronyms. In fact, in this poem, Pessoa literarily condenses a series of reflections in other poems and texts about literary creation and reception. Published months later, the poem “Isto” [This] addresses the same theme.

By stating that “The poet is a pretender,” Pessoa institutes fictionality as an inalienable characteristic of literary art, thus assuming it

as a fundamental rhetorical mode, [...] understood as a means to communicate what is invented”, “as something imagined”, like in “The theories of “as if,” pretense and make-believe (Zetterberg, 2016).

The use of the words “pretending,” “fiction,” sincerity, insincerity, “lying,” “mask” proliferates in Pessoa’s texts and his heteronyms. Therefore, it is pertinent to remember the etymology of these words and their original uses and meanings.

According to Glare, “Etymologically, ‘fictionality’ has its roots in the Latin ‘fingere.’” ‘Fingere’ has several meanings: 1) to shape, 2) to invent, and 3) to make a pretense of.” (Apud Zetterberg, 2016).

About the word fiction, which derives from the same etymology, Schaeffer (2013) reminds us that

In Latin, *factio* had at least two different meanings: [...] it referred to the act of modeling something [...]; it designated acts of pretending, supposing, or hypothesizing.

Schaeffer emphasizes that “the second sense of the Latin meaning was used in reference to serious ways of pretending, postulating, or hypothesizing” (2013).

Given the method used by Pessoa in artistic creation and respective purposes, it is pertinent also to remember the use of the term “fiction” in the field of science and philosophy, precisely the case of the “thought experiments,” considering that “Thought experiments are generally counterfactual deductive devices giving rise to valid conclusions which are integrated into the real-world belief system” (Schaeffer, 2013).

It is precisely the case with the creation of Fernando Pessoa’s heteronyms, as we will see later.

Let us remember that for Fernando Pessoa, as he wrote in a letter, “making art” became very early the most terrible mission — a duty to fulfill hard, monastically, without diverting his eyes of the creative end of civilization from all artistic work (1986a, p. 96). In this sense, he considers his duty to work for the progress of civilization and the widening of the consciousness of humanity (p. 97), obviously, through art, because for him, the purpose of art is to increase human self-consciousness (1966a, p. 183).

Thus, for Pessoa, art is a form of knowledge and knowledge production, and this is achieved through pretense because, as the heteronym Álvaro de Campos says, “to pretend is to know ourselves” (2001, p. 234).

The pretense taken to the extreme in creating heteronyms also works in this sense, as the author himself admits.

Thus, in a game symmetrical to that of reading, the creation of heteronyms by Fernando Pessoa shows that, as Carroll argues

Fiction goes deeper than pleasure ‘to regulate our complex psychological organization, and it helps us cultivate our socially adaptive capacity for entering mentally into the experience of others’ (Dutton, 2009, pos. 2123).

In this framework, the universal “love of fiction — a fiction instinct” (pos. 1907), a relative perhaps of

the drive known as "play," a crucial instrument of the cultural mind (Damásio, 2017, p. 164, 255), contributes to self-knowledge, because "Fiction provides us [...] with templates, mental maps for emotional life" (Dutton, 2009, pos. 2154).

In a theoretical text on pretending in art, Fernando Pessoa wrote: "Sincerity is the greatest artistic crime. Insincerity is the second greatest" (1966a, p. 210).¹ With this kind of paradox, the author introduces the idea that "the great artist" must "be absolutely sincere about anything for a certain length of time — that length of time, say, which is necessary for a poem to be conceived and written" (p. 210). Then, he makes it clear that sincerity in life is different from sincerity in art.

Clarifying this idea, Pessoa asserts several times that what he wrote in the name of his heteronyms is sincere. It means that art is not subject to the criterion of truth because the artist should not be concerned with the truth of what he describes. It is lawful for him to write a poem in which all probabilities are violated (1966a, p. 201). As he says in a letter to Francisco Costa, it does not matter that we feel what we express; it is enough that, having thought it, we know how to pretend well to have felt it (1986a, p. 175).

For this reason, the poetic subject of the poem "Isto" refutes the accusation of lying in his writing and claims another way of feeling, the artistic feeling:

Dizem que finjo ou minto / Tudo que escrevo.
Não. /
Eu simplesmente sinto / Com a imaginação. /
Não uso o coração.

Pessoa goes further in this matter, considering that sincerity is the greatest obstacle the artist has to overcome and only a long discipline, learning to feel things only literarily, can lead the spirit to this culmination (1966b, p. 38). In the same sense goes the devaluation of poets who sing the emotions they feel, in favor of those who do the opposite (1980, p. 3). Therefore, he claims that "Not insincerity, but a translated sincerity, is the basis of all art" (1966b, p. 217).

At this point, Pessoa is perfectly in tune with what Eliot was writing at the same time about this subject when he says: "The emotion of art is impersonal" (Eliot, 1919).

So, what Pessoa considers insincere art are the things done to amaze and those that do not contain a fundamental metaphysical idea (1986a, p. 97).

2.2 The author's creative process

When discussing Fernando Pessoa's creative process, we necessarily think about creating heteronyms, but we will address this aspect at a specific point. However, for now, we limit ourselves to an approach about the author, his conception of art, and his *modus operandi*, as Pessoa himself.

In this regard, we have several texts in which the author analyzes himself as a person and artist. In all of them, he highlights the preponderance of his inner world over his attention to the outer world, and concerning the former, he highlights the predominance of reason, thought, and imagination over emotion and feeling. In a 1910 text, Pessoa describes himself, saying, "Mine inner sense predominates in such a way over my five senses that I see things in this life [...] in a way different from other men." (1966a, p. 13).

In a 1919 letter to two French psychiatrists, Pessoa highlights the strength of his intellectual side and laments that his ability to concentrate is limited to reasoning and fails in other aspects of life. In another text, he defines himself as an analytical reasoner (1966a, p. 74). Therefore, it is evident that Pessoa, in life, considers himself more prone to thought than to emotion and feeling.

Several poems address this theme and show the difficulty of the poetic self in maintaining the level of emotion and feeling without slipping into thought. Thus, the thematic dichotomy, or binomial, feeling/thinking arises and runs through his work in his name and the name of others.

The verse "O que em mim sente 'stá pensando" [In me what feels is always thinking] of the well-known poem of the reaper shows very well this fusion of the feeling/thinking in the mind of the poet or the immediate transmutation of the feeling in thinking.

In *The Book of Disquiet*, Bernardo Soares also confesses: "The life of my emotions moved early on to the chambers of thought" (Pessoa, 2015, pos. 1754).

The process is summarized and exemplified in another poem, in which it is said: "E eu, que sinto co a cabeça, / Fiz logo o poema preciso" [And I, who feel with my head, / I made the exact poem right away] (1990a, p. 88).

This characteristic occurs in life and art, but it is important to know how Pessoa sees these two universes. We get enlightened when reading the excerpt that says literature, like all art, is a confession that life is not enough (1966b, p. 286).

This same idea is illustrated in the poem "Isto," where life is placed on a lower level than Literature. Thus, art is at a higher level than life and has, in a way, a compensatory function, as Damásio thinks and Pessoa illustrates. However, they are not totally and necessarily separated; they interact sometimes.

1. Fernando Pessoa wrote many texts originally in English that were published in Portuguese editions. Thus, many of the quotations made in this chapter correspond to the original texts and not to translations.

So, where does art come from?

The origin of artistic creation is often a mystery, and also for Pessoa, who periodically wonders about the authorship of his writings, stating that he did not write it, like when he says: “What I write’s not mine, not mine...” (2006, p. 323).

This mystery remains, but Pessoa knows and states that the artistic work derives from origins more subtle than understanding and reasoning (1966b, p. 95). Actually, he adheres to the idea that “Poeta Nascitur, Non Fit” [A poet is born, not made], and in that sense, one cannot learn to be an artist; but one learns to know how to be (1986b, p. 111). So, poetry is a gift.

A reader of Freud, Pessoa also knows that the sphere of the unconscious, or subconscious, is vast and active, and the sphere of consciousness is small and almost static (1966b, p. 91).

Therefore, he states in a text that the faculty on which Art depends is Emotion (1966a, p. 201), and in another one, the work of art is a production of instinct (1966b, p. 7), an idea repeated several times.

Pessoa considers that the origin of art is instinct, but he also associates intelligence with the creative process. So, he joins the two and declares that the work of art derives from what can be called an intellectual instinct (p. 15), in a process in which a fusion of instinct with intelligence occurs (p. 14).

Moreover, in the creative process, it is by instinct that one reaches the object’s essence, and by intelligence, only the accessory is reached (p. 16-17). So, for Pessoa, instinct and emotion play the major role in art.

The relationship between art and life is complex, as we can see in the poem “Autopsychography,” where it is clear that the emotion of life is not the emotion of art, both for the author and for the reader. However, as the same poem shows, the emotion of life can be brought to art, but through a transformation, because even when the poet expresses the “pain he really feels,” he always does so through a process of pretense and intellectualization. This intellectualization is indispensable so that emotion can be shared with people.

Pessoa explains this process in detail in a letter to Adolfo Rocha (Miguel Torga), where he says that in order to make the sensitivity transmissible, the poet must proceed with an intellectual work, which occurs in two stages: a) the direct and instinctive intellectualization of sensitivity, by which it becomes transmissible; b) critical reflection on this intellectualization (1966b, p. 70).

Thus, we will have sensitivity (emotion), instinct, and intellect involved in artistic creation. Nevertheless, Pessoa is very clear on this, saying that it is the use of sensitivity, not sensitivity itself, that is worth in art (1986, p. 185), and in another text, he adds that the material of art is given by sensitivity, and intelligence directs the form. (1966b, p. 8).

Synthetically, Pessoa describes this process: “Art is the intellectualization of sensation (feeling) through expression. The intellectualization is given in, by, and through the expression itself” (1966b, p. 217). This process is reversible and can occur in both directions: from emotion to thought and vice versa, as seen in the concept of “complex ideation” launched by Pessoa in 1912, that supposes either an intellectualization of an emotion or an emotionalization of an idea (1986b, p. 41).

Then, the process implies that in the artistic object, emotion or feeling are intellectualized to be shared with the audience, thus implying the pair Emotion/Reason. This intellectualization of emotion or sensation is a process of abstraction that transforms common emotion into artistic emotion (1966a, p. 192), leading to the conclusion that art, having to unite the three qualities of Abstraction, Reality, and Emotion, cannot fail to become aware of itself as being the abstract embodiment of emotion (the emotional embodiment of abstraction) (1966a, p. 191). This process is explained in detail in the letter to A. Casais Monteiro, dated 1930-11-1 (2001, p. 285-6).

At the time of the launch of the sensationist movement, the literary movement created by Fernando Pessoa in 1914, and that is gathered by the *Orpheu* Group in 1915, Pessoa creates the metaphor of the cube of sensations (cf. 1966a, p. 183-188), which presents the whole process of the sensation experience analytically, and brings together the objective and subjective elements involved in a sensation. By this metaphor, he tries to show the complexity of this concept, which is interpreted and used differently by each heteronym.

This movement, about which Pessoa theorized a lot and intended to publicize internationally, promotes the idea that the basis of all art is sensation (1966a, p. 192). However, we must highlight that Pessoa extends the concept of sensation to ideas and dreams (1966a, p. 183).

Thomas Crosse, the literary character in charge of promoting this movement abroad, writes about Sensationism and how each of the heteronyms understood and practiced it. As he describes:

By sensation Caeiro means the sensation of things as they are [...]. For Campos, sensation is [...] not necessarily sensation of things as they are, but of things as they are felt, [...] or, as Campos says himself, “to feel everything in every way” [...]. Caeiro has one discipline: things must be felt as they are. Ricardo Reis has another kind of discipline: things must be felt, not only as they are, but also so as to fall in with a certain ideal of classic measure and rule (2001, p. 81; 1966a, p. 341-2)².

2. Text published in 1966a without attribution of authorship. Richard Zenith attributed it to Thomas Crosse.

According to Pessoa, sensationist art must decompose each sensation because "Sensationism pretends, taking stock of this real reality, to realize in art a decomposition of reality into its psychic geometrical elements" (1966a, p. 183).

Pessoa insists on the idea that in art, the origin of the sensation is not important, "But that which, felt or thought, we think again as *someone else* is naturally transformed into art and, cooling down, acquires form" (2001, p. 285-6).

Regarding strong emotions in real life, Pessoa considers that they prevent the artist from writing about them while he lives them. In this sense, he considers that

Three sorts of emotions produce great poetry — strong but quick emotions, seized upon for art as soon as they have passed [...]; strong and deep emotions in their remembrance a long time after; and false emotions, [...], emotions felt in the intellect (1966b, p. 217).

So, the first two types of emotions can only pass into poetry after their experience, and the third type exists only in the intellect. Consequently, the composition of a lyric poem must be made not at the moment of emotion but at the moment of remembering it (1966b, p. 72). This entire process is repeatedly and thoroughly analyzed and described by Pessoa.

In this way, we can say that "Works of literature thus form a point of intersection between the most emotional, subjective parts of the mind and the most abstract and cerebral" (Dutton, 2009, Pos. 2133).

However, Pessoa considers genuine emotions useful for his literary activity, as he confesses in the letter to two French psychiatrists (2001, p. 157) and a letter to J. G. Simões (1986a, p. 180).

As he says, some mental states are sometimes used to write in the name and person of others. The heteronyms Álvaro de Campos and Bernardo Soares also argue in the same direction.

A short poem, "Vinha elegante, depressa" (Pessoa, 1990a, p. 88), quoted above, can illustrate the process of passing through the experience of sensation and its poetic transmutation. This poem seems to confirm the author's idea that "The best sort of love poem is generally written about an abstract woman" (1966b, p. 216) and his concept of artistic imagination, which is the imagination period (already rooted) + abstraction thinking (p. 124-7).

The poem shows how the poet quickly moves from the visual sensation (of a female figure) to thinking (abstraction) and how literarily transforms that sensation into another thing: "No poema não falo dela" [In the poem I do not speak of her]; "No poema falo do mar" [In the poem I speak of the sea] (Pessoa, 1990a, p. 88).

2.3 The reader's aesthetic process

The second stanza of the poem "Autopsychography" focuses on the reader's experience in the reading process and shows that in this process, the reader experiences an imagined pain, which does not belong to his own life, but also does not correspond to the two pains lived by the poet, the true one and the artistic.

In this sense, as stated in the last stanza of the poem, the work of art constitutes an "Imaginative experience" and that "objects of art essentially provide an imaginative experience for both producers and audiences" (Dutton, 2009, Pos. 1009).

It is the case of "aesthetic illusion," the "pleasurable mental state" experienced by the reader which, according to Werner Wolf,

consists primarily of a feeling, with variable intensity, of being imaginatively and emotionally immersed in a represented world and of experiencing this world in a way similar (but not identical) to real life (2014).

To make this poem, Pessoa certainly used his experience as a reader and how he intensely lived the "aesthetic illusion" and how it functioned as a trigger for his imagination. At the end of the poem "Isto," the poetic subject launches the challenge: "To Feel? Feel the one who reads!"

In the text "Aspects," he answers: "When we read, we stop living. Let that be your attitude. Stop living, and read. What's life?" (2001, p. 30).

Pessoa explains the drive for reading, saying that "In a poem, we must understand what the poet wants, but we may feel what we like" (2001, p. 241). It is the imaginative freedom of reading and the stimulus for dreaming that the young reader Pessoa highlights in his experience, as stated in a text presumably from 1910 (1966a, p. 17).

So, it is the fact that "To read is to dream, guided by someone else's hand" (2015, pos. 3447), which seduces the young reader Pessoa and makes him an addict, but it is simultaneously the same fact that provokes in the creator Pessoa the will to replace it with his creation, with his dream: "I have found out that reading is a slavish sort of dreaming. If I must dream, why not my dreams?" (1966a, p. 21).

This view of reading fits into the conception described by J. Carroll, which shows the similarities and differences between the reading process and dreams:

Unlike dreams, most literary works have a strong component of conscious conceptual order [...]. But like dreams, [...] literature taps directly into the elemental response systems activated by emotion (Apud Dutton, 2009, pos. 2122).

So, for Pessoa, reading is simultaneous an invitation to write and an occasion to dream. As the semi-heteronym Bernardo Soares states: “The best way to start dreaming is through books” (Pessoa, 2015, Pos. 6595).

2.4 *The fiction of heteronyms: The Theater of the Mind*

Oneness is a prison. / To be myself is to not be.
(Pessoa, 2006, p. 315).

The maximum exponent of the pretense aesthetic in Pessoa’s work is surely represented in the creation of heteronyms and multiple literary personalities. Through it, Pessoa consummates his depersonalization process to the highest degree, by “surrendering himself wholly to the work to be done,” as proposed by Eliot (1919), and becoming “the naked stage where various actors act out various plays” (Pessoa, 2015, pos. 4331).

In fact, by fragmenting and multiplying himself in personalities, Pessoa annuls his personality. He becomes “nobody,” as many of his texts say. But, being “nobody,” he can be “everybody” and “feel everything in all ways.” That is, he becomes free.

He does so in order to create, as Bernardo Soares states in one of his texts and Pessoa himself in the draft of a letter:

I constantly create personalities. [...]. To create, I’ve destroyed myself (2015, pos. 4331).
Today I have no personality: I’ve divided all my humanness among the various authors whom I’ve served as literary executor. Today I’m the meeting-place of a small humanity that belongs only to me (2001, p. 296-7).

The phenomenon of multiple selves is part of the well-known fragmentation of the self and shattering of the subject of the modernist era, in the early 20th century, closely linked to modern society and life in large cities. This civilizational moment was widely analyzed by Pessoa and was treated literarily above all in the work of the heteronym Álvaro de Campos (Cf. Loureiro, 1996, pp. 77-129), namely in his sensationist phase. However, the other heteronyms also represent a reaction and a response to this historical moment, even if indirectly, either through the refuge in space, with Alberto Caeiro, the poet of Nature, or through the refuge in time, with Ricardo Reis, the classic poet.

It is a process of “Pulverization of the personality” or “The dissolution of personality,” described in detail in a long text by the semi-heteronym Bernardo Soares (2015, Pos. 6572).

In addition, this multiplication operates in the sense of producing knowledge, above all self-knowledge, providing the possibilities for new points of view. Furthermore, in the opinion of José Gil, it is necessary to proliferate in others to become oneself (1987, p. 153).

We must remember that Campos states, “Multipliquei-me para me sentir, /Para me sentir, precisei sentir tudo” [I multiplied myself to feel myself./ To feel myself, I needed to feel everything] (1993, p. 166), and Soares reiterates that, saying, “By delving within, I made myself into many” (Pessoa, 2015, Pos. 1754).

Thus, on the one hand, by creating heteronyms and multiple literary personalities, Pessoa takes on more radically what he considers to be his facet as a dramatic poet and reaches the highest degree of poetry, which he established (cf. Pessoa, 1966b, p. 69): one in which we will have a poet who is several poets, a dramatic poet writing in lyric poetry (1966a, 107). On the other hand, simultaneously, through a method that requires learning and training, one goes through several stages and reaches

The highest stage of dreaming [...], having created a picture with various figures whose lives we live all at the same time, *we are jointly and interactively all of those souls* (2015, pos. 6626).

In our opinion, through this process, Pessoa also moves from a fictional “as if” model to a “what if” model, that is, counterfactual thinking, used to produce knowledge in the “Thought experiments” through counterfactual thinking. We consider here that “counterfactuality is a principle of divergence that makes visible a vast horizon of alternative stories” (Ryan, 2013) and that this is also visible in fiction since this “is an enhancement and extension of counterfactual thinking into more possible worlds with more possibilities than life experience could ever offer up to an individual” (Dutton, 2009, pos. 1993).

In short, Pessoa takes up one of the original uses of the practice of pretending, applying it “to serious ways of pretending, postulating, or hypothesizing” (Schaeffer, 2013), placing it at the service of the production of knowledge.

By postulating “what if” I was a keeper of flocks (Caeiro), “what if” I was a classical poet in the age of decay (Reis), “what if” I was a naval engineer in an era of speed and machinery (Campos), “what if” I was a bookkeeper in the city of Lisbon (Soares), Pessoa builds several possible worlds.

Furthermore, by placing all these “personae” in interaction, he constructs and gathers a series of different points of view, for which the word “Aspects” points out, the title given to the preface of a projected publication of the works produced by these authors. Pessoa explains in that text that: with writing these «aspects» of reality, I do not intend a philosophy that insinuates that there are only aspects of a reality that are real or elusive, or non-existent (1966a, p. 100). Thus, it is implied that reality and the world are plural and polyphonic, that there are other realities and other visions of reality. Thus, all certainties vanish.

It also happens that Pessoa usually creates personalities in pairs, which represent opposite ways of seeing reality, living life, and writing, a fact that works in the same direction. Each creature is the opposite of the other.

In this way, we can say that Pessoa builds a plot that could fit the notion of "negative plotting" proposed by Susan Lanser (2011), which "outlines how competing plots, "one shadowing the other," become meaningful in their mutual contrast" (Kukkonen, 2014).

Let us see the case of the account of the genesis of heteronyms made in the letter to Casais Monteiro, on 1935-1-13:

Once Alberto Caeiro had appeared, I instinctively and subconsciously tried to find disciples for him. From Caeiro's false paganism I extracted the latent Ricardo Reis [...]. And then a new individual, quite the opposite of Ricardo Reis, suddenly and impetuously came to me (Campos) (2001, p. 291).

Similarly, Pessoa defines each character in several other texts and the interrelationships established between them, as in the text "Aspects" (2001, p. 29).

In doing so, he invites the reader to compare the fictional worlds and think about them, building knowledge, but he also builds knowledge, as revealed in the same text.

Thus, in a kind of interpersonal journey, Fernando Pessoa created a whole structure encompassing the entire literary institution, creating works, authors, theorists, philosophers, editors, commentators, critics, and translators. We highlight the case of the brothers Thomas and I. I. Crosse, who write prefaces and comments in English, among other texts. Thus, in addition to the contrast that each one establishes with the others, each of these authors is viewed from several angles, sometimes being the target of criticism and contestation.

Referring to the heteronyms Caeiro, Reis, and Campos, Pessoa stated in the text "Tábua Bibliográfica" (1928) that each individuality forms a kind of drama, and all of them together form another drama. It is a drama in people instead of acts (1986a, p. 250).

In a 1931 text referring to the heteronyms, Pessoa writes that these names represent invented people, figures in dramas, or isolated characters reciting in a novel with no plot (1990b, p. 379).

As Teresa Rita Lopes wrote, we would say that this is a "novel-drama-in-people" because the "characters" act and interact, but their stories are also invented and told by the author, the heteronyms, and other literary personalities.

In the letter to Casais Monteiro on 1935-1-13, Pessoa recounts the appearance of the heteronyms suddenly and in an epiphany, the almost automatic

writing of dozens of texts and the return to himself as Fernando Pessoa, on "the triumphal day of my life," "March 8th, 1914" (Pessoa, 2001, p. 291). However, several aspects reported are fictitious, such as the date of "the triumphal day," indicated as "March 13th, 1914" (2001, p. 297) in the draft of a letter addressed to the same recipient. The same with the attribution of the authorship of some poems referred to.

So, as Richard Zenith says, "Over the years he had been carefully plotting and refining it" (2001, p. 285). In this plot, the creator established a hierarchy among his creatures, elevating Alberto Caeiro to the place of Master of all the others and placing himself as a character and disciple. This plot of Caeiro and his disciples sets up an analogy with the story of Christ. Caeiro, "the only poet of Nature" (Pessoa, 2006, p. 61), also brings a Good News: "I bring to the Universe a new Universe, /Because I bring to the Universe its own self" (p. 43). In 1916, Pessoa presented him as one of those who act on men like fire, which burns everything accidental in them, and leaves them naked and real, proper and true, and these are the liberators. Caeiro is of this breed (1966a, p. 110).

We must remember that Caeiro was integrated into the "Portuguese Neopaganism" movement, projected by Pessoa (cf. 1966a, p. 221-325). Thus, for Pessoa, Campos, Reis, and Mora, the appearance of Caeiro functions as a Revelation and represents a milestone in their lives and their works. Each has a phase before Caeiro (b. C.) and another after Caeiro (a. C.). They all tell this story and the effect it had on them, which is summed up in each one's encounter with his truth and liberation. In addition to them, the brothers Thomas and I. I. Crosse also comment on Caeiro's life, work, and influences. Thus, this story is told polyphonically, in a kind of "recreational metaphysics," an expression by Ricardo Reis.

Caeiro affirms himself as "the Argonaut of true sensations" (2006, p. 43), refuses thought (p. 11) and subjectivity. However, as Thomas Crosse says, the Master "has contradictions," contrary to what he claims, he is "a very great thinker" (1990b, p. 439), and "his simplicity is full of intellectual complexity" (p. 442).

Another point should be referred to in this novel-drama: crossing the borders between ontologically different worlds, the actual and the fictional one.

We can see that Campos jumped from fiction to the real world, interfered in the author's personal life, such as dating Ophelia, and intervened in public life, writing letters to the newspapers, which negatively affected Pessoa and the Orpheu group itself, what Fernando Pessoa complains about (1986a, p. 250).

Conversely, Pessoa jumps from reality to fiction, becoming a character on equal terms with his creatures and even becoming Caeiro's disciple.

Moreover, Pessoa writes in the text “Aspects”: “Some of them have met each other; others have not. None of them ever met me except Álvaro de Campos” (2001, p. 30).

Indeed, it is a case of metalepsis, in which a fictional figure jumps into the real world and vice versa. In this sense, this whole case configures an “impossible world,” an incompatible world, and in contradiction with the actual world.

3 CONCLUSION

For the creative combination of intelligence, emotion, and above all imagination, Fernando Pessoa left us a multifaceted, polyphonic, and challenging work. He established very well the difference between life and art, ordinary emotion and imagination, and artistic emotion and artistic imagination. He showed us the reality as mutant and kaleidoscopic.

He created his “theater of the mind” (Dutton, 2009, Pos. 1804), his “theater of the imagination” (Pos. 1009), where we can see how the creator and his creatures conceive and practice literary creation, how they use Reason (Mind) and Emotion in their creative process, how they stand in the face of the feeling/thinking and life/art binomials.

There are no definitive answers for readers in this universe: we can react with the Heart (Emotion) or with the Reason. Or, in Pessoa’s view, considering that in this writing/reading game, the heart is “A little clock-work train/ To entertain our minds” (2006, p. 314).

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Herberto Helder (1930-2015), F. Pessoa (1988-1935), Hugo von Hofmannsthal (1874-1929), Blauer Reiter's and Rothko's modern poiesis: On the creation of literary emotionality

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ABSTRACT: Having in mind H. Helder's poetry of the sixties and seventies of the 20th, and his praising of Hofmannsthal's *Ein Brief* (1902) and Pessoa's poetry and poetology corresponding to the *Orpheu* phase, this chapter reflects on modernity roots using the poetic creation and the poetologic thesis on modern literature shown in the poetry of H. Helder's and his declared mentor: E. Bettencourt's; finally, it launches a bridge on the field of Rothko's and Blauer Reiter's modern painting aesthetics in order to better understand the essence of the poiesis of emotions in modern art so that one might draw the respective approach and similarities between creators of different origins and epochs of the 20th century.

Keywords: Emotionality, Modern-art, Poetology hofmannsthal, H.Helder, Pessoa, Poetry, Blauer Reiter, Rothko, Aesthetics

Eduardo Lourenço in memoriam

1.

In 1979 H. Helder published *Photomaton & Vox*, a literary and acclaimed artwork wherein he tries to balance his poetic creation and his poetologic thesis on modern literature. He explains how the former adjusts itself to a narrative and descriptive literary speech while summoning an emotional vociferation [vociferação comovida] (Helder, 1979, p. 145); he faces the essential question of modern poetry by developing his position on how emotionality can exist without subjectivity; it does not matter any longer what any individual creator says, reflects or attends to that matters, but what the poet does and creates, at the moment he creates a new language through which description, persuasion, story-telling, and ordinary world representation no longer have a place. The creator is not expected to be personally sincere but instead, a pretender who, by due expression, knows how to forge emotions, the voice of which is the result of the poet's competence to draft a system of questions, mysteries, and enigmas in order to favor the emerging of a consciousness about the drama every human being faces. Dealing with the contradiction between rationalization and feeling, the modern poetic creator forges a scenario wherein the word plays its role by representing an idea amidst the drama of humanity's existence as

A. Casais Monteiro explains well by referring to Pessoa's poetry in a short essay: "Fernando Pessoa: O Insincero Verdíco" [The truthful insincere] held in The British Institute - Lisbon: 1954 (Monteiro: passim). By doing so, such an artist translates into the poetic language energy that is picked up from the existence he begins to feel and ends by performing Other's sensitivity under the direction of his imagination, spreading its living projections throughout his artwork. Therefore, every modern poetic creation should simultaneously foster what is to happen and be developed during the interaction between opposites, which will command every contradiction expressing mode that every individual may pass through. A literary dynamics which refers itself to the romantic poetology under Novalis' conception is then to be recalled whenever such an interaction between opposites is called to structure such a poiesis, the literary reality of which appears as the outcome of imagination/fantasy; modern artworks cannot exist without imagination if they seek to respond either to collective existence or to the source of every modern poetic creation: emotionality combined with its adequate intellectual way of expression – only then will they be well succeeded in their technique through insincerity (Monteiro, 1954, p. 21). Modern poetic creation, taken as a milestone, will be the result of such an aesthetical

consciousness as long as evidence of the poetic reception of everyone's existence is well recognized and during which almost everyone averts then, his personal spiritual, emotional, and unconscious features as Helder states in "(memória, montagem)" [(memory and montage)] (Helder, 1979, p. 152). Nevertheless, every poetical creation will raise itself as an autonomous artwork out of everyday experience just by working out every word intentionally; moreover, every act-of-speech will, from there, be offering enough material to be the object of condensation and potentiation to be gathered under a form that always departs from a former empirical reality. Under such a technique, every poetical existence thus invented will be taken as a symbol because it will boost an energy which will magnetize evidence whose exegesis every other technological science will be unable to offer trustfully:

The purpose of the poem is to make itself clear and to turn the experience of which it is a clearance and intensification of, to be alive:

O poema inventa a natureza, as criaturas, as coisas, as formas, as vozes, a corrente magnética que unifica tudo num símbolo: a existência." (Helder, 1979, p. 150)¹

What reason explains such a process? According to H. Helder, the poetical experience is just a "(Nota Pessoa)" [(Personal Note)], e.g., that hard work dealing with forms, exhibition, and deciphering (Helder, 1979, p. 124) in order to make every act-of-speech as operative as it is creative. Such work becomes hard because it structures all the time of the experience within collective reality as long as the creator builds his absolute and revolutionary power upon the language. Connotations, allusions, and associations are not the only examples of a discontinuity along with every open and incomplete intelligible discourse as proof of a meta-discourse which will arise naturally if every THING singularity is to occur within an image: "(imagem)" [(image)] (Helder, 1979, p. 150). The exegetic competence of a poetical artwork will arise whenever it becomes a meta-discourse that can face dream-discourse and overcome an enigmatic comprehension whereby man's existence challenges him. (Helder, 1979, p. 20) A poetical creation gathers, then a vortex of energy within which emotionality will be translated through rhythm and metaphorical invention since the Verb itself will configure time along which man's unconscious flows. The latter shows itself in the form of a non-logical and non-rational succession

1. In a footnote, every Portuguese poem or/and essay quoted in this article will be given our own English translation. "Every poem invents nature, creatures and things, forms, voices, the magnetic current which unifies everything under a symbol: the existence. "(Helder, 1979, p. 150)

of snapshots which reveals itself as live elements of a proto-memory hovering all over while being able to land in the form of a unique act-of-speech:

Qualquer poema é um filme, e o único elemento que importa é o tempo, e o espaço é a metáfora do tempo(...). Não existe outra metáfora que não seja o espaço; aquilo a que chamam metáforas são as linha de montagem narrativa, o decurso da alegoria, o espectáculo (Helder, 1979, p. 154-5).²

This inner time becomes dominant through its abstraction and non-referential frameworks, of vigor and its distancing from ordinary sensation; on the other hand, the rhythm becomes the matrix under which words detached out of the Other's speech turn into word-configuring [*palavrar*] which are no more than pictographic moments, e.g., images to be seen and touched – expressing every modern creator's aspiration: the emotional and the new. Pessoa's semi-heteronym, B. Soares, asserts clearly in 130th fragment (1932): taking photos using words is the most straightforward way to word-configuring (*palavrar*) (frag. 15, Pessoa, 1982, p. 15):

Gosto de dizer. Direi melhor: gosto de palavrar. As palavras são para mim corpos tocáveis, serias visíveis, sensualidades incorporadas. Talvez porque a sensualidade real não tem para mim interesse de nenhuma espécie – nem sequer mental ou de sonho- transmutou-se-me o desejo para aquilo que em mim cria ritmos verbais ou os escuta de outros.³

Half a century later, H. Helder will also state that only words are concrete and to be touched; everything else is but a "*condição de ausência*" [condition of absence] and "*repentinas formas*" [sudden forms]: "(...) as condições não são as da palavra, mas as (...) condições da ausência" (Helder, 1979, p. 179-80)⁴. Though peculiar, it is the intertwining of enigmas that provokes a perplexity which expresses the voice of the collective unconscious through word-configuration: "L'inconscient esthétique, celui qui est consubstantiel au régime esthétique de l'art, se manifeste dans la polarité de cette double scène de la parole muette (...)." (Rancière, 2001, p. 41).

2. "Every poem is a movie, and the only element that matters is time, and space is the metaphor of time, (...). There is no other metaphor but that of space; that which is called metaphors are nothing but the montage lines of narrative, the course of allegory, the show."

3. "I like to utter. I will say it better ways: I like words-configuration. To me, words are bodies to be touched, sirens to be seen, incorporated sensations. Maybe because a real sensation has not any interest – not even for the mind or the dream –; my desire has moved towards that which in myself creates verbal rhythms or listens carefully to others".

4. "(...) muteness weights (...) words impose no condition, but rather their absence."

Poetical creation gives voice to the *Otherness* of every single player who reaches his several voices modulation by triggering his recipient's openness to *Otherness* (frag. 230, Pessoa, 1982, p. 256). Inside such an ineloquent poetic creation, along which every Other is praised while the several voices of his speech are by the poet in this way configured and amplified, we are to identify its animality, organics, imperiousness acting and dominating over the Other. A beauty emerges out of description, referentiality, rhetoric, and ideology. That is why it becomes the expression of silence and an opposing paradigm to the mainstream culture: the other side of modernity. "O silêncio é que deveria ter sido o ponto de partida para a experiência espiritual da modernidade." (Helder, 1979, p. 138)⁵. Re-featuring silence is the best way to say no to those poems praising a huge honesty, full of single grammar trickery and winking at Mr. everyday real (Helder, 1979, p. 139). Helder understands the modern poetic creation as an invention of arch-experiences: Experience is an invention, as he asserts quite acutely and innocently in "(os passos em volta, apresentação do rosto)" [stepping all around, presenting the face] (Helder, 1979, p. 71). Moreover, he underlines that movement of perpetual irony in objects, situations, and acting, making them appear as images or metaphors, translating ancient experiences which become elements of an inner composition though also part of the world and life:

Poderia escrever cem relatos diversos (...) Mas seriam verdadeiros, por serem todos uma invenção viva (...) Mas devemo-nos munir sempre de uma ironia que coloque dubitativamente a nossa mesma proposta (Helder, 1979, p. 73-4)⁶.

Let B. Soares or A. Campos - Pessoa's semi- and full-heteronyms - be remembered as examples of a modern creator: a builder of sensations - *sensationist* - to whom every artistic discipline is the translation of a sensation into another sensation (Pessoa, 1966, p. 168) while creating an entirely different reality from that suggested by every external and internal sensation. (Pessoa, 1966, p. 191). Let now be added to the literary speech, the projection of the emotional brilliance underlying everything felt within the process of modern poetic creation: "E vós, ó coisas navais, meus velhos brinquedos/de sonho! Componde for a de mim a minha vida interior! [...] Fornecei-me metáforas

imagens, literatura, [...]" as Campos utters under a free rhythm along "Ode Marítima" [Ode Maritime] (Pessoa, 1978a, p. 169)⁷ while achieving the poetic theory of his "*joco dinâmogéneo*" (dynamogenius focus) and turning himself into that source-focus of an abstract and sensitive condition enough to force the Other to feel what he has felt (Pessoa, 1986a, pp. 233-5).

2.

By the second line of the penultimate text of *Photomaton & Vox*: "(a carta do silêncio)" [(The Letter of Silence)] (Helder, 1979, p. 178-83), Helder asks, under a poetic essay style "if poetry is not a way to practice silence" (Helder, 1979, p. 178). In this "Letter," he reflects on how the language structured by the verb dynamics fosters this silence as an outcome of a greater tension caused by endless energy emerging through the unconscious flow and aesthetically expressed by an enigmatic and original metaphor, the correspondences and symbolizations of which become outstanding whenever they become unusual and overwhelming too: "A imagem ganha é uma metáfora [...]: símbolo do real [...]" (Helder, 1979, p. 179)⁸. He keeps on referring to his matrix: "Ein Brief," an essay, whose author is the prolific 20th-century Austrian writer: Hugo von Hofmannsthal (1874-1929), who published it in the Berlin newspaper *Der Tag* between 18 and 19 October de 1902, causing the appearance of a new literary paradigm from the turn of the century on giving light to the impressionist, symbolist and Jugendstil aesthetical movements. "Ein Brief" written by Lord Chandos has for recipient Francis Bacon- both fictitious -and distinguishes itself by a major goal: reflecting upon the way that poetic creation may overcome handicaps raised by centuries of tradition, the existence of which continued fast unnoticed on account of the abuses achieved by the vulgarization of the poetic word; Hofmannsthal proposes that the modern letter recipient initiate a voyage to the beginnings of the 20th century during which a never-ending high scientific development has been achieved. Nevertheless, H.v. Hofmannsthal underlines the need to keep a distance from Naturalism - since it submits the use of the word to the needs and fidelity of a sociological reality which, respecting the method of experimental science, almost forgets the psychic reality of every individual - on the contrary, the use of a modern word should then adjust itself to the sensitivity of the modern man (Grimminger, 1995, p. 186-8). Lord Chandos is then characterized as a projection of the literary creator who finds himself in the middle of a roundabout and whose

5. "[Silence should be the departure point of every modernity's personal experience."

6. "I could write hundreds of diverse reports. [...] However, they would be real since they are living inventions. (...) Nevertheless, we should always provide ourselves with such an irony so that our proposal might be seen under the doubt effect."

7. "And you, naval Things [...] /Configure outside myself my inner life! / [...] Do give me metaphors, images, literature, /([...])"

8. "The conquered image is a metaphor [...] symbol of the reality[...]"

decision can no longer be postponed. The recipient is then introduced to an author who is conscious of his aspiration to a literariness resistant to a sociological truth and an art for art's sake literary strategy along which the creator lives in an ivory tower under the cult of an alienating artificialism. Referring itself to a fictitious historical reality too: 1603 – beginnings of the Baroque and first phase of the German Aufklärung-, Hofmannsthal focuses on a practical detail: the recipient is to claim for the value of the literary word outside the edifying and encyclopedic literary traditional speech under a referential staging; he is then challenged to understand the modern writer's living drama, especially when the latter feels the need to change the use of the literary word deeply:

Ich wollte die Fabeln und mythischen Erzählungen, welche die Alten uns hinterlassen haben, und an denen die Maler und Bildhauer ein endloses und gedankenloses Gefallen finden, aufschließen als die Hieroglyphen einer geheimen, unerschöpflichen Weisheit, deren Anhauch ich manchmal, wie hinter einem Schleier, zu spüren meinte. Ich entsinne mich dieses Planes. [...] Ich wollte noch vielerlei. Ich gedachte eine Sammlung »Apothegmata« anzulegen, [...] damit wollte ich schöne Sentenzen und Reflexionen aus den Werken der Alten und der Italiener vereinigen, [...] und noch vieles andere. Das ganze Werk aber sollte den Titel *Nosce te ipsum* führen. (Hofmannsthal, 1902)⁹.

Episodes throughout the creator's existence gain the status of an enigmatic revelation-encounters whose signification recipient, and author, assimilate as the epiphany of an evident *emotionality*:

Denn was hätte es mit Mitleid zu thun, was mit begreiflicher menschlicher Gedankenverknüpfung, wenn ich an einem anderen Abend unter einem Nußbaum eine halbvolle Gießkanne finde, die ein Gärtnerbursche dort vergessen hat, und wenn mich diese Gießkanne und das Wasser in ihr, das vom Schatten des Baumes finster ist, und ein Schwimmkäfer, der auf dem Spiegel

9. Every german quotation from "Ein Brief" is taken out of: <https://www.reclam.de/data/media/978-3-15-019503-1.pdf> The english version of "Ein Brief" is always quoted from: https://depts.washington.edu/vienna/documents/Hofmannsthal/Hofmannsthal_Chandos.htm - "I wanted to decipher the fables, the mythical tales bequeathed to us by the Ancients, in which painters and sculptors found endless and thoughtless pleasure in deciphering them as the hieroglyphs of a secret, inexhaustible wisdom whose breath I sometimes seemed to feel as though from behind a veil. I well remember this plan. [...] And I longed for more. I planned to start an *Apothegmata*, [...]. With these, I meant to combine the brilliant maxims and reflections from classical and Italian works, [...] and many other things. The whole work was to have been entitled *Nosce te ipsum*."

dieses Wassers von einem dunklen Ufer zum andern rudert, wenn diese Zusammensetzung von Nichtigkeiten mich mit einer solchen Gegenwart des Unendlichen durchschauert, von den Wurzeln der Haare bis ins Mark der Fersen mich durchschauert, daß ich in Worte ausbrechen möchte, von denen ich weiß, fände ich sie, so würden sie jene Cherubim, an die ich nicht glaube, niederzwingen, und daß ich dann von jener Stelle schweigend mich wegkehre. (Hofmannsthal, 1902)¹⁰.

More than a symbolic contribution to a reality perceived by a sentient individual, Chandos denounces an overwhelming emotionality felt by the latter, which allows him to experience the drama inside the conscience of a modern creator, e.g., demiurge; doing so, he gets to know the value of the agglutinating vortex gathering all sorts of images substantiated by such a drama epiphany representing such a comprehension of the whole experience:

Mein Inneres aber muß ich Ihnen darlegen, eine Sonderbarkeit, eine Unart, wenn Sie wollen eine Krankheit meines Geistes, wenn Sie begreifen sollen, daß mich ein ebensolcher brückenloser Abgrund von den scheinbar vor mir liegenden literarischen Arbeiten trennt, als von denen, die hinter mir sind und die ich, so fremd sprechen sie mich an, mein Eigentum zu nennen zögere (...). Mein Fall ist, in Kürze, dieser: es ist mir völlig die Fähigkeit abhanden gekommen, über irgend etwas zusammenhängend zu denken oder zu sprechen. (Hofmannsthal, 1902)¹¹

Chandos asks the modern science forerunner and experimental method creator, Francis Bacon- Lord Verulam, and metonymically takes them as a pattern of

10. "For what had it to do with pity, or with any comprehensible concatenation of human thought when, on another evening, on finding beneath a nut-tree a half-filled pitcher which a gardener's boy had left there, and the pitcher and the water in it, darkened by the shadow of the tree, and a beetle swimming on the surface from shore to shore when this combination of trifles sent through me such a shudder at the presence of the Infinite, a shudder running from the roots of my hair to the marrow of my heels? What was it that made me want to break into words which, I know, were I to find them, would force to their knees those cherubim in whom I do not believe? What made me turn silently away from this place?"

11. "But it is my inner self that I feel bound to reveal to you - a peculiarity, a vice, a disease of my mind if you like - if you are to understand that an abyss equally unbridgeable separates me from the literary works lying seemingly ahead of me as from those behind me: the latter having become so strange to me that I hesitate to call them my property. [...] My case is this: I have entirely lost the ability to think or speak of anything coherently."

the scientific, literary creation distinguishing them thus as crucial to the modern and original way of feeling:

Jeder dieser Gegenstände und die tausend anderen ähnlichen, über die sonst ein Auge mit selbstverständlicher Gleichgültigkeit hinweggleitet, kann für mich plötzlich in irgend einem Moment, den herbeizuführen auf keine Weise in meiner Gewalt steht, ein erhabenes und rührendes Gepräge annehmen, das auszudrücken mir alle Worte zu arm scheinen. (Hofmannsthal, 1902)¹².

More than pointing out immediately the incapacity to generate a true expression, H. v. Hofmannsthal reveals how important it is to be conscious of the poetic creation whose literary praxis will not entirely be worn out by its encyclopedic or psychological roots. His essay protagonist will always call for the adjusted form to the signification potential provided by the speech competence as a flexible pattern applied to the signification magma lying inside the universal language. Existence and objective reality share the personal and simultaneously universal inner value that helps structure a language beyond objective knowledge. "Ein Brief" summons the essence of emotionality that is intimately indispensable to the act of literary creation, which is at the same time an exercise of meta-discourse while revealing the semantic wealth every creator disposes of in order to combine metaphorically all of the proposals that his imagination can raise. Thus imagism creatively built during every speech act makes the latter a translation of the mystery born out of reality; it turns it into an artistical potentiation of significations through every modern individual's sensitivity. Emotionality gains its form through a vision come out of reality, during which moments of ecstasy are to be given form throughout every speech act:

[...] weil die Sprache, in welcher nicht nur zu schreiben, sondern auch zu denken mir vielleicht gegeben wäre, weder die lateinische noch die englische noch die italienische oder spanische ist, sondern eine Sprache, von deren Worten mir auch nicht eines bekannt ist, eine Sprache, in welcher die stummen Dinge zu mir sprechen, und in welcher ich vielleicht einst im Grabe vor einem unbekanntem Richter mich verantworten werde. (Hofmannsthal, 1902)¹³

12. "Each of these objects and a thousand others similar, over which the eye usually glides with a natural indifference, can suddenly, at any moment (which I am utterly powerless to evoke), assume for me a character so exalted and moving that words seem too inadequate to describe it."

13. "because the language in which I might be able not only to write but to think is neither Latin nor English, neither Italian nor Spanish, but a language none of the words of which is known to me, a language in which inanimate things speak to me and wherein I may one day have to justify myself before an unknown judge".

3.

According to H. Helder, poetic creation becomes a form whose organic rhythm acts over the memory, causing the imaginary metaphor after metaphor unfolding and thus generating a succession of enigmas; the recipient is then challenged to decipher them as soon as the imagination overcomes their focus by delivering its total energy. Helder recovers the *sensationist* paradigm of Pessoa's detaching of every emotional brilliance underlying every objective real Thing, depicting simultaneously the singularity proper to every aesthetical detail taken as so by the literary speech-act; the reader will be then to feel such an emotionality brilliance in a new day-to-day scene created throughout the modern artwork (Borges, 2000, p. 119). Such a universe of significations arises under the condition of a matrix whose expressivity is then consolidated by its amazing and astonishing simplicity while "being true to my imagination." (Borges, 2000, pp. 113; 106; 102) Throughout every and above all insincere speech act, at the center of which lies the long range of the whole artistic emotion thesaurus, the poetic creation will prove itself to care always for the maximization of all kinds of interpretation of its enigmas since within such a process is gathered the resistance against every hidden ideology; not to mention the help of rhythm too, which is a major weapon against any manipulation led by grammar or functional pragmatism, since these are all tools which contribute to every unusual meaning to emerge unexpectedly. This new, emerged form derives rapidly and spontaneously from the observance of what is the natural rhythm that any language is capable of; expected meanings give way to others that underlie their everyday use and waiting to be heard as Helder asserts in "(guião)" [(screenplay)]: 1. (...) A forma lida renasce continuamente após cada leitura e permanece em equilíbrio no perigo de uma multiplicidade de legibilidades. (Helder, 1979, p. 145)¹⁴. The creative movement proper to every language matrix provides such a poetic variation and its adequate truth, which is lying in the respective inner time waiting to be awakened by the poet's attentive imaginations as long as he succeeds in condensing the layers of the significations and in reaching peculiar compactness to strengthen the obscurity of every speech act: wherein, according to Helder, lies the evidence of modernity. This is it: the evidence that memory - the poet's interpretation of the collective memory - comes to light by breaching darkness - flash of light, since the conversations of images amidst modern poetic creation, generates the abduction of every true creator; this ends by being proficient enough while

14. "1. A form just read keeps returning to its rebirth every time that it is reread, holding its balance amidst the hazard caused by multiplying of its interpretations."

handling with the potentiation of real things through which he gives form to the matter and by dematerializing it. Helder's modern poetic creation becomes the space for silence and innerness (Helder, 1979, p. 183; 181; 182): the mute condition of the word imposing itself over the form which glimmers through short and *sudden forms*; he underlines, therefore, the *condition of absence* while making the very use of words in order to build a metaphor out of an image within which silence grows overwhelmingly by every speech act (Helder, 1979, p. 179-80). With the help of the putative letter from Lord Chandos to Lord Verulam (Helder, 1979, p. 181), Helder recovers the "pain" within the proto-silence, which testifies to the hieratic relationship every modern creator nourishes throughout his existence. After all, everything is about enchantments, especially the: simultaneous enchantment (*Bezauberung*) accompanying the object related representation and the respective infinitesimal (*Nichtigkeit*) revelation felt during certain moments of everyday life; awakening towards the linguistic insufficiency of its common expressivity; incorporation of the "heart's thinking" (*mit dem Herzen denken*). Along with Hofmannsthal, Helder praises the silence's voice generated in front of:

Ich kann nicht erwarten, daß Sie mich ohne Beispiel verstehen, und ich muß Sie um Nachsicht für die Alltäglichkeit meiner Bei spiele bitten. Eine Gießkanne, eine auf dem Feld verlassene Egge, ein Hund in der Sonne, ein ärmlicher Kirchhof, ein Krüppel, ein kleines Bauernhaus, alles dies kann das Gefäß meiner Offenbarung werden. (Hofmannsthal, 1902)¹⁵

He also stresses rhythm translating every literary outburst caused by the succession of:

Diese stummen und manchmal unbelebten Kreaturen heben sich mir mit einer solchen Fülle, einer solchen Gegenwart der Liebe entgegen, daß mein beglücktes Auge auch ringsum auf keinen toten Fleck zu fallen vermag. Es erscheint mir alles, alles, was es giebt, alles, dessen ich mich entsinne, alles, was meine verworrensten Gedanken berühren, etwas zu sein. (Hofmannsthal, 1902)¹⁶

15. "I cannot expect you to understand me without examples, and I must plead your indulgence for their absurdity. A pitcher, a harrow abandoned in a field, a dog in the sun, a neglected cemetery, a cripple, a peasant's hut—all these can become the vessel of my revelation."

16. "These mute and, on occasion, inanimate creatures that rise toward me with such an abundance, such a presence of love, that my enchanted eye can find nothing in sight that is devoid of life. Everything that exists, everything I can remember, everything touched upon by my confused thoughts, has a meaning."

Helder searches free and direct rhythms giving birth to an apparently insignificant form full of silent essentiality that is capable of causing, within a modern recipient, a replica which might be felt as the proof of a source of such an enchantment, read under the suspicion of the configuring of enigmas which are the expression of an infinite ineffability. Agreeing with E. Lourenço, Helder (Bettencourt 1999, p. 10) thinks through an immediate, fluent, sparkling, full of matter way, adjustable to that level of language which is pregnant with that full plausibility on account of its perplexity and openness to the space of silence. Helder supports Lourenço's thesis: every silent discourse redirects its place-status to the one existing before any word's appearance and by doing so coherently establishes the absoluteness of the modern poetic creation on the nature of the recreation of emotionality throughout every sparkling speech-act illuminating the literary stage where living-by-the-moment takes place (Lourenço, 2016, p. 151, 153, 159). Such a process summons up an "active factor" (Vietta, 2007, p. 32), as defined by Vietta. Without such a creator-recipient interaction through *emotional-ity* creating a word-to-word new literary universe, it would be impossible to make a proto-reality common to creator and recipient arise and gain its actual status. Nor would the recipient's sensitivity be at any time challenged to unfold all the legibility that the fictitious reality is a straight example. Modern poetic creation exemplifies then, a kind of *littérature à rebus* (Bahr, 1892), thus exemplifying the value of every contribution from the unconscious to the process - including that wonderment which arises as a state of mind felt by every individual who, with the help of his dreams exegesis method, goes on experiencing every living moment he passes through during his existence (Benjamin, 2006, p. 98). As a creator, he remains discretely incognito so that the "prosaic and urbane" word might land in the center of every modern poetic language and reject every allegory or moral ruling tacitly accepted (Benjamin, 2006, p. 100-1). The creator of such a poetical artwork can never be an individual entity but rather a collective one whose Otherness's voice may exclusively: 1- generate perplexities as a result of multiple foci (Kiesel, 2004, p. 25), thus illustrating a text production process of autonomy wherein the author's personality is then surpassed (Kiesel, 2004, pp. 130; 131; 133-4); 2- constantly search "predicative impertinences" (Ricoeur, 1989, pp. 213-7).

These will emerge as a result of fragmentation and condensation through the various levels of signification/significance, which will impose itself. The more concrete and prospectively relevant, the more it will play its role. Therefore, reality transformation will occur under the aims of an aesthetic of resilience, the essence of which lies amidst every modern literary creation (Barthes, 1978, pp. 26-8). It will then assume its counter-power feature, since within

that space of “language of utopia” lies also the one open to the world’s transformation by means of “les textes de l’imaginaire (...) les structures qui jouent (...) d’une apparence de vraisemblable et d’une incertitude de vérité.” (Barthes, 1978, p. 39). In this process, let the dislocation of the real-time dimension from factual to fictional reality as a strategy to resist simultaneously against the collective ideology be stressed: “La modernité (...) peut se définir par ce fait nouveau: qu’on y conçoit des *utopies de langage*.” (Barthes, 1978, p. 23). Such a poetic creation will launch its roots deep into the perfect innerness (Helder, 1979, pp. 183; 181; 182) through which, during such a process of de-materialization: 1- creative individuals (identifiable creator and recipient); 2- matrix reality (objectual and trivial day-to-day reality); 3- recognizable signification (unanimous and automatic exegesis); 4- figurative representation (personal and biographical implications) will ever prevail.

4.

In an artwork from the sixties, *O Bebedor Nocturno* (1961-66) [the night drinker (1961-66)], H. Helder defends a golden rule: freedom (Helder, 1973, p. 210). One might infer that he refers to the one shared between the author’s poetic creation and the recipient. He explains it in a preface: the emotional, mental and linguistic meaning leaves its presence during the interactive moment between recipient and artwork. He shares his own experience during the moment wherein such an imminent and tacit interaction takes place whenever he reads a poem written in another tongue that he does not speak/understand entirely. Should it be written in English, Spanish, French, Italian, Arabic, he only cares about the subsequent literary outburst as an outcome of the pleasure he gains by adjusting his poetic sensitivity and pragmatics facing such unintelligible writing “(...) a temperatura da imagem, a velocidade do ritmo, (...) a pressão do adjetivo sobre o substantivo.” (Helder, 1973, p. 210)¹⁷ He does not even dare to translate it; he prefers to adapt, absorbing thus, the impact left by the prosody-at-the-moment gaining advantage from the immediate linguistic-emotional assimilation under a form which launches an indirect version of it, a sort of *action-writing*, which will give rise to the pre-expected shocking pleasure within the recipient’s soul:

(...) procuro construir o poema português pelo sentido emocional, mental, linguístico que eu tinha, sub-repticiamente ao lê-lo em inglês,

17. “the temperature of the image, the velocity of the rhythm, the atmospheric density of the word, (...) the pressure of the adjective over the substantive.”

francês, italiano ou espanhol. (Helder, 1973, p. 210)¹⁸.

At the beginning of the same decade, H. Helder wrote: “Relance sobre a Poesia de Edmundo Bettencourt” [A glance over E. Bettencourt’s poetry] (1963). This short “introduction” to Edmundo Bettencourt’s poetry would only be published in 1999 when the volume of the latter’s poetry was published. Such a “Glance” points out what, by the early thirties, distinguishes such poetry as modern, since it exposes an autonomous truthfulness in what refers to values praised by humanist, ethical, historical, social environments:

A noção de poema como uma vida, organismo com leis específicas e realidade autónoma, é possivelmente a mais revolucionária proposta da lírica moderna. (Bettencourt, 1999, p. 18)¹⁹

Modernity within such a poetic creation will be available with the help of the recipient’s emotionality as long as the latter reacts using his imagination, thus proving the fictitiously impertinent interaction between the individual and the *objectuality* of the constructed imagistic reality. The recipient will finish up surrendering to the Wonderment (*pasmo*) within such artwork as soon as he no longer depends on the recognizable reality that gets closer and closer to the comprehension of unrecognizable reality, praising the latter’s survival as soon as such Otherness entity acts decisively enough to transform mainstream cultural goods by fostering prospective linguistic performance by giving expression to: 1- a fantastic reality under; 2 - an unexpected poetic act-of-speech. Helder points out the condition of composing and reinventing what the *raw-tongue* offers through every speech act: language generates language, enlarging its huge universe of significations whenever emotionality plays a major role in every communication act. Moreover, during every moment of dense perplexity that every individual life through and wishes to express under a creative configuring process, he will be looking to translate his experience. The artist reinvents this through a factitious representation, and such an experience-by-the-moment turns into another new one felt by an imagined sentient subject:

Que a verdade está na imaginação, não seria descoberta nenhuma, mas procurar que a própria imaginação deixe de contar com a *tradição da*

18. “I intend to make the Portuguese poem, according to the emotional, linguistic mental meaning I have surreptitiously perceived when I read it in English, French, Italian, or in Spanish.”

19. “The assertion of the poem as a creature, a living organism under specific laws and having a life of its own, turns into the most revolutionary proposal of modern lyrics.”

realidade para a conquista de uma verdadeira vida e que (sobretudo isto) a imaginação encarregue o poema de realizar o acto de um corte decisivo com os princípios do humanismo e da experiência histórica, do sentimento, da ética e da cultura – é algo de soberbamente arrojado. (Bettencourt, 1999, p. 18)²⁰

The revolutionary character of such a poetic creation may be deprived of its narrative character but not of a massive universe of ambiguities, whose connections will not be borne by any logical causality. However, on the contrary, by multiple associations and analogies – every image will lead to the realm of analogy (Bettencourt, 1999, p. 17) – through which decisive emotionality and imagination will master unusual and original linguistic forms of expressivity. A new reality is then given a form full of ambiguities and density in its complexity as long images taken out of ordinary day-to-day life, though imagined and over-imagined, are driven towards its infinite potentiality while destroying the functional scope of every word that is pragmatically used. Simplicity and originality performed through such a poetic creation will be reinforced with the help of verbal forms so that its temporality dynamics may induce well-balanced significations underpinned by rhythm, prosody, and fragmentation experiences. These will be decisive to mastering new imagism – apparently by chance, a kind of automatic writing practice. This imagism is then supported by encouraging connections showing an elementary but profound one typical of a modern meaning due to the complexity of such a nexus (Bettencourt, 1999, p. 16). Such a poetic creation might reveal a putative wondrous and exuberant depicting narrative, but it will end by gaining a different status because its analogies will be building another type of consciousness, the dimensions of which appear to be unheard of. A new realm of objects will then emerge since such a poetic form will be granting a new reality: the reality within the poem, whose references are no longer directly available because this poetic creation turns itself against any realist trend, disrespecting ordinary reality and holding back its normal contingency. Imagination plays an essential role within the expressivity and literariness of such a creation since it adheres to the *dialectics of modernity* – just as Helder quotes H. Friedrich (1878-1904). Its word configuring will remain libertarian – following Rimbaud’s (1854-1891) example, whom Helder admires

20. “Truthfulness lies in imagination: this would not be any wonder; trying to make imagination free from the *tradition of reality* in order to let it conquer real life and [above all] that imagination makes the poem responsible for a rupture of principles of humanism and of the historical experience and of feelings, ethics and culture – such a thing is superbly audacious.”

too – or it will lose its opportunity to foster a meta-reality (Bettencourt, 1999, p. 16). The modern poet is to be a surrealist according to Helder’s poeology and a pioneer aiming for absolute reality and its respective expressivity to which the modern poetic creation owes its loyalty (Bettencourt, 1999, p. 20). While detaching modernity within poetic creation in Bettencourt’s poetry – underlining the freedom to fight against the massive amount of everyday trivialities which literature welcomes too –, H. Helder recognizes singularity as the right path to reach fairness and cleverness of the human mind. (Bettencourt, 1999, p. 15) especially in the time-lapse between the 1st World War and Pessoa’s death (1935). Helder’s poetic creation was a true example of a profound individual imagining an act against good morals, personal edification, social institutions, and necessarily against on-demand literary writing. He, therefore, stands for a procedure owing to its identification to its internal demon: the single entity responsible for an endless debate caring for its originality:

O homem escreve um poema para se opôr à vida e ao mundo para negar o poder dos homens e libertar aquele “daemon” interior que, ao mesmo tempo que indica uma tensão criadora, manifesta igual tensão destruidora.” (Bettencourt, 1999, p. 15)²¹

“Poemas surdos” [Deaf Poems] displays poetic freedom that is typical of the modern avant-garde. Its singularity lies in the movement that every energy source generates through every creative word, which gathers a signification vortex so that the same feeling might arise within the receiver’s sensitivity. Such a poetic creation becomes evidence of a modern revolutionary act because:

Mas o movimento é qualidade da imaginação, quer dizer, atributo da individualidade (...) Revolucionar equivale a imaginar, a ser individual.” (Bettencourt, 1999, p. 13)²².

One might stay a little longer for the exuberant imagism of some of these hallucinating “Poemas Surdos” (1934-40) wherein voice is given to the movement with which the imagination challenges the recipient through unusual metaphors – and welcomed only by some of Bettencourt’s and the

21. “Man writes poems to oppose himself to life and the world and to deny men’s power and free that inner *daimon* who reveals a creative tension while showing a destructive one. Man writes poems to oppose himself to life and the world and to deny men’s power and free that inner *daimon* who reveals a creative tension while showing a destructive one.”

22. “But the movement is a quality of imagination, e.g., an attribute of individuality (...). To be revolutionary is the same as to imagine, as to be individual”

younger Helder's contemporaries - evolving surprising significations:

A Força do Olhar” [The strength of the look]:

(...) A força da fuga do olhar,/ a vossa moribunda
vibração,/ vem de encontro ao nosso peito,/ cai
violenta sobre a falsa luz, ataca violenta o falso
dia.(...) (Bettencourt, 1999, p. 141)²³

–“Asas” [Wings]:

[...] a cara dela/ que era uma sereia/ e que era
uma pantera a rebolar no chão/ aos rugidos
metálicos do amor/sob a forma de nuvens muito
ao longe ... [...] (Bettencourt, 1999, p. 145)²⁴

–“Espelho” [Mirror]- exemplifies that verve which attracts H. Helder so much, though being in prose -:

[...] ... E onde a tua boca, com beijos quentes
e perfeitos, era um caminho de águas e avencas,
aberto ao meio do fogo ... (Bettencourt, 1999,
p. 151)²⁵.

Let the unconscious roots be stressed, of all metaphors provoking the liberation of the verb pleading, not only for unattended modernity but also for the distancing from mainstream trends or the resilient ones' approach. Let it be stressed how much, during the thirties of the 20th Century, Bettencourt appeared as a revolutionary, iconoclast poet and fighter against the literary trend represented by *Presença* (1927-1940) which was considered to be the prodigal son of *Orpheu* (1915) (Bettencourt, 1999, p. 10) wherein “Opiário” [Opium] (1914) and “Ode Triunfal” [Triumphal Ode] (1914) “Ode Marítima” [Ode Maritime] (1914) were published. In 1958, E. Lourenço wrote “*Presença* ou a Contra-Revolução do Modernismo Português?” an article which was published in 1961 in Rio de Janeiro in *Revista do Livro - Órgão do Instituto Nacional do Livro* nrs 23-4. Therein, Lourenço points out the avant-garde mood shared by all poetic creators around *Orpheu* on account of “a irrupção frenética de ritmos, formas, objectos insólitos do mundo burguês em plena expansão ou explosão histórica” (Lourenço, 2016, p. 158)²⁶. Those were the poets who did not care about the

effects of a radical shock (Lourenço, 2016, p. 60) and who therefore rejected moralistic or ideological premises and fought for metaphysics within every poetic reality, with the help of full of trivial and unusual images – even vulgar ones too – by which impertinence they aimed at a new reality amidst the poetic creation wherein time and space levels referred themselves to a previous one, to those of reality (Lourenço, 2016, p. 146; 156). Neither was there room for any psychologism because the poetic reality was to be built upon a “nothingness experience,” which was to be given a form wherein unusual object-realities would be converted into a translation of a poetic dramatization. Such a poetry-in-progress would rely most on irony in order to expand such a universal experience so that the putative, subjective agony of the individual could turn the poem into the actual horizon into a decisive and contrastive unreality opposing itself to its contemporary Whole (Lourenço, 2016, p. 147-8; 151; 153). The poetic creation subject arises naturally from a previous Otherness voice (Lourenço, 2016, p. 150), revealing thereby a soul experience lived through by the modern individual translated by a speech-act moved by reducing to zero the epic reality (Lourenço, 2016, p. 151). Reality is, in this way, as unrealistic as it is non-figurative. It defies the recipient to feel the emotionality within such poetic dynamics, wherein unrealistic images are the adequate form that imagination achieves to reveal the full brilliance that the whole of the exteriority can provide. This is, instead, the sign that the poetic universe generates itself, not only by history, by language, or by the active unconscious but rather by our archetypal imagination that recreates it. (Lourenço, 2016, pp. 157-8). The literary, poetic creation barely summons forms apparently shared with the collectively and universally identifiable reality. Its discourse intelligibility depends on the vigor and subtlety with which imagination is worked out by irony (Monteiro, 1954, p. 29). Thus, association, allusion, and translation techniques help upgrade from physics to metaphysics, agreement to resilience, and from a peculiar to a sentient approach. A poetic creation within a modern plastic artwork always leaves its marks of emotionality, too (Rothko 2015, pp. 166-7). According to M. Rothko, the vision it exhibits summons up several features of: 1-our experience and memory (within any type of intelligible narrativity); 2- every type of *objectuality* condition of unusual object reality - used in every narrative; 3- all circumstances and especially of such through which modern poetic, plastic creation expresses a dense synthesis-through-abstraction. Both creator and recipient share the perception of forms configuring spaces, wherein an abstract language makes the spectator recall how many chromatic fields -

23. “The strength of the flight while looking/ by your dying vibration/ bumps against our chest/falls violently upon the false light/attacks violently the false day.”

24. “[...]/ Her face/who was a mermaid/And was a panther rolling over the floor/ by the sound of her metallic love roars/Under the shape of far distant clouds... [...]”

25. “[...] And where your mouth/with warm and perfect kisses, was a path to water and Venus maidenhair opened to the heart of fire...”

26. “the frenetic irruption of rhythm, form, and unusual objects common to the bourgeois world which was living its full extension and historical upheaval”

receiving more or less resilient reverberations within an *objectual* context – become receptors and a space of emotionality which will help the artistic upgrade from a peculiar beauty-under-representation into reality-inside-an-artwork (Rothko, 2015, pp. 171; 166; 170). Beauty-inside-an-artwork only aims to be communicated by a wonderment provided by reality-inside-an-artwork while translating profits obtained by an aesthetic praxis through abstraction and without any figurative representation (Monteiro, 1954, pp. 30-1). Such an abstract discourse provokes then a tacit praising-through-emotion - structuring the *objectuality* appears then and often as a chromatic staging, so that reality-in-the-artwork turns into an amplification -, reaching an infinite three-dimensional reality - and even by *trompe-l'oeil* technique too. The perspective may inversely occur from the artwork center to the reality core, just proving how the dialogue between the recipient and the creator will have then its origin within the daemon-level summoned as a unique and single decisive entity far from any simplistic approach launched on mimesis (Rothko, 2015, pp. 190-192). Instead, a beauty upgrading will have its moment derived from an ensemble effect detaching beauty in loco while activating sensations, feelings, and memories guided by fragments of an unintelligible reality. Singularities driven out from distortions and abstractions giving birth to an amplification of the artwork itself is a space for making such an unrealistic reality more accurate and more objectivist and never representing any ideal reality, helping to support this modernity paradigm. Emotionality comes only out of the experience, says Rothko (2015, pp. 192-4); it is not only to be deciphered unintelligibly but instead by fruition and always by the potentiation of the active imagination, step by step, association by association under the light of a capital obsession (Rothko, 2015, pp. 95-7). Moreover, never ceasing to assemble the potentiation of every artistic emotion and out of these only the ones which are indispensable to the representation of every contemporary aesthetic experience. Will not modern plastic poetic creation profoundly transform our present existence by using a potentiating interaction and also by using emerging and fracturing forms? Will it stop reinforcing the consciousness of the ephemeral nature and loyalty to the demiurge power to generate details, thus confirming the creator's goal seen as a liberation based on a new order born out of the modern chaos? (Lourenço, 2017, pp. 144; 148) Moreover, will such a performance not be the achievement of the principle of hope, an aspiration always present in every artwork shared by every modern artist introducing himself as a solitary/daring worker? Will either painter or poet, as examples of a modern creator, share the everyday genius that

will provoke the birth of every painting or poem resulting from a hard listening praxis while carrying out a *poiesis* transfiguring reality into mimetic unreality under the guise of emotionality (Rothko 2015, pp 175-6)? Therefore, will man and the world turn into the center and circle of the whole existence all over the earth and all over the universe? Will not Marc's *Blaues Pferd* (1911) immediately emerge as an example of such an expressivity even if apparently in a way under the recognizable representation of a horse, although a blue one? Is it not the vigor of such a disruption that is astonishingly modern: the birth of a newborn equine species, the outcome of a "plastic invention" (Rothko, 2015, p. 170)? Every plastic poetic creation gathers stimuli converting them into milestone symbols of the aesthetic modernity conscious enough of all types of freedom that it constantly raises (Tàpies, 1974, pp. 160-2). Its greatness will be validated by the "intrinsic truth" emerging out of the plastic, mimetic tradition and supported by a new spirituality already latent in Van Gogh's *Nuit étoilée* (1889) or Cézanne's *Montagne Saint-Victoire* (1885-1906) but the most of all in Kandinsky's *Lyrisches* (1913) or Marc's *Blaues Pferd* (1911). Sensations are not, of course, refused since they are as pertinent as a transmission shaft between concrete and abstract discourses. Simply because they raise feelings either of themselves or of the mystery lying in all the phenomena that they uncover while provoking the search for the form adequate to either express energy therein or the power drawn from the unconscious. Only after that can such sortilege energy be directed to the conscious layers of the psyche showing the magma of interiority and the chance to become exteriority, as A. Macke asserts in "*Die Masken*" in 1912 (Kandinsky, 1979, pp. 54-55). Such creation process is in itself the example of Kandinsky's *Prinzip der inneren Notwendigkeit* ["principle of the inner necessity"] (2009, p. 68) that guides every modern creator for it directs every soul's activity through color to a sensitive and efficient means by recovering from the objects the sortilege every aesthetic composition subtly presents whenever the surplus provided by the consciousness of the impossibility of absolute fidelity to a concrete reality or abstraction is surpassed, allowing the latter to impose itself naturally (Kandinsky, 1979, pp. 136-7). The plastic poetic creation underlines the potentiation of every sensibility caused by the vortex of colors and forms within plastic artwork, depicting and then giving birth to profound emotions and exemplifying how the soul is touched by a fair vibration as Kandinsky states in "*Über die Formfrage*" in 1912: such a work in progress is then driven by the abstract spirit which always shows the personality trademark of its creator (1979, pp. 154-5; 138)

because his praxis is nothing but the expression of a translation of a principle Kandinsky names Prinzip der inneren Notwendigkeit [principle of inner necessity]: according to Kandinsky, form has only to do with time and it is the external expression of an inner subject felt within the subject's soul (2009, pp. 68; 70) since form is always but the expression of a profound-interior meaning (1979, pp. 137; 139; 132) - and above all color is but the tool to stimulate the human soul wherein music will be composed to be offered to the recipient's soul (2009, pp. 68, 70). Through a specific form, such a creator makes visible the invisible: his secret vision, as Klee asserts (1985, pp. 31-34), would never represent the visible. The modern artist would, therefore, never give up a dynamic way of representing space. Refusing the representation of fixed and inflexible space, he will constantly search for the correct representation, thus transforming space but being loyal to the time factor wherein every character, every object, is on the move. Is not the recipient to move around the plastic artwork too, searching for the right features that will lead him to achieve a way to support his exegesis? Does modern plastic artwork not become a time-scenery, leaving behind its static status of inflexible and static stages? (Klee, 1985, pp. 36-9) From such an instant for both creator and recipient, they merely follow their respective paths – that is to say, their inner time. Artists feel far away from a logical, ethical, and rational level of understanding of their emotions. Now they are only concerned with the complex movement of such a dense and synthetic universe that every artist admires and analyses because he constantly searches for the proper expression to answer to original emotionality whose vision he was given and works hard to stimulate the recipients so that these can feel the equivalent emotional response within their awakened sensitivity. So by so doing, every artwork does not represent what the eye can see; every modern artist turns rather evident, seeable, visible what the eye fails to see (Klee, 1985, p. 34).

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Dystopian visions, populism and the return to empathy in António Ladeira's *Montanha Distante* (2020) and Nuno Gomes Garcia's *Zalature* (2020)

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ABSTRACT: Across the world, nationalism and populism are on the rise and wrap up debates about immigration, human rights, refugees, and moral responsibility. Whilst nationalism ascertains who is in and out of a community, populism relies on the emotional appeal that common people need to overcome the disinterested and corrupted elite. What is particularly disturbing is the tendency for nationalist and populist policies to introduce legislation that infringes human rights and curbs the independence of the judiciary and democratic institutions, pillars of the rule of law. In this regard, dystopian speculative fiction warns readers about the possible outcomes of the present world by extrapolating key features of populist right-wing rhetoric. This chapter examines two recent novels by Portuguese writers António Ladeira and Nuno Gomes Garcia to show how they operate within what Tom Moylan defined as a critical dystopian narrative. I argue that António Ladeira's *Montanha Distante* (2020) and Nuno Gomes Garcia's *Zalature* (2020) experiment the radical limits of the political and social practices of populist policies, showing their devastating result on the individual and his or her sense of community. I also contend that these dystopias offer a glimmer of hope by returning to the basic concept of empathy, the cornerstone of cohesive communities, able to face down the corrosive effect of cold and calculating populist policies.

Keywords: Critical dystopia, Intellect, Empathy, Populism, Contemporary Portuguese speculative fiction

This is the writer's work: observe what is lived with a microscope in his hand and a telescope in the other. Being in and out. Dig, dig, dig, as if the skin was the soul and, sometimes, it is. (Mongino, 2008)¹

In 2016, Portuguese writer and public prosecutor Julieta Monginho was a volunteer at a refugee camp on Chios, the fifth largest of the Greek islands, situated 8 km (5 miles) off the western coast of Turkey. Two years later, she published *Um muro a meio do caminho* [A wall halfway], a novel about the lives of Middle Eastern refugees who fled their countries, devastated by war and deprivation, and awaited at the camp on Chios to try to reach northern European countries. This is a novel that renders their lives in suspension, but it is mainly one that depicts the mental state, emotions, and inner struggles of a narrator who left her social bubble to become overwhelmed by her deep understanding of what is not

right in Europe and, particularly, of the actual effect of policies led by populist political leaders, such as Viktor Orbán and Donald Trump – just to mention two politicians briefly mentioned in Monginho's novel. They entail a brutal and dehumanizing process of othering those who desperately seek better living conditions by building walls to protect “us” from “them” while imposing strict systems of surveillance intended to make any of us passive actors and followers of the guidance of populist leaders, offering little or no resistance. While this novel offers the emotional response that emerges out of the interaction between two worlds, the western and familiar and the non-western and alien, the news bulletins have been crammed full with reports on North American and European foreign and home political decisions aimed at reinforcing governmental powers for the sake of building strong nations, depicting immigrants as potential security danger and inclusion and solidarity as hurdles to the constitution of secure nations. In addition, present-day European conservative governments and the ci-devant North American government headed by Trump have invested in populist measures and restorative nationalist narratives to bolster their leaders in such a way that praising them equates to preserving their strong nations. As political measures

1. Original: “Este é o trabalho do escritor: observar o que é vivido com um microscópio numa mão, um telescópio na outra. Estar dentro e fora. Escavar, escavar, escavar, como se a pele fosse a alma, e às vezes é”. In this chapter, translations are the author's unless otherwise mentioned.

are taken to secure leaders in their posts, the fundamental rights of the common people become gradually fraught in peril. Measures are introduced so that the common people, like boiling frogs, will not see their lives steadily manipulated and their freedom restrained.²

Hence, reading literature becomes critical; through reading, we learn how to empathize with a group of characters, and this is categorical and a necessary skill. Especially at times like this. This is a clear effect in the relation established between the narrator and the various refugees she interacted with and in the expected relation between Monginho's novel and her readers, but it may also be a lesson to learn from dystopian novels that imagine alternate communities ruled by populist and totalitarian governments that convey an illusory direct popular participation and what should be done about them. This essay examines *Montanha Distante* (2020) and *Zalature* (2021), two recent dystopian novels written by two Portuguese diaspora writers, António Ladeira and Nuno Gomes Garcia, respectively, to show how they operate within what Tom Moylan (2018) defined as a critical dystopian narrative.³ This essay argues that despite these novels constituting two critically dystopian visions of present-day populist rules whose popular support is nurtured through emotional manipulation, they also offer glimpses of hope when they show that empathy is the ultimate emotional response needed to overcome the effects of populism.

1 POPULIST RULE AND ESTHESIA

In his essay on the present-day popular support for various worldwide populist right-wing political leaders, Eric Landowski (2020) recognizes that this political ideology is powerfully seductive, especially in view of the negative impact of socio-economic conditions afflicting the West, and while taking a semiotic approach to its success, in particular as regards their leaders' dramatic quality, he identifies three major factors that account for it: exacerbation of particular negative feelings, such as xenophobia and racism, to encourage an emotional response from the audience; planned use of body language, including voice pitch, posture, and gestures; and his emotional appeal to the need of direct democracy, grounding it, however, upon the emotional interaction between the leader and the population, namely through social media. In

their analysis of the emotional roots of right-wing political populism, Mikko Salmela and Christian von Scheve (2017) identified repressed shame as another critical emotion to account for the support for right-wing populist leaders. This emotion emerges from intersubjective perceptions of threat and vulnerability experienced by those who have witnessed the downfalls of others and fear their own. It is the sense of being a "modernization loser" that generates repressed shame. What is striking about these two essays is that studies concur on the fact that the success of popular support for right-wing political leaders fundamentally lies on the populist leaders' ability to create emotions. To sum up, a successful right-wing political rhetoric is grounded on esthesia, a term I draw on Landowski's work, to describe the exacerbated incitement of feelings to generate an emotional response.⁴

Montanha Distante and *Zalature* are two dystopian novels that delve into the realms of esthesia-based populist political rule to show that it ultimately leads to an impossible society whose prevailing emotions generated by fear and vulnerability hamper societal cohesion. Moreover, transparency of policymaking, a cherished democratic quality that inculcates in people the sense of belonging, is easily manipulated by populist leaders to constrain people's individual freedom. *Montanha Distante* is a first-person narrative that tells the story of a talkative middle-aged taxi driver who takes a peculiarly quiet young man from Vila Ideal [Ideal Town] to Vila Real [Real Town], a six-hour ride used by the taxi driver to tell the story of his life as a man who, in his youth, moved from Vila Real to Vila Ideal. These are two towns in a larger country ruled by Dear Leader. *Zalature* tells the story of the people of Ínsula, an independent island situated in the Mediterranean Sea, who live in an apparently strong direct democracy but whose political measures decided in nationwide referenda gradually close this society to the world to the point of making the existence of this island impracticable. As dystopian novels they are, *Montanha Distante* and *Zalature* tell stories of alternate communities living in imaginary time references: while the former does not offer any time references at all, the latter describes events within a four-year time span ending in 2034. The strong resemblance between the description of governments in these narratives and some of present-day western politics is enough to make us shiver and wonder where our dystopian times will lead us in the near future.

2. The boiling frog fable is generally offered as a metaphor cautioning people to be aware of even gradual change lest they suffer undesirable consequences.

3. António Ladeira lives in Lubbock, Texas, and teaches Portuguese language and literature at Texas Tech University, and Nuno Gomes Garcia lives in Paris and is an editorial consultant and promoter of Portuguese language and literature in the French media.

4. Another relevant academic project is led by researchers of the center for the History of Emotions, at Max Planck Institute, on emotional politics. It is entitled *Emotional Citizens: Love, Loyalty, and Trust in Politics*. Available at <https://www.mpib-berlin.mpg.de/research/research-centers/history-of-emotions/citizenship-and-nationbuilding/emotional-citizens>.

An ingrained neoliberal culture of capitalism is infused into the societies depicted in both novels. In *Montanha Distante*, the narrator's family is far more concerned with saving production costs in their automobile repair shop than with providing good service. In *Zalatlune*, the Luddite movement sabotages manufacturing plants because robot work has led thousands to live below the poverty line and commit suicide, while the government's economic strategy is grounded upon radical extractivism that makes Ínsula an unbalanced ecosystem. The collapse of the wall under construction signals its fatal consequences. The plot is the outcome of the action developed by national governments, and the literary strategies used in both novels suggest readers that they are in some way doomed to end: whereas the first and the last chapter of *Montanha Distante* correspond to the towns of departure and arrival of the taxi ride, thus, playing with the idea of a long ride from idealism towards reality, the idea of looming cataclysm pervades *Zalatlune's* first chapters of each of the three parts that compose this novel (*O fim do começo* [the end of the beginning]; *O começo do fim* [the beginning of the end]; and *O fim do fim* [the end of the end]). Another common aspect of both novels is their catastrophic ending: the narrative of *Montanha Distante* ends with a car crash, whilst *Zalatlune* ends with the submersion of the entire island Ínsula. In the second part of this essay, I explore this aspect to tie it in with my discussion on these novels as critical dystopias.

In Ladeira's novel, the long ride through the memories of the middle-aged taxi driver shows that everything in this country – epitomized in the description of the daily routine in the two only towns where events unfold in this narrative – is organized to strengthen the legitimacy of Dear Leader (also known as the Supreme Guide) and, consequently, that of a nation. The subtle use of the term “kingdom” to refer to the nation conveys the extent to which it is Dear Leader is the figure around which the concept of nation is legitimized. Dear Leader's birthday is the National Day, and festivities follow a pre-defined script that includes praying to the glory of the Leader and a choreography of dances describing the country's history from its foundation to the present (including the dance of the kingdom's farmers, the dance of the kingdom's fishers and the dance of the mysterious woods, a dance tribute to the kingdom's conquerors) and, thus, legitimize the Leader's action as the guardian of the nation:

This was used to symbolize the regenerating force of the Founders, the world's reorganization (post-kingdom) following chaos's disorganization (pre-kingdom), thanks to the good

fortune that meant counting on a Leader's protection. (Ladeira 2020, p. 49-50)⁵

People live in closed communities, and those unmarried live on campuses where they are also employed. Behavioral rules are strict and militarized: men are separated from women; they all dress uniforms on festive days (brown uniforms in Vila Ideal and blue uniforms in Vila Real), and coordinators thoroughly supervise their conduct. It is not difficult to compare the description of some of these rules with those of fascist governments in the past. Dating has to be approved of by a council whose members evaluate the match quality of the couple who also have to sign an official pre-matrimonial contract. The narrative conveys this system's eugenic purposes to guarantee healthy offspring, and there are patriotic programs directed by exemplary married couples who prepare those engaged for their future life in common. Dear Leader speaks to his people standing on a high tower so that everyone can see him from the ground while guards inspect the crowd to prevent any kind of menace against the Leader's life. People under suspicion of not possessing patriotic fervor are discreetly probed and, eventually, interrogated by special agents during a process that counts on the collaboration of informants among the population. The police interrogation corresponds to the “violent phase of the process” (Ladeira, 2020, p. 154).

The plot of Garcia's novel is centered on the entanglements of the power structure, represented by Tomazzo Bonavita, Prime Minister (PM), and Lamberto Azzopardi, the Opposition Leader, particularly with Ínsula's economic interests. The Azzopardi family has roots tracing to the establishment of this nation and built a fortune upon the control of the island's natural resources (oil and natural gas), a fact that also gives them prominence in politics. Their ancient lineage makes Lamberto the ideal candidate of the Conservative Party who loses the municipal elections in 2029 to Bonavita, the Progressive Party leader. His background has no connections with local politics, but due to his remarkable communicative skills, Bonavita gets a massive landslide victory in the legislative elections against Azzopardi in 2031. In this year, these parties have their names changed into National League and Patriotic Front, respectively, and these decisions are announced as part of a strategy to put an end to “the corrupted parliamentary system” and “remove the old parties from power” (Garcia, 2021, p. 73). Ínsula's politics gradually evolves towards direct democracy, founded on successive referenda and protectionist measures announced as

5. Original: “Servia isto para simbolizar a força regeneradora dos Fundadores, a reorganização do mundo (pós-Reino) após a desorganização do caos (pré-Reino), graças à boa fortuna de se poder contar com a protecção de um Líder.”

essential for preserving the island and its inhabitants. The island is inexplicably spared to a devastating worldwide pandemic that leads to a massive incoming flow of refugees. The unprecedented refugee emergency exerts pressure on the island's resources, and the government decides to build a wall to protect Ínsula inhabitants from them. This wall features the phrase "The Foreigner is the Virus" painted on it. As with all other governmental decisions, the decision to build the wall is taken upon a popular referendum. Ínsula's government follows the model of direct democracy. However, the narrative also shows us that decisions are actually taken within the political arena, and the electorate is manipulated to vote as the politicians intend them to. Transparency is also manipulated: while the government members are 24-hour filmed and shown live on a popular mobile application, there are nooks beyond the reach of camera lenses where plans are taken in the hide so that voters will not witness real political maneuvers. After all,

only a fool would believe it was possible to govern a country, even within direct democracy, leaving the curtains wide open twenty-four hours a day (Garcia 2021, p. 139)⁶

Direct democracy is a form of democracy where bias determines the way decisions are taken, giving voters the inebriating illusion that they have real unlimited power in policymaking:

The Professor of Ethics at the capital university contended that there were specific rights, some called them human and others universal, not liable of being decided upon referenda. The Prime Minister and the leader of the opposition labeled the idea of that Professor of Ethics "anti-democratic nonsense." [...] The government held that first referendum, and overwhelmingly voters decided that there is nothing in society that cannot be decided upon a referendum. That Professor went into exile following the result of the second referendum that reintroduced capital punishment on the island. (pp. 24-25)⁷

6. Original: "Só um tolinho poderia acreditar ser possível governar um país, mesmo no contexto de uma democracia referendária, deixando as cortinas escancaradas vinte e quatro horas por dia."

7. Original: "O professor de Ética na universidade da capital considerava existirem certos direitos, aos quais uns chamavam humanos e outros universais, não passíveis de ser sujeitos a voto popular. O primeiro ministro e o próprio líder da oposição rotularam como um "despautério antidemocrático" essa ideia do professor de Ética. [...] O Governo avançou com esse primeiro referendo e os eleitores decidiram, por maioria avassaladora, não existir na sociedade nada que não fosse passível de ser referendado. O tal professor exilou-se após o resultado do segundo referendo, que reinstaurou a pena de morte na ilha."

Montanha Distante and *Zalature* convey the extent to which populist autocracy relies upon the government's skillful creation and management of various emotions to instill popular support to its policies. Whereas *Montanha Distante* is centered on the role these emotions play in the building of citizenship, *Zalature* focuses on the extent to which the process of othering those who were not born on Ínsula is also key to building citizenship.

In Ladeira's novel, exemplary citizenship is the sole life objective and ethics of all inhabitants. Self-esteem only exists if it is combined with wholehearted patriotism, and personal and professional accomplishments count insofar as they are patriotic. Thus, Dear Leader's best wishes to his citizens are for them to achieve professional-patriotic and family-patriotic success (Ladeira 2020, p. 43). Solidarity, mutual respect, and collaboration become secondary values if patriotism is in the balance. Patriotism and exemplary citizenship have no connection to the concept of nation. In fact, the name of the country Vila Real and Vila Ideal belong to is never mentioned. Dear Leader's overwhelming presence makes it totally irrelevant as he is at one time the recipient and certifier of the inhabitants' right values. Anecdotal details convey the absurdity of autocracy: billboards featuring the Leader and his family at the towns' gates or an industry of 3-D car stickers with the leader's image to give the impression that he follows drivers all the way. The nation's history is told to justify the Leader's position, and he, as the patriarch of the nation, exists to guide his "flock" (Ladeira 2020, p. 40). Thus, he is the center of all extreme emotions (fervor, gratefulness, joy), the collective experiences in awe and, above all, theatrically: "And so, like good actors, we pretended the emotions (joy and relief) we actually felt" (Ladeira 2020, p. 50).⁸ The narrative gives subtle indications about the extent to which the collective memory is appropriated to benefit the nationwide image of Leader. When the narrator decides to have a moment alone with the girl of his dreams and escapes surveillance to penetrate the rooms adjacent to the ballroom where festivities to honor the Leader take place, he finds out they are ramshackle and dirty replicates of the decorated ballroom: walls were painted so many times it became impossible to guess their original color whereas the furniture has layers of dust and is mostly broken. At the same time, in the ballroom, choreography and visual and sound effects of hypothetical dangers involving menacing flora and fauna are shown to convey Dear Leader as the ultimate nation savior. Thus, a parallel between worn-out replicates and layers of accumulated collective memory emerges to show the extent

8. Original: "E assim, como todos os bons actores, fingimos as emoções (alegria e alívio) que efectivamente sentíamos."

to which truth and fantasy become entangled in the political discourse that is legitimized in the collective memory to produce an emotional response.

In *Zalatlune*, each chapter has an epigraph, and most epigraphs mention the referenda submitted that account for a gradual process of political extremism. Protectionist measures are intertwined with fear and the basic survival instinct: the fear of getting the disease and the fear of not being able to eke out a living catalyze a nationwide rejection of a globalized world and the presence of foreigners in their territory; the wall, for example, is seen as a job opportunity for the many who are jobless at the same time it is announced as a measure that preserves the island's self-identity. Widespread nationalism reinforces the idea of separation between Ínsula's civilization from alien barbarism. The idea of civilization is grounded upon Ínsula's racial supremacy that entails privileging physical traits, such as complexion tone, that distinguish Ínsula natives from foreigners. Miscegenation is, therefore, strongly discouraged inasmuch as foreign physical traits are despised. When, as a child, Lamberto Azzopardi disappears with his Dalmatian dog mysteriously, and both return inexplicably, the boy claiming he had been to Zalatlune, his dark light complexion and light brown hair are white, and his dog has lost his black-colored spots. The dog is immediately put to death, and vitiligo is the disease publicly announced to account for the boy's change; at the same time, his memories are erased through therapy to ensure that he will not be exposed to popular judgment and, thus, have the future of the family jeopardized. In addition, the story of the life of Kamaria Adrachi illustrates that although racial supremacy is not particular to Ínsula, it has fatal consequences. Adrachi is a refugee from the former Grácil Republic, in the continent, who has to eke out a living from prostitution when she ends up living on a refugee camp on Ínsula. The daughter of the Minister for Education, Adrachi belongs to the privileged minority who held colonial power over part of the adjacent territory primarily populated by the Robust ethnic group. Science was used to prove that racial segregation colonial power was justified when scientific expeditions showed that *Gráceismand Robusts* actually constituted two distinct racial groups, having miscegenation been forbidden. They live in designated areas separated by a wall. Grácil colonialism ends in bloodshed with the Robust liberation movement seizing power. As a refugee and sole survivor of the Grácil population, Adrachi experiences the misfortunes of a life as the exotic prostitute on a refugee camp. Furthermore, on an official visit to Ínsula, a delegation of foreign representatives is discreetly teased by Ínsula officials because of their accent. Othring entails depicting foreigners as historical aliens, "invaders," and "barbarians" (Garcia 2021, p. 59, 137). Refugee camps are equated to landfills, and migrant refugees who

make their way to Ínsula beaches by boat are killed because beaches need to be clean from their unwanted presence and, ultimately, Ínsula inhabitants need to have their identity secured (Garcia 2021, p. 90, 114). As disposable workforce, refugees – particularly those highly qualified – are used to build the wall not without being publicly humiliated when they are treated as prisoners forced to community service:

Under the awning, aligned in two straight lines, arms extended along the body and watched by a handful of guards armed with gunshots, the thirty-two guest-assistant workers wore uniform with the national color, dark purple representing the blood poured out in the struggles against invaders of all centuries during more than one thousand years. (Garcia 2021, p. 119)⁹

As in *Montanha Distante*, authority is strongly associated with masculine leadership. In political disputes that gradually rely on nationalist arguments, both PM Bonavita and Leader of the Opposition Azzopardi compete in rhetorical skills. In this regard, Bonavita stands out from early youth: "While talking with Tommaso, a fat man would feel himself slim, a mad person would believe he was sane, a dying man would expect to live forever" (Garcia 2021, p. 148).¹⁰ Azzopardi also shows exemplary talents, including that of using his body language appropriately to enhance his impassionate public speeches: "He dropped his shoulders and looked at the audience with a sad gaze, concluding with a sentence that became a national monument: - And that is the major evidence of our ignominy" (Garcia 2021, p. 143).¹¹ Hence when both organize a joint press conference to announce the building of the wall, they are widely cheered in what is, after all, "theatrical performance" and "a flawless strategy" (Garcia 2021, p. 135).

In both novels, the populist rhetoric used by autocratic leaders is effective in establishing wide consensus. At the same time, arguments are used as part of a political strategy to enforce discipline and, thus, avoid dissensus. Observing and being observed is

9. Original: "Debaixo do toldo, alinhados em duas retas, de braços estendidos ao longo do corpo e vigiados por um punhado de guardas armados de metralhadoras, os trinta e dois trabalhadores-convidados assistentes envergavam uniformes com a cor nacional, uma púrpura carregada, representando o sangue derramado durante mais de mil anos nas lutas contra os invasores de todos os séculos."

10. Original: "Ao conversar com Tommaso, um gordo sentir-se-ia esbelto, um louco julgar-se-ia lúcido, um moribundo esperaria viver para sempre [...]"

11. Original: "Deixou cair os ombros e lançou um olhar triste à plateia, concluindo com uma frase que se tornou em monumento nacional: E é essa a prova maior da nossa ignomínia."

critical for this strategy that places the leader as the center of all attention. In *Montanha Distante*, a panoptic structure is built to ensure that Dear Leader is seen and heard by everybody while the audience is severely filmed and watched to ensure that the leader's life is not threatened. The act of speaking from a high tower satirizes what is at stake in populist leadership: the leader's words and image are the centers of attention that force the audience to position their bodies properly – and painfully – to follow him. The leader is obsessed with persuasion and in this art, making himself listened and seen is what matters. In *Zalature*, the panopticon structure is also at the service of the leader's skills of persuasion. Transparency is used as part of a rhetoric that uses technology as a resource to enhance discipline among citizens. It is a theatrical performance that *per se* does not make politics an honest art. In his *Discipline & Punish*, Foucault contends that the panopticon is central in a project of docility, which he traced its origin in the 18th century, aims at making the human body “manipulated, shaped, trained, which obeys, responds, becomes skillful and increases its forces” (Foucault 1995, p. 136). Ladeira's and Garcia's dystopian narratives convey that panoptic structures ensure that citizens are docile bodies, manipulated to obey, and in this process, the leaders' words shape their emotions so that citizens respond automatically, as flocks they become in a planned scheme.

Discipline based on panoptic surveillance sucks out the individual's inner life and self-esteem. In both narratives, this disturbance starts in the family unit. There are no happy families. In *Montanha Distante*, it is his family's oppressive influence that motivates the narrator to move from Vila Real to Vila Ideal in the pursuit of freedom:

A man free from *having to be* something but able – when traveling – to be what he would see and imagine. He wanted to be someone who would not have a sole obligation, not even that of being really a traveler. (Ladeira 2020, p. 24, author's italics)¹²

And it is also pre-determinism that makes him break with the blonde girl, turn down any engagements, but it is the inevitability inherent to the fact that in order to survive, he has to belong to the system that makes him ultimately accept that he will have to marry the daughter of the director of the campus. From a rebel to a submitted member of the community, the narrator gradually accumulates

frustration and low self-esteem, summed up in his self-image as a coward, a recurrent trope throughout the narrative. In *Zalature*, PM Bonavita is both the foster son and the sexual partner of Lola Bonavita; the Azzopardi family craves for keeping appearances even if it entails curbing a potential happy childhood of the Leader of Opposition; and Pietra Grixti, the Director of the Geology Department, grew into a family of three mothers who forbade any male influence during her upbringing. In addition, in both narratives, a network of informants and agents instills widespread feelings of oppression and fear.

Characters are solitary and have no close friends. In *Montanha Distante*, enjoyment means superficial moments of fun with colleagues at pubs, and self-pleasure is an experience of frustration and melancholy because “living should be saving energy, time and money; never waste energy, time and money in that delicious way” (Ladeira 2020, p. 91). In *Zalature*, sexual relations are mostly violence, lust, revenge, and pity sex. They constitute ways of exerting power, manipulating, and surviving. For example, Robust troops rape Adrachi and her mother to show their power over the Gráceis; Adrachi uses sex to survive on Ínsula; Virtu Bertu, the agent, uses the local brothel to explore his sexual fantasies and, thus, relieve his personal frustrations; Pietra Grixti believes men are disposable and uses them for her self-pleasure only. Drawing again on Foucault's trope, in these narratives, characters grow as frustrated docile bodies whose utility is explored through discipline and punishment in autocracy.

2 CRITICAL DYSTOPIA AND EMPATHY

Tom Moylan defines critical dystopias as those texts that “in the midst of their pessimistic forays, they refuse to allow the utopian tendency to be overshadowed by its anti-utopian nemesis” and “adopt a militant stance that is informed and empowered by a utopian horizon that appears in the text – or at least shimmers just beyond its pages” (2018, p. 196). The emergence of the critical dystopia as a new fictional development that interrogates both society and dystopia in “ways that resemble the approach critical utopias took toward the utopian tradition” (Moylan 2018, p. 188) was first elaborated by Lyman Tower Sargent (1994).¹³ Moylan contends that in view of the present-day historical conjuncture, critical dystopias “refunction a larger, more totalizing critique of the political economy itself” and “inscribe a space for a new form of political opposition” and “find

12. Original: “um homem livre de *ter de ser* o que quer que fosse, mas com a possibilidade – ao viajar – de poder ser o que fosse vendo e imaginando. Tencionava ser alguém que não tivesse uma única obrigação, sem sequer a de ser verdadeiramente um viajante.”

13. While Lyman Tower Sargent has coined the term “critical dystopia” and Moylan has used it, it is worth mentioning that, for example, Bülent Somay (1984) has used the term “open-ended utopia” to refer to the same phenomenon.

ways to transform” the present system (2018, p. 190). *Montanha Distante* and *Zalatune* share the fact that their endings do not convey definite closure; plots are unfolded to the point of a no return, but although both convey, in different ways, that the present is unsustainable, they also indicate that there might be a future if we read the signs.

In *Montanha Distante*, the car crash that ends the 13th chapter, the last of this narrative, is a replicate of another that nearly victimizes the narrator in the 10th chapter, when a black car crashes against the narrator's car, and he loses consciousness. As the narrator recovers, he experiences a quasi-moment of rebirth:

I felt inside a kind of uterus. I was sure I was protected from something indefinite, not imagining what that might be. I felt neither pain nor anguish for what might be happening. As if I was not entirely conscious of what was happening; or, on the contrary, I was more conscious than ever of everything that was happening. (Ladeira 2020, p. 123)¹⁴

The idea of rebirth is present throughout the description of the consequences of the car crash: the narrator is forced to adopt a fetal position in order to be removed from the damaged car, and later, he feels like he has “rejuvenated” and “gained some of the wisdom usually experienced at old age” (Ladeira 2020, p. 127). The description of the first accident constitutes a turning point in the narrator's life, who decides to put an end to his unhappy marriage, and also another in the plot as readers learn that the narrator is actually an agent with the assigned mission to take the quiet passenger to Vila Real for a police quiz as he has been indicted of lack of patriotism. The decision to help the passenger flee from his prosecutors is generated out of the narrator's experience of feelings of love and compassion for the passenger's situation – his “first friend” (Ladeira 2020, p. 159) – that makes him also feel love for his family and for all the persons he came across up to that point in his life and finds out that he is not actually a coward. The last scene is a furious getaway of both men from Vila Real towards distant mountains along the slippery road that causes their car to skid. As a replicate of the first car accident, the last crash is significantly a potential ultimate second chance to refuse to continue living in a totalitarian society and to live in the pursuit of other ideals, metaphorized in the image of the “distant mountain” – the mountain whose peak pierces the clouds and looks like a donut – that may

be reachable by experiencing empathy. Empathy happens when subjects become available to each other. Landowski calls this relation “adjustment,” and it is the reverse of what happens in populist right-wing rhetoric whose emphasis is fundamentally placed on radical esthesia to manipulate the target (Landowski 2020, p. 24). In adjustment-based interaction, reciprocity enhances friendship ideals.

In *Zalatune*, the mysterious disappearance of thousands to Zalatune. While a child Lamberto Azzopardi tells his father about his trip to Zalatune, he explains that this is a distant planet whose resources are dying out and, thus, the majority of the population is doomed to disappear. He adds that a minority looks on Earth as the place they can inhabit, and he was ordered to return to Ínsula to make arrangements for those coming from Zalatune. As the narrative proceeds and there is news about a growing number of people mysteriously missing leaving a note that they went to Zalatune, a few characters, such as Lola Bonavita, Kamaria Adrachi, Pietra Grixti, and Lamberto Azzopardi, also disappear. Before these characters go missing, they all feel emotional empathy towards other characters: Lola disappears when she worries about Grixti, Adrachi disappears after being tortured by Bertu, who wants Grixti for himself; Grixti goes missing after shooting Virtu as revenge for what he did to Adrachi; and Lamberto goes missing a second time after he is resolved to tell the population about Zalatune and, thus “save us all” (p. 169). Unlike these characters, Tommaso Bonavita is unable to save himself, even when he believes he knows how to go to Zalatune. Nevertheless, just before he drowns as Ínsula is submerged and thousands of those missing persons emerge from the sea, ready to return, he has a glimpse of his past errors:

He regretted the vanity that made him do the second [Evil] much and do the first very little [Good] and deplored the hate trees he had planted everywhere on Ínsula and regretted he had dehumanized thousands of human beings he had expelled from that island sentenced to submersion. (p. 278)¹⁵

Moylan interprets neo-liberalism as an anti-utopian project intended to exterminate and delegitimize utopia. Hence, the critical dystopian narrative is a way to re-enter political discourse, offering glimpses of hope to the political activism of oppositionists:

14. Original: “Sentia-me dentro de uma espécie de útero. Tinha a certeza de estar protegido por alguma coisa indefinida, sem imaginar o que pudesse ser. Não sentia dor alguma nem me sentia angustiado pelo que se estava a acontecer. Como se não estivesse inteiramente consciente do que se passava; ou como se, pelo contrário, estivesse mais consciente do que nunca de tudo o que se passava.”

15. Original: “Lamentou a vaidade que o fizera praticar muito o segundo [Mal] e pouco o primeiro [Bem], e deplorou as árvores do ódio que havia semeado um pouco por toda a Ínsula, e penitenciou-se por transformar em animais os milhares de seres humanos que expulsou daquela ilha condenada ao afundamento.”

Thus, they teach their readers not only about the world around them but also about the open-ended ways in which texts such as the ones in front of their eyes can both elucidate that world and help to develop the critical capacity of people to know, challenge, and change those aspects of it that deny or inhibit the further emancipation of humanity. (2018, p. 199).

The representation of the disastrous end of both narratives is very close to that of the Apocalypse.¹⁶ There is an ultimate revelation made clear to a particular individual – in *Montanha Distante*, it is the storyteller, whereas, in *Zalatlune*, Prime Minister Bonavita is the one whom truth is made clear – and revelation emerges along with feelings of remorse and penance. Nevertheless, and despite the final chaos, both narratives do not convey that nothing can be done to change the course of events. The glimpse of hope is metaphorically present in both titles: *Montanha Distante* [Distant Mountain] and *Zalatlune*. These two images emerge as literary tropes that convey places, at the same time distant but pursuable, that constitute alternatives to the present through empathy as the creative and regenerating emotional response that undermines the populist right-wing rhetoric grounded upon negative emotions, such as xenophobia and racial supremacy, and restores self-esteem, contributing to better and more balanced societies in a globalized world.

Returning to the beginning of this chapter, Julieta Monginho's *Um muro no meio do caminho* is an exercise of empathy that deconstructs the arguments used by right-wing populism against the flows of immigration that attempt to cross the Mediterranean Sea and the Eastern European borders to arrive in Europe. *Montanha Distante* and *Zalatlune* show that empathy is the emotional response that rescues the humanity in us when societies succumb to populist rhetoric manipulation by the few that pursue their maintenance in power. Populist rhetoric forces individuals to think about

themselves ahead of the community; empathy restores the sense of community and share. Finally, it is worth mention that António Ladeira and Nuno Gomes Garcia write as Portuguese diaspora writers living in countries where the populist right-wing rhetoric has reached considerable proportions with devastating consequences to the many immigrants who endure hard times to settle and restart their lives as well as to all those who go against the populist right-wing rhetoric. The fact that Portugal is not immune to this rhetoric should make us reflect on its radical consequences and focus on our innate humanity.

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16. The Christian belief in divine superiority emerges as an alternative to the imposed totalitarian belief in Dear Leader in *Montanha Distante*. When the car crashes, the narrator shouts, “Oh, my God,” on both occasions, and his exclamation, he explains, is a protest against His non-existence and a way to demand His existence (Ladeira 2020, p.122).

The impact of mentality and emotions in the creation of the magazine *Claridade*

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ABSTRACT: This chapter addresses the mentality and the emotions of the various individuals who created the magazine *Claridade* (1936). It considers how the creative power of the magazine's founders and contributors was based on these two elements (mentality and emotions) and their observations of the Cape Verdean reality. We will consider two types of emotions – positive and negative – as described by Caruso Samel and references to other authors who approach this topic from a spiritual point of view, mainly that of Christian Rationalism, a philosophy that incorporates scientific elements).

We will also show how human beings can form their ideas by exerting their own free will and reach the areas where Total, Absolute, and Universal Intelligence are. This concept is the founding principle of the magazine and the basis of the viewpoints of authors such as Onésimo Silveira. In short, this study confirms that the creation of the magazine *Claridade* was based on the two aforementioned types of emotions and its authors' penchant for observation. These facts, influenced by free will, made this group feel that it was imperative to divulge the nature of the Cape Verde archipelago and Cape Verdean literature.

Keywords: Cape Verde, Literature, *Claridade*, Mentality, Emotions

This chapter focuses on reflections of the mind and emotions in creating the magazine *Claridade*, first published in Cape Verde in March of 1936 by the authors Baltasar Lopes, Jorge Barbosa, and Manuel Lopes. We intend to show that its founders and contributors had a talent for creativity resulting from thoughts and emotions triggered by the observation of the Cape Verdean reality. These concepts – mentality and emotions – cannot be produced in “a factory, like organized matter” (Almeida & Almeida, 1995, p. 185). According to these two authors, to the extent that the sensitivity of human beings develops, ideas, in the form of intuitions, start reaching humanity as a whole through those who are more dedicated to studying and research (1995, p. 185).

Following the line of thought of Nilton Almeida and Célia Almeida, we would say that to create, it is necessary to have dedication to the development of intelligence, and consequently, of the mind (1995, p. 185). The development of that intelligence, through research and study, is an attribute of human beings, for having reached the stage of making use of the obligation to arbitrate their thoughts and their actions (1995, p. 185).

Through the exercise of his free will, human beings can form their ideas and reach the areas where Total, Absolute, and Universal intelligence are. Once these ideas are assembled, it is possible to

illuminate the creative mind, resulting in knowledge and the conception or genesis of something considered innovative (Almeida & Almeida, 1995). Caruso Samel sees free will as a capacity of the spirit, that is, an attribute of the spirit. It is the power to act with full freedom, driven by the will and controlled by reasoning (2006, p. 258).

According to Matos, Christian Rationalism is a spiritual philosophy that focuses on the evolution of the spirit and explains what one is and does through reason and reasoning (2015, p. 13).

Founded in Brazil in 1910 and originally known as Rational and Scientific (Christian) Spirituality, Christian Rationalism rapidly caught on in the Cape Verdean island of S. Vicente. The movement was pioneered by Augusto Messias de Burgos, (better known as Maninho de Burgos), in 1911, Canon António Manuel da Costa Teixeira in 1912, and Enrique Baptista Morazzo em 1919.¹ Morazzo was particularly noteworthy because he led the Christian Rationalism movement on the island mentioned above between 1919 and 1965 and because he was the first to formalize this philosophy in the country. After an initial attempt in 1923 to get its statutes

1. The latter was a relative of the Cape Verdean writer Yolanda Morazzo, granddaughter of the writer José Lopes da Silva.

approved by the governor of Cabo Verde failed, Henrique Morazzo presented a second request in June of 1927, which included the following objectives for the association:

3rd - work for the good of the homeland and of humanity [...];

4th – create a reading room where the members can become acquainted with matters related to individual and collective improvement (apud Vasconcelos, 2012, p. 154).²

These objectives were the basis for formalizing the association and led many merchants and government officials to frequent the space and read its books. João Vasconcelos refers to names such as:

Alfredo Brito, Lourenço Tavares de Almeida (secretary of the Treasury and a native of the island of Brava), Amâncio dos Santos (a young clerk) and Alberto Atilio Leite (a high school teacher and deputy procurator of the Republic in the district of São Vicente) (Vasconcelos, 2012, p. 161).

Christian Rationalism affected some of the young intellectuals of that period, as demonstrated by an excerpt from a poem entitled “Espiritismo” (Spiritism) by Januário Leite and dedicated to Canon Antônio Manuel da Costa Texeira:

Bright like light, simple as truth, /comforting like skeptic hope, /science and religion, Spirituality advances, /transforming the world and age-old humanity! (2005, p. 125).

Being a philosophy that entails many lines of research, Christian Rationalism maintains that the spirit imprints on the mind its energy. Like sound and light, the thought process also travels in vibratory waves or by forms registered in a sea of fluid matter that fills the universe and can become known to all from the moment it is emitted. The whole evolutionary process is recorded in this area of fluid matter, which results in the impartiality of alterations in the truth of spiritual life (Matos, 2015, p. 46).

Therefore, thoughts precede actions (Matos, 2015). In this perspective and motivated by emotions, the authors founded the magazine *Claridade* and introduced literary modernity to Cape Verde. Caruso Samel suggests two groups of emotions or feelings – positive and negative. In his perception, positive emotions include: joy, altruism, friendship, love, (good) behavior, kindness, trustworthiness, courage, creativity, curiosity, dignity, enthusiasm, happiness, candor, gratitude, harmony, simplicity, *saudade* (homesickness), serenity, tolerance,

triumph, etc. Negative emotions include: anxiety, self-pity, greed, jealousy, compulsiveness, despair, selfishness, envy, slander, fear, perversity, resentment, and vanity (Samel, 2005).

In this sense, we would say that the creativity of the founders of *Claridade* was based on positive emotions and feelings. They were, however, familiar with negative emotions, especially after they were the target of what some scholars of Cape Verdean literature regarded as unfair criticism. These emotions are of major importance in certain creative processes, especially among the so-called *Claridosos* (founders of the magazine *Claridade*). For it is in the awareness of the process of formation of conscious and unconscious causes generating these emotions, of passions and their consequences in people’s daily lives, that man encounters certain difficulties, and, as mentioned above, in his desire to solve them, Caruso Samel claims the following:

It is not about evaluating and measuring things and their forms with methodologies and suitable instruments, as if measuring the distance between two points or weighing a certain product, but rather it is about testing and evaluating feelings that we experience individually in different forms and degrees (Samel, 2005, p. 14).

In this sense, we will articulate the internal states of mind of several Cape Verdean authors with the environment, with nature, and with the manifestation of their ideas. Furthermore, we will identify the impact of the emotions mentioned above in their writing process, which consolidated their engagement with the insular reality. As we know, these emotions stem from the mental reactions of human beings, as an objection to a context instigated by other individuals, altering their emotional state pleasantly or negatively (Samel, 2005). In effect, in the words of Caruso Samel:

When feelings or emotions reach a high level of intensity and obscure lucidity and reason, we deal with passions, such as love, in their purely materialistic conception (2005, p. 15).

However, in the case of the founders of *Claridade*, we see a group of young people who, driven by a sense of attachment to their homeland, decided to take action. They would get together for lunch and dinner to discuss local issues, and at a certain moment, they felt the need to publish a journal because according to Baltasar Lopes:

Of course, we were in strong disagreement with the way things were with the dictatorship in Portugal, and consequently here [Cape Verde] as well. It was an opposition journal, and Jaime de Figueiredo soon proposed writing the Manifesto; he began drafting it mentally, using the

2. All translations are the author’s except when otherwise stated.

following slogan: We will not compromise!
[...] (Lopes in Laban, 1992, p. 25).

The magazine's name originated from a group in Buenos Aires, Argentina, called *Claridad*, and from the novel *Le feu* by Henri Barbusse, who led the *Clarté* group in France (Lopes in Laban, 1992). Jorge Barbosa's book *Arquipélago* (published in 1935), along with António Pedro's book *Diário* (published in 1929), played a vital role in the magazine's conception because they raised awareness about the Cape Verdean reality. The magazine's founders were not only cognizant of the reality of Cape Verde but were also witnesses of the calamitous historical movements and events that were taking place, namely the rise of Nazism, the fascism promoted by the Estado Novo in Portugal and its colonies, and the civil war in Spain (Luz, 2013). Thus, from his observation of the life of Cape Verdeans, Baltasar Lopes wrote:

From here, from our lesser observation post, which was the city of Mindelo, we members of the Group were perfectly conscious of the general situation. But, on the other hand, we were in a clear position of confrontation regarding the underlying political orientation of the administration of what was at that time the colony of Cape Verde, with its dependence on importation and imitation and ignored or violated the most elementary principles that rule the life of men and citizens and safeguard individuals' freedom (Lopes in Ferreira, 1986, p. XIII).

The writings of these young men were also influenced by two droughts that decimated many Cape Verdeans in the early 1920s and 1930s, by outbreaks of influenza and bubonic plague, by the deterioration of Porto Grande de S. Vicente, and by the curtailment of Cape Verdean emigration to the United States (França, 1962). According to Amílcar Cabral:

The Poets began walking hand in hand with the People, with their feet firmly on the ground. Cape Verde is not the idyllic Hesperian garden, but the Archipelago and the Environment where trees die of thirst and men of hunger [...] and hope never dies [...]. The voice of the Poet is now that of the land itself, of the People, of the Cape Verdean reality" (Cabral, 1952, p. 7).

The magazine *Claridade* managed to differentiate Cape Verdean from Portuguese literature and promulgate the voice of the Cape Verdeans, who were emotionally disillusioned with life in the islands. As soon as the magazine appeared, a national outcry was heard clearly in narratives, stories, excerpts of novels, poems, and essays that portrayed what the islanders thought was most genuine. This was how

these young authors of *Claridade* addressed the fundamental problems of the country and the living conditions of its people.

Awareness of that reality arose from research, surveys, and notes about day-to-day life in the different islands. Sharing a mentality of observation and wanting to disclose local emotional inclinations by addressing issues such as emigration, sadness, drought, hunger, this generation of writers advocated authentic writing, breaking with some of the standard models used until then (Luz, 2013). These authors introduced:

Essay-writing that promoted the man of the islands [...] and real representation and expression through fiction and poetry. Their objectives were obviously to find the manner and the voice of the creole universe (Ferreira, 1985, p. 233).

The magazine *Claridade* was influenced by the Cape Verdean circumstances and by current literary scenes in other countries, namely Portugal and Brazil. From Brazil there was contact with prominent authors such as Manuel Bandeira, Ribeiro Couto and Gilberto Freyre; from Portugal, several authors went to Cape Verde between 1920 and early 1930 (José Osório de Oliveira, Augusto Casimiro and António Pedro). The publication of the magazine *Presença* was also in evidence at that time (Luz, 2013).

Brazilian influence was very present in *Claridade* in texts with references to that country, and to acclaimed Brazilian authors, namely Manuel Bandeira, as evidenced in Jorge Barbosa's poem "Carta para Manuel Bandeira" (published in the fourth number of *Claridade*):

I would knock meekly / at the door of your solitary poet's apartments / there in the Avenida Beira – Mar do Rio de Janeiro. // [...] // Then would return quietly to my island on the other side of the Atlantic / [...] / (Barbosa, 1947, p. 25).

We also find these kinds of references in the poem "Saudade no Rio de Janeiro" by Osvaldo Alcântara published in the eighth edition of the magazine mentioned above:

Road, unending asphalt, / my country far away, / where your old voice / in memoriam of Nhã Isabel? [...] // [...] // Road, asphalt, / purity violated beneath the assassin wheels, / You came hidden in my suitcase / for Christ to consecrate you / in the hierocratic altitude of the Corcovado (Alcântara, 1958, p. 1).

Worth noting is the reference made to the Brazilian anthropologist, social psychologist, medical psychologist, and professor Artur Ramos in a note

entitled “Professor Artur Ramos,” published in the 7th number of *Claridade* upon his death in Paris in October of 1949:

We have received news of Professor Artur Ramos’ death in Paris. [...] This magazine owes a debt of gratitude to Artur Ramos, on the one hand, for the results of his research, which despite being oriented to Brazil, are pertinent, given the similar colonial past with this archipelago; on the other hand, his kind support and encouragement of *Claridade’s* endeavor in a small “desert” country like ours, where there aren’t enough “officials” to carry out group work so often used in research and study of our beloved Brazilian scientist (*Claridade*, 1949, p. 52).

Claridade promulgated a form of writing that upheld Cape Verdeanity, reflecting and opining on local questions, from the creole language (now the Cape Verdean language) to daily problems, hopes, and customs. We find essays about the creole/Cape Verdean language, observations about the social characteristics of the islands (for example, “Tomada de Vista,” by Manuel Lopes, in No. 1, pp. 5-6, and No. 5, pp. 1-10); and several studies about ethnography and folklore (for example, “Tabanca,” in No. 6, pp. 14-18 and “Cantigas de Ana Procópio” by Félix Monteiro, in No. 9, pp. 15-23). Poetry written in the Cape Verdean language (such as “Lantuna & 2 Motivos de Finançaõ” – Lantuna e dois Motivos de Finançaõ –, No. 6, pp. 14-18; “Galo Bedjo” – Galo Velho –; and “Bida’l Pobre” – Vida de Pobre – by Gabriel Mariano, in No. 6, p. 35) was a remonstrance against the Portuguese colonial regime, which had prohibited its use, as demonstrated in the aforementioned poem “Bida’l Pobre” (Vida de Pobre), by Gabriel Mariano: “Bida’l pobre / é uma bida tristi / bida’l pobre / é bida’l grilo / [...] (Life of the poor / is a sad life / life of the poor / is the life of a cricket (Mariano, 1948, p. 35).

Also in Portuguese, *Claridade* published poems such as “Luar”, by Jorge Barbosa, in No. 7, p. 42; “Vozes” by Manuel Lopes, No. 7, p., stories such as “Um galo que cantou na baía” by Manuel Lopes, in No. 2, pp. 2-3 and 9; “Dois contos populares da Ilha de Santo Antão by Baltasar Lopes, in No. 7, pp. 30-32, excerpts from novels such as “Bíbia, excerto do romance Chiquinho” by Baltasar Lopes, in No. 1, pp. 2-3 and 7, and narratives such as “Noite de vento” by António Aurélio Gonçalves, in No. 8, pp. 40-54). These poems addressed topics such as love for the homeland, solitude, nostalgia, anxiety, evasion, hope, celebrations and local folktales, songs, and emigration.

Various waves of emigration over the centuries led Cape Verdeans to establish roots in various parts

of the world, particularly in the United States, where they arrived aboard whaling ships. They yearned for a better life and to leave behind the toil and hardships, as illustrated in Jorge Barbosa’s poem “Poema” (later entitled “Irmão,” published in the *Claridade* magazine No.1:

You crossed / seas / in the adventure of whaling /
in those voyages to America // [...] // On land /
in these poor islands of ours/you are the man of
the hoe [...]” (Barbosa, 1936, p. 10)

The emigration mentioned above to the United States was of crucial importance for the betterment of many Cape Verdeans’ lives, as Henrique Teixeira de Sousa mentions in his essay “The social structure of the Island of Fogo in 1940”, published in the *Claridade* magazine No. 5:

The emigration, while it lasted, greatly benefited the common people. Cisterns were purchased with the dollars earned in America, and cattle and a working mule were acquired (Sousa, 1947, p. 44).

However, while some Cape Verdeans left their country searching for a better life, some remained and toiled in the maritime sector. See the “Poem about those who remained” by Manuel Lopes, published in the *Claridade* magazine No. 3: “[...] // That your brother who stayed / [...] toiled by the edge of the sea” (Lopes, 1937, p. 1).

This diaspora was frequently addressed by the “Claridosos” and interpreted as an emotional ambiguity of **wanting to leave/having to remain, and wanting to remain/having to leave** because many Cape Verdeans wanted to emigrate, but for different reasons ended up staying in the country. In contrast, others, who wished to remain, ended up leaving. See the poem “Terra – Longe” by Pedro Corsino de Azevedo published in *Claridade* No. 4:

Here, lost, faraway / from the realities I only
dreamed of, / weary from the fever of the over-
seas, / I imagine / my mother rocking me, /me,
small, irate from the sleep that wouldn’t come. //
[...] / Oh mother who cradled me! / Oh, my dual
longing! (Azevedo, 1947, p.12).

It should be noted that many Cape Verdean emigrants died during the voyage, as mentioned in “Poema do rapaz torpeado” by Osvaldo Alcântara, a pseudonym used by Baltasar Lopes, published in *Claridade* No. 6: “[...] / And the torpedoe boy told his story. // Once a young boy died/because he wanted to see the world. / [...] (Alcântara, 1948, p. 1).

In Onésimo Silveira’s article entitled *Consciencialização da literatura cabo-verdiana* (1963) (believed by many scholars of Cape Verdean literature actually

to have been written by Manuel Duarte), we find the following observation:

One of the dominant notes in Cape Verdean literature created by the [Claridoso] Movement was “evasionism,” both in poetry and novel-writing. [...]. The drama of evasion was meant to be the intellectual version of the problem of the islands’ emigration. While it was one of the main subjects addressed by the movement, partly implicit, these men did not manage to take and maintain the necessary positions to condemn this problem in positive terms in the literary plane or practical action. Focusing on the tragedy of evasion, the duality of wanting to leave rather than remain or wanting to leave and having to leave – according to the “evasiologist” philosophy of each one – eventually arbitrarily simplified this complex problem and provided a stereotyped image of the Cape Verdean man, consciously abdicating from searching for the psychological and social roots of the emigration issue (Silveira, 1963, p. 10).

Authors such as Baltasar Lopes and Elsa Rodrigues dos Santos manifested their disagreement with Onésimo Silveira’s stance. Baltasar Lopes argued that the magazine *Claridade*:

Revealed that Cape Verde had a distinctive and autonomous character, which deserved specific treatment and attention. [...]. May the expression be revealed to me, but this is “speaking of Color” (Lopes, in Ferreira 1986, p. XIV).

In this same attitude of discontent, Elsa Rodrigues dos Santos also argued that Onésimo Silveira’s error was “wanting to see the 1930s in the light of the 1960s, forgetting that the *Claridosos* produced the most important Cape Verdean literary works [...]” (Santos, 1989, p. 48).

This approach, exemplified by Caruso Samel, can be considered part of the negative emotional plane, although it also includes elements of positive emotions. This is because, while on the one hand, we can see that there are certain negative emotional manifestations and a lack of familiarity with the “Claridosos” project, on the other hand, we find positive emotions such as courage, attitude, confidence, candor, and even audacity, demonstrating that emotions, as well as the mind, are the basis of creativity. Furthermore, this emotional side, which can be seen as positive emotions, is also present in the defiant attitude of the two authors in relation to Onésimo Silveira’s essay.

Thus, with *Claridade*, we find a literary magazine founded in Cape Verde by young authors who wisely exerted their free will, bringing together mentality and emotions to reveal the reality of the Cape Verde islands and who encouraged emancipation from the

exogenous literature that had long prevailed in the country.

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Part V
Social sciences



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Lyrical Poetry (sung) congregating the community as a generator of collective emotions

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ABSTRACT: We propose to identify periods when the community felt threatened as a collective entity and when lyric poetry, musicalized and interpreted, assumed a congregational role of the Nation. First, by assuming themselves as a referent of generations, in the struggle for freedom, with *Trova do Vento Que Passa*, and later with the *Pedra Filosofal* as generators of collective emotion, they became anthems for those opposing dictatorship. In this way, these themes became among the best known and most famous Portuguese music when they acquired perpetuity only comparable to *Grândola, Vila Morena*. The password of April 25, 1974, conquered the collective imagination as a symbol of democracy, which brought the Portuguese together during the difficult period of the Troika, chanting it collectively in the name of national pride, as collective insubordination before national sovereignty at risk. The Portuguese gathered around poetry as a national reference, something comparable only to the figure of Camões in other historical moments.

Keywords: Lyric poetry, Congregate, Community, Hymns, Emotion

1 INTRODUCTION

As a creative act, Lyrical Poetry sung when reaching a wide range of citizens in the community has assumed an aggregating role in that community throughout challenging periods throughout history.

When singed, the characteristic that poetry acquires leads it to express the collective emotion, either around a liberating will or preserving the Nation itself as a collective. It happened in different latitudes, be it in Europe occupied in World War II, in Latin America, in Francoist Spain, in the face of undemocratic regimes.

Historically, in the Portuguese case, Camões was the inspiring reference in several historical moments where the Nation knew how to congregate. In the 60s and 70s of the 20th century, sung poems became iconic against the dictatorship and foundation of the democratic regime.

We refer to *Trova do Vento que Passa* (1963), poem by Manuel Alegre, sung and recorded on the homonymous album by Adriano Correia de Oliveira (1963) as well as *Pedra Filosofal*, poem by António Gedeão, music and interpreted by Manuel Freire and above all *Grândola, Vila Morena*, by José Afonso, written in 1964, which ten years later became the symbol of the 25th of April. In the second decade of the 21st century, somewhat similar to that of the end of the 19th century, Portuguese people, facing the partial loss of sovereignty under the humiliating

neoliberal political conditions imposed by Brussels, chanted *Grândola* to oppose the humiliation of the troika. Methodologically, we used published works, our own, and other authors to contextualize our proposal. Some of these works resulted from crossing bibliographic and oral sources. However, this reading is innovative because although it has been part of our reflections, we have never presented it orally or through communication.

2 LUÍS DE CAMÕES CONGREGATOR OF NATIONAL PRIDE

Luís Vaz de Camões and his poetry were a unifying symbol of the pride of the humiliated nation. In the 16th and 17th centuries, it happened in the 60 years of the Philippine rule (1580/1640). When Portuguese patriots were exiled in Paris at the beginning of the 19th century, faced with the loss of effective sovereignty vis-à-vis the English troops and the impunity, they enjoyed the idea to launch a monument to Camões, which, however, is not coming to fruition.

In 1880, when the poet passed away June 10 on June 10, they had significant popular participation. The following decade is a tremendous political turmoil as the British Ultimatum came to Portugal (January 11, 1890), has as answer a patriotic poem written by Henrique Lopes de Mendonça. This poem, *A Portuguesa*, played by Alfredo Keill, became a national anthem in

1911. Although they will only become concrete 20 years later, the Ultimatum consequences dictate the beginning of the final count of the Portuguese monarchy. A year later, on January 31, 1891, the Republican Revolt of Porto, although defeated, confirms that the fall of the monarchy would be irreversible.

Camões will have functioned as the figure in which the community sees itself to reaffirm its wounded pride in the face of the humiliation suffered by this country, traditionally allied with Portugal.

3 TROVA DO VENTO QUE PASSA: THE POEM THAT BECAME THE STUDENT ANTHEM AND THE OPPOSITION

Although similar situations were found in other periods, it is mainly in the last decade of the dictatorship of the *Estado Novo* that we find situations that we will now address. The first arises in the student struggles that took the name “Academic Crisis of 62”. This crisis has as its antecedents, in 1956, a failed attempt by the *Estado Novo* to remove autonomy from academic associations. As a result, the Law Decree 40 900, by the then minister of education Leite Pinto, ends up being revoked, before a common front of students (situationists, oppositionists), academic authorities, local and national. Two years later, in the presidential elections, the “Delgado phenomenon” will shake the foundations of the Salazar regime in such a way that these elections are no longer direct. However, its consequences are such that they dictate the «End of regime principle» by allowing disaffection to the student’s regime. These are family children destined to be senior officials of the same regime but who, in many cases, end up in the opposition ranks. Unusual participation in associative life at the Academy of Coimbra was made possible with the victory of the «List of the Left» in 1961, consolidated in 1962, in Coimbra, influencing the other academies. Especially in Lisbon, where the regime’s reaction will lead to the referred crisis, as in Coimbra. However, in 1961 the Colonial War had started (in Guinea, Angola, and Mozambique). At the same time, a musical renovation was taking place in Coimbra in *Canção de Coimbra*, initially led by Fernando Machado Soares. However, in a short time, José Afonso will bring about a musical and poetic revolution in such an overwhelming way that his matrix is still felt today. In the same year, José Afonso abandons the Coimbra guitar accompaniment, replacing it with the classical guitar, initiating a decisive musical renewal for Portuguese music. Coimbra watches the “meeting of music and poetry, poem and voice. A new time (...) when everything becomes an instrument of struggle and intervention (...) the will to change created new ethics and needed a unique aesthetic” (Raposo, 2014, p. 190).

As the poet Manuel Alegre refers, this poet, with José Afonso, Adriano Correia de Oliveira and Luís Cília, is one of the forerunners of the intervention singers movement that then emerged in Coimbra.

Intervention Song, of subversion, was not born in a programmed way, but because there was a meeting of people who connect to poetry and music. (Raposo, 2014, 191).

After being a student leader, Manuel Alegre, forced to leave for the colonial war, is arrested by *PIDE* in Luanda due to subversive activities, returns to Coimbra under house arrest. Persecuted systematically by the political police, *PIDE*, one night a friend accompanies him home, Adriano Correia de Oliveira, when Alegre in anger says: “Even in the saddest night/In times of bondage/There is always someone who resists/There is always someone who says no. “

Adriano says premonitorily: “Even if there are no more lines, these lines will last forever” (Raposo, 2007, p. 67).

Trova do Vento que Passa was born, for which António Portugal created unique music, causing, like the poem, a profound emotion for the recipient.

We realized that we were facing a unique thing. (...) That something magical had happened. The marriage of music and poetry (Raposo, 2007, p. 67).

Days later, at the freshman reception party, at the faculty of Medicine, in Lisbon, the student crowd reacts in delirium, being sung several times by Adriano and José Afonso (Raposo, 2007, p. 67). It became a hymn and one of the most popular themes of all time in Portuguese music. It is also the most popular theme of all the musical work of Adriano Correia de Oliveira, who records it in the homonymous EP later that year (Raposo, 2007, p. 62).

Finished example of musical and poetic creation that generates collective emotion.

Trova do Vento Que Passa marks the interventional beginning of Adriano Correia de Oliveira’s unique and diverse musical and poetic work, which ended with his premature death at the age of 40 in 1982.

Despite his early disappearance, he sang almost 40 poets, where Alegre represents almost 1/3 of the themes and many popular roots (Raposo, 2007, p. 102).

Singer and Intervention par excellence, Adriano Correia de Oliveira, led this cultural, aesthetic, and political struggle in the struggle for freedom, against censorship, *PIDE*, and the dictatorship, to denounce the colonial war (Raposo, 2020, p. 151).

The Intervention Song also stars José Afonso with Menino’s themes, *Bairro Negro* and *Os Vampiros* in Dr. José Afonso in Autumn Ballads. In contrast, Luís Cília, the first intervention singer in exile, in a different

context, makes a frontal denunciation of colonial war performing recitals throughout Europe and recording in 1964 Portugal - Angola: Lutte Chants. (Raposo, 2007, p. 64).

Trova do Vento Que Passa will assume this role, whether due to the poem or the surrounding way it is musicalized, it generates an atmosphere of great emotion that quickly becomes a hymn of university students and later of all opposition to the regime. Personifies the meeting of music and poetry that constitutes the true Portuguese aesthetic vanguard (Raposo, 2014, p. 191).

As Alegre mentions, who mentions a testimony of an American, who at a university, attends a fado session in Coimbra, when they sing the *Trova do Vento Que Passa*, he realizes the emotion that took hold of those present, who sing standing and crying; he thought he was before the national anthem (Raposo, 2007, p. 70).

Although with other stanzas and music by Alain Oulman, the *Trova do Vento Que Passa* gave rise to a homonymous album by Amália Rodrigues, which won an international award in Italy and will have had an essential meaning in Amália's career (Raposo, 2007, p. 70).

4 PEDRA FILOSOFAL AS THE DREAM RULES LIFE

Throughout the 1960s, in addition to this initial group of precursors to the intervention song, other interpreters and singers emerged. This informal movement goes beyond the academic environment to the cultural and recreational collectives, with great acceptance from increasingly broad layers, particularly in urban and industrial areas.

A third phase is characterized by his participation in Zip-Zip, the most important television program.

In the context of the Marcelist opening, the *Zip-Zip* tv program, although with many contradictions, lasted for a little over six months but quickly acquired great popularity, with hundreds of thousands of viewers.

Dealing with current issues, human aspects, and new musical formulas contributes to disseminating new authors and performers, enabling the Intervention Corner to conquer a national projection.

Although Zeca Afonso, whom the political police had arrested in 1971 and 1973, is forbidden to participate due to the upsurge in censorship that is now felt, many other intervention singers participate.

Manuel Freire, who presented *Pedra Filosofal*, a theme musicalized from a poem by António Gedeão, immediately became a great success.

Due to the theme's popularity, Manuel Freire was invited to return a few weeks later, at the close of the program cycle. After the recording - made live with the assistance, at Villaret Theatre, abroad, a band

goes up Avenida Fontes Pereira de Melo playing the *Pedra Filosofal*, which everyone - singer, audience, organization - sings in the chorus.

Pedra Filosofal thus acquires singular popularity as one of the most sung and well-known themes of Portuguese music. However, curiously, censorship did not consider it subversive, although metaphorically, it was. Thus entered the collective imagination. Recorded in 1970 won the prizes *Casa da Imprensa* and *Pozal Domingues*.

5 GRÂNDOLA, VILA MORENA: THE SYMBOL OF THE 25TH OF APRIL, A HYMN OF A NATION

Throughout May 17, 1964, José Afonso, accompanied by Rui Pato, performed Ballads and Songs of Coimbra in the second part of the show with Carlos Paredes in Guitar Variations. As mentioned in the program of refined musical taste, the 52nd anniversary of the *Sociedade Musical Fraternidade Operária Grandolense*.

Zeca Afonso was invited by Hélder Costa, his friend, and former companion from *Pra-quis-tão* academic republic of Coimbra.

Impressed by the collectivity: (...) with a library of evident revolutionary outlines (...) that already revealed a political conscience and maturity (Ribeiro, 1994, p. 36).

José Afonso, days later, sends a letter of thanks with a set of poems that begins:

"*Grândola, Vila Morena*/Land of fraternity/The people are the ones who order the most/Within you, O city." The *Grândola, Vila Morena* was born.

On his most iconic record and one of the most decisive ever in Portuguese music, *Cantigas do Maio*, published in the fall of 1971, recorded at Strawberry Studios, in the castle of Herouville, on the outskirts of Paris. It has arrangements and musical direction by José Mário Branco. In May 1972, at the invitation of his Galician friend Benedicto García Villar, in an individual recital in Santiago de Compostela, he was touched, and before a large audience, he sang this theme for the first time in public (Raposo, 2014, p. 48).

Less than a month before the Revolution of the 25th of April, on March 29, 1974, *Casa da Imprensa* organized the 1st Encounter of the Portuguese Song to deliver the 1973 prizes. In the most critical concert hall in the country at that time, in Lisbon, the *Coliseu dos Recreios* brought together for the first time on the same stage about a dozen singers, interpreters, sayers, and groups from Intervention Song. It was realized after being banned several times, with many forbidden themes and others with partially cut letters. *Grândola, Vila Morena* was not

banned. Zeca Afonso sang only three stanzas, but the audience, where dozens of soldiers who will participate on the 25th of April were, sang standing up. Thus, the password song for the Revolution was chosen (Raposo, 2020, p. 155).

Grândola, Vila Morena will, irreversibly, mark the collective imagination of the Portuguese.

José Jorge Letria was part of a commission of journalists who supported the coup, writing the later read texts during the night of the Revolution. Letria mentions that the songs ideologically signaled the left coup, namely *Grândola*, as the language in all the communication process was prudent, almost neutral (Raposo, 2020, p. 156).

6 GRÂNDOLA, A SYMBOL OF NATIONAL PRIDE BEFORE THE TROIKA

In the eighties second half years, it was politically incorrect to sing *Grândola*, in a context of regression from the revolutionary period, a period that, however, in some regions of the country, namely in the South, still extended until the end of the seventies and even the beginning of eighty.

However, with the subsequent dissemination of José Afonso's brilliant figure and work, *Grândola, Vila Morena* recovered in the majority of the Portuguese the importance that had conquered in the imagination of the Portuguese and not only in the People of the Left as the historian and commentator José Pacheco Pereira dubbed it. Thus, in the second decade of the 21st century, similar to other periods in our history, as was the case at the end of the 19th century, when citizens congregated under the figure of Luís de Camões, also in contemporary times the Portuguese in general renewed the pride of the humiliated motherland singing *Grândola*.

Between 2011 and the end of 2014, Portugal was under the scope of the Troika program - designation attributed to the team composed of the International Monetary Fund, the European Central Bank, and the European Commission.

In the face of European impositions in a markedly neoliberal context, we witness an economic, social, and political course that results in a partial and effective loss of national sovereignty.

They responded, facing almost fawning governments who were too compliant with the rule and the severe impositions of the crisis on the Portuguese.

The reaction was due to the strict economic impositions and the humiliation of how the financial bureaucrats treated the oldest European nation. The population found the anthem in *Grândola* to rescue national pride, the identity of the humiliated community. It often happened that government officials were interrupted at official ceremonies by groups of citizens who chanted *Grândola* and were later

removed by police forces. There were cases in which the rulers themselves also dealt with *Grândola* influenced by the general environment, perhaps afraid of being considered traitors. In the Assembly of the Republic itself, citizens were often removed by the police singing the *Grândola*. In shows, cultural gatherings, in which we watched, people at the end instinctively chanted *Grândola* with tears in their eyes, in an atmosphere of overwhelming collective emotion.

The Portuguese thus found in *Grândola, Vila Morena* the aggregating link, functioning as the anthem in defense of the homeland, of wounded pride, of democracy itself implanted on April 25, 1974. Chanting *Grândola* collectively became an act of collective insubordination and national pride in defense of freedom, democracy, and national sovereignty. The rulers colluding with foreign neoliberal impositions ended up seeing their social base of support crumbling, ending up losing the elections to the Socialist Party, which inaugurated a way of governing with parliamentary influence, of the remaining parliamentary left, unprecedented in Portugal and an example followed in Mediterranean Europe, especially in Spain.

7 FINAL NOTES

Grândola, as it is commonly called, sung publicly and collectively by citizens over the 47 years of democracy since 1974, although its general acceptance has varied, is probably always motivating collective emotion, whether or not in the most straightforward collective celebration.

During the Troika period, with the relative loss of sovereignty due to European impositions, the Portuguese found *Grândola, Vila Morena*, the anthem of identity in the face of humiliations from abroad, in defense of national pride. Thus, we find some similarities among 19th-century experiences, where Portuguese people congregate under the figure of Camões in the face of the monarchy that capitulated in British impositions.

On the other hand, in another difficult period of recent history, amid the colonial war, the meeting of music and poetry would have enabled aesthetic vanguardism, a creative act reflected in the collective reaction. Poems that, sung became hymns, either by students or by vast sections of the population, later popularized as just *Grândola, Vila Morena* and is.

We refer to the *Trova do Vento Que Passa and Pedra Filosofal*, paradigmatic references that brought together, through its solid emotional tendency, both poem, and music, many citizens for the struggle for Freedom.

They have become some of the most publicized themes of Portuguese music ever, in which creation and emotion collectively mark the community.

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Mind the food, brief essay on emotions and creativeness during COVID 19 times

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ABSTRACT: This article reflects on the result of the group work, carried out within the Enogastronomy curricular unit's scope, within the Hotel Management Course of ISEC Lisboa, presented by 45 students on the traditional cuisine of the municipality of Oleiros in Portugal, during the second confinement of COVID 19. This reflection focuses on how most choices made for the driven analysis, directed by the stimuli caused by the informative reading of texts and images during students' research, are done. The distance learning process produced exciting results in terms of the knowledge acquired by online sharing and recreations of the possible narratives of promotional discourse in the areas under analysis by each working group. We found that students' creativity in the production of itineraries boosted by emotions, which guides us to deepen our research, in the near future, by applying an emotions scale to the ones that appreciate the imagery conveyed about traditional gastronomy. This application can enhance the safeguarding of food and gastronomy as a territory's heritage by measuring information that can contribute to knowledge based on authentic learning, despite using technologies in its dissemination.

Keywords: Creativeness, Emotions, Food, Technology, Tourism

1 INTRODUCTION

Driven by the interest in understanding communication in the tourism system, we focused our attention on the results of the presentations a group of students made in the scope of Enogastronomy classes concerning the analysis of the authentic cuisine of the Portuguese region of Pinhal. There was the involvement of forty-five students, in which due to the pandemic circumstances of confinement, there was not the possibility of direct research with fieldwork.

Their research, made by a gathering of information online vehiculated, results in personalized itineraries in the territory associated with the areas within the Pinhal region to study traditional cuisine.

These choices reflected each of the working groups' members, food cravings, and hedonistic desires, motivated mainly by the imagery found and texts and social data extractions.

The results were an array of modulated expectations concerning external information of the municipality of Oleiros. The choice made in this municipality was primarily due to the original technique of confection of the goatling.

The motivation to a possible experience in those territories leads to a future reflection on the

consumer's categorization of satisfaction in the pre-consumption moments (Medina, B. et al. 1.2020) and its emotionally driven choices.

Anticipating experiences with the fundamental knowledge to bring good memories of places to visit creates good results in promoting healthy habits, including food and environmental sustainability. These premises seem to us of importance in promotional food-based tourism, knowing that the continuum of cognition flexibilities behaviors related to food can prevent excesses of habits (Higgs, S., 2016) and contribute in an educational way to territorial marketing.

This paper presents a theoretical reflection based on reviewed literature on real knowledge-based experiences related to food. In these, wellbeing can associate with memories and andragogical learning, done in an equilibrium of the gathered information (Pereira Neto. Ana,2020).

As social sciences researchers, one of our concerns is to attain the performances in the perceived quality of heritage-based authenticity (Pereira Neto, Ana 2019), where we cannot forget ontological issues inherent to an ecology based on ethics and emotions.

It is not a matter of referring here to the cognitive premises, attained by Psychology, related to the desire to eat or to the satisfaction of satiety (Moore,

2015), but rather the desire to want to know and learn from the experience and to understand the emotion that precedes the hedonism of the future experience in the places previously presented.

The appliance of a scale of emotions (Runa & Miranda, 2015) in choosing the places to visit, earnest by 2.0 informative means, can bring a new direction in the communication process, in the medium term, by the continuation of this research.

It will be objective to evaluate how the combination and expression, by the students, of different emotional experiences (with a greater correlation with the positive ones and less with the negative ones), contribute to promoting more creatively and authentically the tourist itineraries.

The Emotional Wellbeing and Emotional Malaise Scales (Rebollo et al., 2008), (Table 1 and Table 2), validated for the Portuguese population (Runa & Miranda, 2015), evaluates the positive emotions (20 items) and the Emotional Malaise, the negative emotions (20 items), in a total of 40 items, using a 4-point Likert scale (0 = never, 1 = occasionally, 2 = on quite a few occasions and 3 = all the time).

Table 1. Positive emotions.

Positive emotions	0	1	2	3
Satisfaction				
Enthusiasm				
Pride				
Optimism				
Competence				
Joy				
Relief				
Serenity				
Euphoria				
Security				
Peacefulness				
Perseverance				
Accompaniment				
Trust				
Guidance				
Attraction				
Recognition				
Gratefulness				
Power				
Stimulus				

2 TOWARDS AN ECOLOGY BASED ON EMOTIONS AND ETHICS

Underlying the question of creativity, we find questions of pure ethical order, given to the logic that exercises dominion over our social reality. This logic of technical rationality reducing everything to

Table 2. Negative emotions.

Negative emotions	0	1	2	3
Annoyance				
Frustration				
Upset				
Boredom				
Guilt				
Sadness				
Insecurity				
Regret				
Loneliness				
Anguish/Anxiety				
Despair				
Stress/tiredness				
Apathy/unwillingness				
Mistrust				
Shame				
Repugnance/loathing				
Disorientation				
Rage/anger				
Powerlessness				
Tension/concern				

achieve objectives based on civilizational orientations reduced to a capitalist nature is a dominant trend in the world's current socio-economic context, despite the growing environmental awareness of integrated and sustainable development.

It is essential to reflect on a new ontology or even on a new Anthropology that can bring human beings closer to their identity, intended as the proper awareness of sustainability.

Thus, it is a question of reflecting and acting on an Ethics proposed for a long time by some philosophical currents, namely the existentialist one (Sartre, 1976), which can give meaning to the indefiniteness of direction human being has in his ecological identity context. This way, justice concepts can make proper sense within the sphere of a balanced society (Guia, J., 2021).

Real emotions that bring happiness closer to the natural and tangible primacy should not be sought but felt and known. When we meet the other to get to know them better, the primacy of being entirely associated with our knowledge must be understood.

The emotions felt with the palate and the smell through the gastronomic experience can gain more meaning through its conscious interpretation; for this to be possible, it is necessary to immerse in knowledge, production techniques, preparation, and presentation.

For future professionals in the hotel and tourism industry, knowing how to increase gain fundamental importance and, to get closer to this new reality, we must seek in the sharing of knowledge the

information that makes sense in the narrative interpretation of those who produce it. Only then will it make sense to recreate these narratives through the emotionality of those interested in them and want to apply them in their hedonistic universe, both for satisfaction through their personal or professional development, based on knowing how to be and knowing how to do.

However, suppose on the one hand it is intended that the tourism professional performs his duties in an innovative and entrepreneurial way; on the other hand, his conduct and his relationship with consumers/customers via the Web should be guided by ethical principles and values. Among them, transparency, honesty, and respect for the other's otherness.

Web 2.0 and social networks' social reality affect how millions of customers interact with the world. Thus, the information must be managed and shared suitably and responsibly to win both the customer and the company.

3 TOURISM NARRATIVES BASED ON THE PICTURESQUE OF FOOD SYSTEMS AND EMOTIONS

In the absence of sensory experiences related to food, due to the confinement period in which field research was unfeasible, the narrative about the originality of traditional cuisine in Oleiros, inserted in the Pinhal region, built by our students' working groups was motivated by the descriptions of the cooking techniques and essentially the rural landscape, associated with the locals.

The municipality of Oleiros, highlighted on social networks for making *estonado* goatling, obtained most of the students' choices due to the description of the meat preparation technique before its preparation. The word *estonado*, with the meaning of plucked fur, unknown in the lexicon of our students' regular use, motivated the curiosity for the picturesque and fed the imaginary by discovering another type of heritage associated with the humanized landscape.

Inserted in the Portuguese Schist Villages Network, this picturesque assumes a revisiting role of the origins of almost all students based, in a generational past, their narratives of wellbeing values that constitute, in the distance, in nostalgic sentiment (Pola, A.P., 2019).

Even though other delicacies are uncommon and little known in sensory terms, particularly for the generation living in an urban context close to the coast, such as trout, the goatling aroused interest in seeking information about the tradition and particularities through 2.0 information systems.

Callum wine, certified in 2020, was also a factor of interest as an exotic novelty to the universe of students' knowledge of national wines.

The construction of the itineraries' narrative did not focus merely on the construction of information on wine tourism, but essentially on a creation free of distinct circuits where choices were randomly made based on the emotions felt by each group member. In this construction, the effects of the generation's hedonism that still recognizes the iconic role of food imagery, which is not dissociated from the humanized landscape, are denoted.

Given the importance of visual stimulus for cognitive motivation (Chylirinska, D., 2019), with the feasibility of satisfaction shortly concerning food, this is an integral part of the learning of those who produce the itineraries to those who see them awakened in their interest for its use.

3.1 *The picturesque of the Cabrito Estonado brotherhood*

Since communication through digital platforms plays an essential role in constructing the hedonistic ideal, the entire symbolic set associated with food should explore emotions or the images that can motivate future trips. All this considers that the consumer is cognitive and emotional (Atakan, S. S., Soscia, 2021). These premises may be of interest in measuring levels of satisfaction before and after the gastronomic experience.

The imagery vehiculated by the *Cabrito Estonado* Brotherhood captures the interest or curiosity of those searching for food information. All the rituality that concerns its public appearance confers allure to private interest and enrollment in future memberships. Thus, the safeguarding of gastronomic heritage has an essential role in passing knowledge to new generations; this concerns food and its techniques and a whole territory in which it has built an identity.

When identifying tradition is in menace by rapid changes in rural to urban-like villages, this kind of gastronomic society promotes civic equilibrium (Hess, A. 2018) and ecological conscience, as we dare to say.

The promotion of events concerning the public appearance of this Brotherhood cannot dissociate the public sphere and the allure of tourists itself.

Our hotel management students' attention was captured by the exotism of their ritual costumes and the solemnity of their procession, capturing the dignifying attitude of cultural promotion of food and whole territory.

4 FOOD ONLINE COMMUNICATION AND EMOTIONS

Reflecting on what is extrinsically concerned with food, the valorization of emotions on the experience correlates with the building of intimacy and personal space comfort. The valorization of personal

memories of past experiences correlates with gastronomic satisfaction when it emerges in social media, enhances public choices, and multiplies the combination of private cravings.

Issues related to body and food relate very closely to hedonism semantic correlations. The transmitted images online through the channels that promote tourism turns out to be a projection of private ideals in an acceptable socio-cultural set regarding binomial satisfaction/acceptance.

Time, location, and social setup as influencers of past food experiences (Nath, E.C et al. 1, 2020), can also be created by virtuality and project future cravings and hedonic motives for new experiences based on the ideal of the recreation the binomial time and space associated with real encounters with locals and nature, where authentic experiences can be made (Pereira Neto, Ana 2020).

The search for authenticity is closely related to slow tourism (Riikonen, V.et al. 2021), closely related to sustainability and integrated development, and the consciousness of changes in binomial time/space concerning quality-based knowledge of local culture. On a tourism-based approach, consumerism must be understood on emotions by the expectancy of the encounter with wellbeing.

Concerning food-based hedonism, the private desire for novelty, understood in the cultural axis of profane activities in which time, location, and social setup are scenic references, can have a good use for sustainable territorial development concerning tourism activities. For this, it needs to comprehend the plurality of personal deviant information produced by non-official internet sites on original/authentic local/regional food.

Nowadays, and for most people, it is unthinkable to live without a computer or mobile devices with internet access. These means are an integral and inseparable part of the daily routine, making it possible to carry out the most diverse tasks and communicate and interact.

Studies carried out in the 1980s of the 20th century consider computer-mediated communication (CMC) to be a cold and impersonal communication, poor in relational terms, given there is a lack of non-verbal signs (facial expression, gesture, among others). (Derks, Fischer & Bos (2008); Manca & Delfino, 2007)

From the 1990s onwards, there was a change of “look” concerning communication online in virtual environments. Contrary to common sense and the view defended until then, it is not communication, stripped of any feeling, or difficult to express, given the absence of non-verbal indicators. Currently, the possibility of communicating online using audio and video applications (audio conference or video conference/video call) contradicts the absence of non-verbal signals.

CMC is, however, primarily written, requiring some training in the use of the keyboard and expression of thought and emotions. The written word consists of

a conceptual and logical representation of emotions, having less to do with the experience of emotions itself. Verbal language represents the emotional experience in a systematic, analytical and logical way (Galati, 2004). Perhaps because of this, most people consider CMC to be more formal, less intimate, and impersonal than face-to-face communication (FaF). However, as Wierzbicka (1999) states, “Words matter,” as they provide clues about others’ conceptualizations. It is through words that we have access to people’s emotional universe.

Derks et al. (2008) concluded that the differences between those two types of communication are not very large based on the studies carried out since the nineties. That is, over time, CMC and FaF do not differ in terms of expressing our emotional states and providing personal information. Because there is no physical expression of emotions in CMC, people tend to be more explicit about their thoughts and feelings. There is a greater focus on our inner self, which means the inclusion of clues about personal feelings and thoughts (“self-disclosure”) (McKenna, Green, & Gleason, 2002).

We can even say that when considering potential customers’ expectations and trying to convey the emotions they expect to experience, it requires the use of strategies based on “linguistic and typographic manipulations that can reveal relational information from CMC” (Amante Quintas-Mendes & Morgado, 2006, p. 8). Writing codes (“emoticons,” repetition of words, intensification, and repetition of capital letters) as well as other textual indicators, such as metaphors and figurative language, make it possible to compensate for the absence of the physical presence of the interlocutors, completing and reinforcing the virtual communication. (Kovecses, 2000; Etchevers, 2006).

The virtual sharing of experiences, for example, on social networks, as well as the emotions involved, contribute to creating an emotional bond between the consumer and the brand, the product/tourist destination, being a crucial strategy, according to the experts, for “marketing experiential” (Sobejano, 2009).

The emotions can be triggered and, at the same time, trigger food experiences. They could be one of the main aspects capable of enhancing food experiences. (Akiyoshi & Costa, 2013).

Trainees, future professionals, should be provided with concepts and tools for work, promotion, and digital communication, commonly referred to as Web 2.0 tools, to optimize the performance of their functions and, above all, communication with employees, consumers/customers, for example, through social networks.

5 FINAL NOTES

For a conscious approach to the theme of territorial sustainability, concerning the dissemination of

traditional food, within the scope of communication tourism design, we consider it necessary to reflect on its symbolic and cognitive aspects.

Holistically speaking, communication should be intelligible, integrating all components involved in 2.0 networks in a more personalized logic, supported by emotional choices. These choices can serve as drivers of desire for tourist experiences where the original features transform into perennial knowledge. In this way, we see an advance towards global communication increasingly supported by emotional knowledge that can be understood in a post-humanist logic, where the primacy of justice and ecology can fulfill its purpose.

In a learning situation, the focus of attention, the stored contents, and how they will be understood and recovered will be influenced by an emotional component, even if it does not occur consciously for the subject. Emotion and cognition are strongly interrelated processes, meaning that all thinking is imbued with emotion and vice versa.

We understand the comprehension of individual emotions as a support for learning and innovation in the efficiency of the entire communication process, as the professionals integrated into the tourism system are emotional persons. In this sense, we see the utility of applying a dynamic emotional scale to benefit the efficiency of the entire communication process.

Knowing that we cannot dissociate tourism from its andragogical function, it is helpful for the comprehension of communication-based knowledge, the comprehension of individual emotions as a support for learning and innovation in a world shaped by multiple possibilities of creative interactions such as artificial intelligence and human nature.

In the continuity of our research, following this orientation, we will approach the consciousness of the self in a recreation supported by a more humanized virtual communication towards good profits for local and regional business, where original food is a tourism attraction.

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Vaccine hesitancy in the Ostrobothnian Bible Belt? Vernacular authority at work

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ABSTRACT: The current article is based on an interview with three women living in the Northern parts of Swedish-speaking Ostrobothnia, Finland, who admit to being doubtful about and refusing immunizations. Thus, the article deals with the question of vaccine hesitancy in the so-called “Ostrobothnian Bible Belt.” This area stands out as a pocket or a cluster where vaccine hesitancy is more prevalent than elsewhere in the country. Utilizing the concept of “vernacular authority,” the article sets out to identify and analyze the women’s motives not to vaccinate their children. In doing so, it uncovers various explanations, ranging from personal experiences of alleged, unfortunate secondary effects of vaccines to pragmatic arguments based on the women’s feelings. As it takes into consideration these kinds of non-institutional traditions, the article lays bare the actual empowering forces by which these women orient themselves when it comes to vaccines. One question that runs throughout the investigation is whether or not the so-called “strong religion” that characterizes the area serves as one of these above-mentioned empowering forces. Is it, in other words, fair to speak of vaccine hesitancy specifically in the Ostrobothnian *Bible Belt*? At least when it comes to the three women interviewed here, such a link seems missing.

Keywords: Vaccine hesitancy, The Ostrobothnian Bible Belt, Vernacular authority, Non-institutional traditions

1 INTRODUCTION

In 2018, I conducted some semi-structured interviews with people in the northern parts of Swedish speaking Ostrobothnia in Finland. Among the interviews, there was one in which I had the opportunity to talk with three women simultaneously. This article is based on that same interview. I had made contacts with the women through a mutual acquaintance of ours, who happened to know that the informants were so-called “vaccine-hesitant.” The term refers to anyone who is doubtful about vaccinations or who chooses to delay or refuse immunizations even when they are readily available (McKee & Bohannon, 2016, p. 104). Such a problem, in some ways, constitutes the very image of the relationship between tradition and innovation since vaccines can be seen as intruding on something natural and traditional. To some extent, the three women also expressed such a view, which will be exemplified further in the article.

During the past decade, from time to time, the northern parts of Swedish-speaking Ostrobothnia have appeared in the media whenever there has been a discussion about vaccines. The reason for its

reappearance is that the area stands out as a pocket or a cluster where vaccine hesitancy is more prevalent than elsewhere in the country. Also, in popular parlance, the same area is widely known as a “Bible belt” or, more precisely, as “the Ostrobothnian Bible Belt” (Herberts, 2008, p. 162; Häger, 2017; Dahlbacka, 2017). This Conservative Protestantism – to use a concept that refers to a set of religious beliefs that differ significantly from the ones generally taken for granted in society or by mainline or liberal Protestantism (Greeley & Hout, 2006, p. 6; Berger 1970, p. 6) – dates back to the Protestant, Pietistic revival traditions of the 18th and 19th centuries.

In particular, some branches of the so-called Laestadian revival movement (a protestant, churchly revival movement dating back to the 19th century) are represented in the area. Laestadianism is generally known for its conservative values and strong social cohesion and for its adherence to the biblical device of “living in the world but not of the world.” To some extent, this way of life has led to a view of the adherents of the movement as intentionally isolating themselves from the surrounding society (Snellman, 2011, p. 61, 85–86). Such a view corresponds well with more

general descriptions of conservative religious groups. These descriptions often portray the groups as social communities that accept parts of modern society and reject or oppose others for religious reasons. Alternatively, using the words of the historian Johan Huizinga (1984, pp. 77–85), the groups try to live a “historical life ideal” in a modern world. This ambition sometimes culminates in them creating their own institutions as a way of preserving and protecting their religious tradition from the society they are surrounded by, despite also being part of it. One frequently mentioned example is the Laestadians’ refusal of televisions. This measure could be labeled as a means of protecting their religious tradition against the dangers associated with the innovation of television.

Acknowledging the fact that several studies from other parts of the world identify religion as a prevalent motive behind vaccine hesitancy (McKee & Bohannon, 2016, p. 106; Dubé et al., 2014, pp. 6650–6651; Ruijs, 2012b; MacDonald, 2015, p. 4163), it would be fair to assume, or at least suspect, a possible connection between the conservative religiosity and the vaccine hesitancy that the Bible Belt displays. Whether such a link actually exists was one of the questions I hoped to find an answer to with my interview.

To be sure, my informants, for their part, denied any immediate connection between their religiosity and their vaccine hesitancy (except for one interesting detail, which appeared late in the interview and to which I will return). Besides, it is hardly possible to draw any general conclusions from an interview with three persons. However, the conversation was worthwhile as it uncovered other incentives to the informants’ dissociation from vaccines. This is precisely the kind of local narratives and convictions concerning vaccine hesitancy that Kitta & Goldberg (2017), in their research, are asking for. Hence, in the present article, I will focus on the incentives or motives that appeared in my discussion with the three women, i.e., how they explained their dissociation from vaccines and justified their decision not to give them to their children. My aim is not to give an all-embracing explanation to the vaccine hesitancy in the area but rather to throw light on some existing accounts. I will approach the motives with the aid of the concept of “vernacular authority.” Before I expand on this concept, I will outline the background concerning the vaccine hesitancy in the Ostrobothnian Bible Belt.

2 BACKGROUND: VACCINE HESITANCY IN THE NORTHERN PARTS OF SWEDISH-SPEAKING OSTROBOTHNIA

“Welcome to the Bible Belt” is one of many answers given to the question of why Ostrobothnia hosts many people rejecting vaccines. This specific answer

appears in the commentary field to a blog post, in which vaccines, in general, are discussed (“Vi har glömt varför vi vaccinerar oss”). A similar line of argument can be found on another forum, where the “power of the Bible Belt” is made responsible for the resistance in Ostrobothnia (“Starkt motstånd mot hpv-vaccin i Jakobstadsregionen”). The references to the religiosity of the area indicate a perceived causality between religious conviction and vaccine hesitancy. According to common belief, vaccine hesitancy is partly due to the religiosity of the Bible Belt. To be sure, such references are not limited to the Internet. In an article in *Helsingin Sanomat* (Valtavaara, 2018) – the largest newspaper in Finland – a former member of one branch of Laestadianism is interviewed. According to her, the phenomenon of vaccine hesitancy has grown rapidly in recent years due to the – as she calls it – group pressure of the religious community.

These are merely three examples of the recurrent contributions to the debate on vaccines in Finland that takes place both on social and traditional media. As such, vaccine hesitancy is hardly a new phenomenon. Instead, it is as old as vaccination itself (Hannikainen, 1914, p. 63; Wolfe, R. & Sharp, K. 2002, p. 430; Poland, G. et al., 2011, p. 97). It also exists worldwide, across all socioeconomic strata of the population, and without limitations to specific communities (Dubé et al., 2014, p. 6653.). At the same time, it is clear that epidemics often occur among groups or communities – so-called *pockets* or *clusters* – whose members oppose vaccines and interact socially, mostly with each other. In such clusters, the members become susceptible to infection and create a breeding ground for passing the infection on to others (Wombwell et al., 2015, p. 599; Ruijs et al., 2012a, pp. 362–363.). The fact of the matter is that such communities are sometimes religious or anthroposophical, such as the Orthodox Protestants in the Netherlands or the Amish settlements in North America.

Judging by appearances, vaccine hesitancy is by no means diminishing. On the contrary, the trend is the opposite (Wolfe, R. & Sharp, K. 2002, pp. 431–432; McKee & Bohannon, 2016, p. 104). Admittedly, on an international scale, vaccine hesitancy is low in Finland, at least measured by the degree of vaccinated inhabitants (Launis, 2013, p. 2413; Puumalainen et al., 2015, p. 2222). The fact that Finnish nurses’ wages are not affected by the number of vaccinations they carry out might partly explain Finns’ relatively high confidence in vaccines. The latter is (or at least has been) the case, for instance, in Great Britain (Mänttari, 2014).

Still, even in Finland, there have been signs of increasing critique of vaccination (Puumalainen et al., 2014, p. 2222; Sivelä et al., 2018), as the quotations above also show. The women I interviewed supported this view, namely that the

hesitancy towards vaccines is by no means disappearing. According to them, there is a lot more information obtainable nowadays, and the youth find out and look this information up by themselves. Although close to 100 percent of the population is vaccinated on a national level, there are places where the coverage is not as high. The city of Pietarsaari, and its surroundings, have long been one of those places. For quite some time, only 83,5 percent of the children born in 2013 had received the MPR-vaccine, compared to close to 95 percent, which is the corresponding figure for the whole country (“Rokotuskattavuus,” 9.12.2019). In 2016, the pediatrician in Pietarsaari, Markus Granholm, estimated that there were school classes with less than 60 percent of the children having been vaccinated (Saarikoski, 17.7.2016). Even though these numbers have changed for the better, and the vaccine coverage has increased since the measles incident in 2019 (Elonsalo & Baum, 2019), it is still reasonable to describe the northern parts of Swedish speaking Ostrobothnia as a pocket or a cluster where the vaccine hesitancy is more prevalent than elsewhere in the country.

There are, of course, many different reasons why parents do not vaccinate their children. These reasons have been relatively well documented. For instance, a quite recent literature study that scrutinizes scientific studies that have mapped parents’ motives for not vaccinating their children divides these motives into four categories. These categories are religious reasons, personal beliefs or philosophical reasons, safety concerns, and a desire for more information from healthcare providers (McKee & Bohannon, 2016, p. 104.). Naturally, time, place, and the group in question have their effect on these motives (Puumalainen et al., 2015, p. 2222.). Nevertheless, there is no doubt about the fact that religious conviction is an essential and often alleged reason (McKee & Bohannon, 2016, p. 106; Dubé et al., 2014, pp. 6650–6651; Ruijs, 2012b; MacDonald, 2015, p. 4163.). But then again, religious vaccine hesitancy has a long history. After the death of Edward Jenner – the “father of vaccination” – the commemoration of him became equivalent to the very picture of the Enlightenment. Since, in some circles, the Enlightenment was perceived as having had a disastrous effect on both society and church, vaccination subsequently was seen as a challenge to God, an example of “people confronting divine providence instead of submitting themselves to God’s will” (Spruyt, 2016, p. 115.). Still today, this view survives among some of the Orthodox Protestants in the Netherlands (Ruijs, 2012b, p. 6). This fact, in its turn, indicates that the arguments against vaccination in some instances “have remained remarkably constant over the better part of two centuries” (Wolfe & Sharp, 2002, pp. 431–432.).

Indeed, the attitude towards vaccines in seemingly homogenous areas and communities is not

necessarily uniform and clear-cut. For instance, in the Dutch Bible Belt, the vaccine hesitancy manifests itself clearly in only two out of five Protestant movements (Ruijs, W. et al., 2012a, p. 363; Ruijs, W. et al., 2011). What is more, the reasons behind vaccine hesitancy are not necessarily religious, even in religious communities (Kulig et al., 2002). On the other hand, religious causes are sometimes played down in favor of other, more passable, or politically correct objects, even though religious reasons are the ones causing the hesitancy (Spruyt, 2016, p. 125; Ahlvik-Harju, 2019, p. 336).

3 VERNACULAR AUTHORITY AS ONE ASPECT OF TRADITION

When approaching and analyzing the interview with the three women and the statements they made concerning their attitude towards vaccines, I make use of the concept of “vernacular authority” as discussed by Robert Glenn Howard (2013) in his article “Vernacular Authority: Critically Engaging Tradition.” Howard’s understanding of tradition is that of a “cultural map” or a “handy tool” that helps people orient themselves when confronted with the need to make a decision or when having to sort out difficulties in their daily lives. Tradition, in this sense, refers to “common knowledge handed on by their culture” or, put differently, “a handy tradition to which individuals can appeal while adjudicating between the possibilities offered them by everyday living.” Tradition, in other words, is what people refer to when making decisions and when orienting themselves (Howard, 2013, pp. 78–79).

Howard distinguishes between two kinds or two aspects of tradition. The first one he calls “institutional” and the latter one “non-institutional” or “vernacular.” Both of these aspects can serve as tools or authorities when faced with having to make decisions. However, whereas institutional tradition relies on, or seeks validation in, formally instituted social formations like churches, newspapers or academic journals, “an appeal to vernacular authority is an appeal to trust in what is handed down outside of any formally instituted social formation” (2013, p. 81). When speaking of vaccines, the institutional tradition would most obviously be represented by the “Finnish institute for health and welfare” (2020) and its recommendations, as expressed in the national vaccination program.

Vernacular authority may be based on something that an individual experiences by himself or herself, but it may also be based on a more or less shared common sense or “informally aggregated communal wisdom” that has been handed down. Precisely this “handed-down” nature and this appeal to “the aggregate volition of other individuals across space and

through time” is what characterizes vernacular authority (Howard, 2013, pp. 80–81).

Just as Howard points out, the authority of a tradition, i.e., the value or the impact of it, is not “limited to its verifiable continuities and consistencies over space and time,” i.e., whether it is empirically verifiable or not. Even a discourse that relies on a non-institutional tradition (vernacular authority) can have a strong social impact and serve as an empowering force for those who perceive it (2013, p. 79). This is especially true when speaking of vaccines, as we will see.

The concept of vernacular authority emphasizes the importance of observing all kinds of traditions that are employed when deciding between possibilities and that are appealed to when justifying one’s decisions. Even those traditions that might not be empirically verifiable. When applied to my interview, such an approach means identifying the traditions with which the three women justify their attitude towards vaccines and what they base their decision on. Consequently, my primary aim is to identify the traditions or motives, not evaluate, verify, or criticize them.

To categorize the traditions identifiable in the material, I furthermore take a cue from Finnish folklorist Kaarina Koski.¹ In an unpublished presentation titled “Totuudet kuolemasta” (The truths about death) (2017), which I have at my disposal, Koski distinguishes between four ways of defining claims to truth – in her case, especially relating to the question of death. These categories are 1) personal experience, 2) authority, 3) empirical evidence, and 4) pragmatic arguments. To some degree, what she labels appeals to “authority” and “empirical evidence” seem to correspond with the concept of “institutional tradition” discussed by Howard. In contrast, personal experience and pragmatic arguments seem to lean more towards vernacular authority. Moreover, Koski’s notion that a person can express and appeal to different – and mutually contradictory – traditions is noteworthy since this can also be perceived in my interview concerning vaccine hesitancy.

4 VACCINE HESITANCY IN THE OSTROBOTHNIAN BIBLE BELT?

The three women I talked to wished to remain anonymous due to the sensitivity of the matter. They testified to the occasionally quite rancorous debate taking place not merely in newspapers and Internet forums but also within their own families. And they identified with being the so-called “black sheep” in their circle of friends and acquaintances, as one of

the informants expressed her experience. They said they have learned to choose where to reveal their stance on vaccines and claimed they have no interest whatsoever to debate on the matter. Hence, no detailed personal information will be disclosed about these women.

What can be said about them is that they were born in the late 1960s, in the early 1970s, and the early 1980s, respectively. This shows that the question of vaccine hesitancy is not a phenomenon limited to a particular generation. At least at the time of my interview, the three women lived in the same village and belonged to the same local Laestadian prayer house congregation. All of them had children of their own, and a couple of them also had grandchildren. In other words, they had been brought face to face with the question of whether or not to vaccinate their children. They had all turned skeptical towards vaccines around 2010, in the wake of the so-called swine-flu and its vaccine, which caused some unexpected and severe secondary effects.

When asked, all three women stated that they do not believe that vaccines have any effect and that this applies to all kinds of vaccines. However, when I followed up on the question, it became clear that the opinion was not necessarily altogether unanimous. One woman expressed some hesitation when stating:

Even if they [the vaccines], contrary to expectation, were effective, the question is whether it is worth taking them, considering all the secondary effects.

Another admitted – referring to a web page about vaccines – that she believed vaccines do “something.” She thought vaccines cause antibodies to arise, but she was skeptical about whether these antibodies work against the diseases in question.

What all women had in common was that one or more of their children suffered from various diseases or conditions, which they firmly believed had been caused by vaccinations. They mentioned, for instance, allergies and asthma but also other diseases. Towards the end of my interview, one of the women said:

Perhaps we who happen to have been ‘awakened’ have landed up in these ‘vaccine shoes’ because there is something with our children that has caused us to wake up. It’s not like we just picked these things ‘from the tree’ – like: ‘what is this?’ Instead, we’ve actually encountered them at the kitchen table. It is facts that we have, and then we’ve moved on from there.

Hereafter, one of the other women stepped in, explaining that all of her children had had some sort of allergy or asthma. Except for the last one – the

1. Koski should also be credited for being the one who tipped me about the concept of “vernacular authority”.

only one being unvaccinated. Consequently, she stated that there is a consistency in why they believe as they do, which is why they agreed to be interviewed. Being interviewed allowed them to tell their story and explain themselves.

Referring to Koski's categories, the explanations that the women give words to can be said to be within the scope of personal experience. Throughout the interview, references to personal experiences such as those mentioned stand out as the most frequently recurring and the most decisive motives behind the decision not to take vaccines. As one of the women concluded:

With all that we've seen within our own family, it is perfectly enough to make this decision – i.e., that we refrain from taking [vaccines].

It is evident that for these women, these experiences also work as some kind of empirical evidence for their conviction. Not in the sense of “verifiable continuities and consistencies over space and time,” but rather as “aggregated communal wisdom,” to use the words by Howard (2013, p 79, 81). In other words, their hesitancy towards vaccines has come into existence as a result of personal experience. However, the testimonies of others with similar experiences have undoubtedly enhanced and strengthened their conviction: “I have many examples of a similar kind. And that is why you only get strengthened in your conviction,” one of the women said. Howard speaks of “vernacular webs,” by which he refers to (in his case) online locations that are linked by a shared value or interest and that adherents to a specific vernacular authority visit. This has a kind of self-fulfilling result because it “increases the perception of continuities and consistencies and thus increases vernacular authority” (ibid, p. 82). The situation is very similar in the case of vaccine hesitancy, where the women repeatedly make references to incidents where vaccinations, allegedly, have ended up badly. One by one, these incidents could perhaps be considered as one-offs, but counted together, they seem to garner authority from “the aggregate volition of other individuals across space and through time.” They generate a shared authority for the validity of their stance, at least for the women with whom I talked.

In close connection to personal experience is what Koski calls “pragmatic arguments.” According to Koski, pragmatic arguments imply a sense of truth based on values and goals with desirable consequences for the individual or the community to which the individual belongs. For example, she mentions convictions based on hope and longing, which might occur when people ponder whether there is life after death. Such pragmatic arguments were discernible when speaking of vaccines as well. The decision not to take vaccines was motivated with

utterances such as: “common sense tells you that you should not take a vaccine,” “it stands to reason,” “it was self-evident that there ought not to be a vaccine syringe in a human body,” or “I cannot understand how one could even think differently.”

Most expressively, however, the references to hope and belief became visible when one of the informants ventured into pondering about whether a little child really needs vaccines:

Woman 1: “Let's say you get a baby. We all think they're adorable. They're so lovely! [...] But why do we feel that they are created so half-completed that, at the age of nine weeks, they need to get something external into their blood? [...] I mean, why would God have created us so half-completed that we need it only a couple of hours old as you said [...] Perhaps there, this is where faith...”

Woman 2: “That is what I said as well; this is the only time when faith enters into the picture.” [...]

Woman 3: “One thinks that, God must have known what he was doing [...] and that he knows what is best for us.”

The women's references to vernacular authorities, such as their own experience or pragmatic arguments, such as those I have accounted for above, go hand in hand with their critical stance towards institutional health care. They do not repudiate all health care as such but prefer alternative medicine when possible. Besides, and to give an example, they also chose to endure without aspirin, at least to some degree. However, when it comes to vaccines, the women give utterance to an evident distrust, but also – as I see it – to a feeling of disappointment or a sense of having been misled by the institutional authorities. For instance, they question why children receive vaccines without allowing the parents to read the patient information leaflet beforehand. And they suspect the nursing staff of knowing far more about the downsides of vaccines than what they intend to do.

Furthermore, the women call into question statistics that show to what degree vaccines have decreased diseases. And they imply that vaccines were introduced as a means, not primarily to get rid of diseases, but to save money when parents do not need to stay at home with sick children. Finally, they speak of the pharmaceutical industry in terms of a “foul game.”

When considering the second category in Koski's typology, i.e., the one she calls “authority,” it would appear as if the statements above indicate that the women I interviewed deprecate what Howard calls institutional authority. At least when it comes to vaccines. When inquiring about what they base their belief in, or from where they garner their

information, the women mentioned a website (vaccin.me), books, and video clips – for instance, a book by a medical doctor, Jackie Schwartz, called *Vaccinationer – Fördelar och nackdelar* (The Pros and Cons with Vaccines) – and different meetings about vaccines that they had attended. Interestingly enough, the majority of these sources are produced or maintained by people with positions in the medical field who assert that their claims are based on scientific studies. In other words, apart from personal experience, the only other authorities that the women appealed to were doctors or nurses. This shows how references to science are also used in the discourse on vaccines and how they are positioned against institutions and other (more established or acknowledged) references to scientific research.

At least according to the women with whom I discussed, the difference between these authorities appears to be that the doctors and nurses they refer to have seen and represent the “reality” as it is:

Woman 1: “I have seen a lot of video clips by doctors who have opted out [from their work as doctors or from advocating the vaccination industry], who are professors, who actually possess knowledge of their own, who tell the truth as it is.” [...]

Woman 3: “Books and clips, about which one gets the sense that this is not something that someone is making up. Rather it is something that they have lived through and experienced.” [...]

Woman 1: “That is what is so interesting, that the ones writing these things [on the webpage vaccin.me] are doctors, who come straight from the hospital reality.”

This more authentic or genuine “reality” – which the women consider themselves to be a part of – is contrasted with those who “do not concern themselves with reality”:

Woman 1: “Perhaps it is a bit rude to say, although it has some truth to it, but they often say that empty vessels make the greatest noise. It is often those who have not learned thoroughly or who do not want to concern themselves with reality – who do not want to concern themselves with facts – that shout loudest at those who do not take vaccines [...]. But we’re the ones who have learned thoroughly, found things out, and gained a better insight.”

Woman 3: “I would not want those in favor of vaccines to think that we have treated all of this lightly [...] that we don’t care and that we’re irresponsible when it comes to health and infections. Because frankly, I feel that it’s quite the opposite. I have put myself into it to the extent that I have become exhausted, almost to

the point where I stay awake at night reading and pondering [...].”

5 CONCLUSION

My interest in the vaccine-hesitancy appearing in the Northern parts of Swedish-speaking Ostrobothnia stemmed from an overall interest in the so-called Bible Belt and from the notion that globally, vaccine hesitancy, at least to some degree, is characteristic of areas of strong religion. The question that begged to be answered was whether or not there are religious explanations to the vaccine hesitancy. Is it, in other words, possible to literally speak of vaccine hesitancy in the Ostrobothnian Bible Belt (and not merely in Ostrobothnia)?

It goes without saying that the sample analyzed in this article is nowhere near sufficient enough for rendering it possible to speak of any representativeness. Besides, my findings hardly reveal any explicit support for a link between religion and vaccine-hesitancy. The women, to be sure, on thinking it over, did admit to believing that God would not allow a child to be born insufficient, in the sense that it would need something “external” injected in its body right from the very beginning. They concluded that this might be an instance (or rather *the only* instance) when faith is brought to the fore. However, this one faith argument must primarily be regarded as supplementary to or endorsing their real reason, which seems to be a personal experience of secondary effects of vaccines on the one hand and distrust in the institutional health care on the other hand. This coexistence of motives supports Koski’s assertion that a person can simultaneously express and appeal to different traditions.

In this article, I have focused on the explicit motives for vaccine hesitancy expressed by the three women. Thus, I have also avoided getting lost in speculations about possible *indirect* links between religion and vaccine hesitancy. For instance, when asked why they believe that this particular region hosts a comparatively large amount of vaccine-hesitant people, one of the women suggested that it might have something to do with the people there being enterprising and “go-ahead-minded.” She meant that it required a certain amount of determination to abstain from vaccines. Her point alluded to our discussion beforehand, where I had told them about my research about the Bible Belt and its characteristics. Among those characteristics is a particular enterprising spirit, often said to be typical of Laestadians. Since the women recognized this enterprising spirit as something characteristic of Laestadians, one could perhaps trace some far-fetched or indirect connection between vaccine

hesitancy on the one hand and the enterprising spirit associated with Laestadianism on the other. However, that would not do justice to the women's explicit rejection of religion being their motivation.

Analyzing vaccine hesitancy through the lens of vernacular authority allowed me to consider and discuss every motive propounded by the women, not just the empirically verifiable ones. Even though the reasons that the women referred to were hardly exceptional, it is essential to consider also non-institutional traditions such as personal experience and pragmatic arguments, as it lays bare the actual empowering forces by which people orient themselves.

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A university church going online: Traditionality and experimentality in YouTube worship services at the university church in Leipzig

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ABSTRACT: This article will study a religious tradition found at many German universities with evangelical Faculties of theology, namely the university worship service. Headed by a professor of theology titled University preacher (Universitätsprediger) and aimed at an academic community, the sermon has had a distinct academic focus. At Leipzig University, not only the sermon but also music has been pivotal. When the Covid-19 pandemic in March 2020 forced Germany into lockdown, the Leipzig University church decided to stream the worships on YouTube. I will analyze the online church services during 2020-2021. Given the academic emphasis on the university sermons and the musical heritage at the Leipzig University and its church, I will broaden the perspective and regard the whole worship service as a space of traditionality and experimentality. While the sermon is often regarded as an intellectual experience and the music as an emotional one, I view the sermon and the music and other painted, sculpted or performed art as having agency to communicate with both mind and emotions.

Keywords: University church leipzig, Online university worship services, Covid19-pandemic, Traditionality, Experimentality

The academic worship services at universities in Germany have a long tradition. Their roots can be found in the middle ages and the close relationship between academia and the Catholic Church. Many professors in pre-Reformation Germany were also simultaneously priests or monks. This cooperation between university and church would continue after the Reformation, with many professors also serving as parish priests. As a regular event focusing on the sermon, the university worship service can rightly be declared a specific post-Reformation phenomenon (Albrecht 2013, p. 6 and 8). In 2013, at least 15 German universities had university preachers arranging regular or more infrequent academic worship services (Martin 2013, p. 22). The focus in this article will be on Leipzig University.

1 THE PAULINUM AND UNIVERSITY WORSHIP SERVICES

When the Leipzig University was founded in 1409, it was done so in close relation to the local Dominican monastery and its church dedicated to the Apostle Paul (Mai 2017, p. 90). During the Reformation, the monastery was closed, and its church was secularized. In 1543, Duke Maurice of Saxony assigned the (former) church of St. Paul to the university. Two years later,

the church was officially inaugurated – as an evangelical university church – at a worship service where the reformer Martin Luther himself preached (Hütter 1993, p. 117-119; Beyer 2017, p. 30). For almost 150 years, the church was mainly used for ceremonial purposes within the university and as a grave chapel for professors and students. The church's use was enhanced in 1710 when it was decided that regular Sunday services should henceforth be held (Mai 2009, 90-91, 104-105). In 1968, the more than 250-year-old tradition was severely challenged when the GDR regime blew up the university church to build a purely secular university. For nearly fifty years, the academic worship services were held in the adjacent St. Nicholas Church (Petzoldt 2017, p. 154). However, soon after the German reunification in 1990, the university started planning to remove the university complex erected after 1968. Due to the trauma that the destruction of the university church had caused, the support for rebuilding the university church was considerable. After a long and cumbersome process, a new church, the Paulinum - Assembly hall and university church of St. Paul, was inaugurated in December 2017 (Groop 2019, p. 2021-1023, 1033).

Since its opening, evangelical church services have been held regularly; as a rule, every Sunday and church holiday at 11 a.m. The continuity since the opening year in 1710 is also proudly promoted

on the university's web page (Universität Leipzig, Gottesdienste). The combination of academic theological emphasis and musical excellence has rendered the university service relative popularity, and the services have been well attended, despite a low church membership in this part of Germany.

The academic character of the university church can be approached from several perspectives. Firstly, the university church has never had any members, but those attending its services are either members of another parish or not church members. Secondly, the pastors are university staff. The pastor in charge holds the title of university preacher (Universitätsprediger) and is one of the professors at the Faculty of Theology. Traditionally, only theology professors or other distinguished priests with doctoral degrees have preached at the university services. Nowadays, all ordained staff members of the Faculty of Theology belong to the so-called *Predigerkonvent* (preachers' convention) and can preach in the university church (A. Deeg, personal communication, April 14, 2021). Thirdly, the worship services at Leipzig University are predominantly aimed at an academic audience. This follows a broader tradition of Protestant university worship services in Germany, stressing that the academic sermons have a high academic level. The preacher should not step out of his or her academic context but rather aim the sermon at intellectual listeners (Martin 2013, p. 26 and 29).

Furthermore, the sermon should be something of an experiment. Interestingly, this experiment is somewhat restricted or directed in its aim. As suggested by Professor Reinhard Schmidt-Rost, it should prove the plausibility of the Christian faith and its relevance for each modern society (Schmidt-Rost 2013, p. 19). This is a view that the former university preacher in Leipzig, Professor Peter Zimmerling, seems to embrace. Emphasizing the hermeneutical function of the academic worship service, he stresses the preacher's duty at the university worship to build a bridge to the critical listener. The sermon should be delivered so that it is understandable to a "religiously unmusical" listener. Thereby the academic worship service and its sermon constitute something of a contact zone (Pratt 1991) – a space characterized both by faith and science, also visited by people who did not consider themselves as Christians, or, as put by Zimmerling, where it is possible to "try out Christianity" (Christsein auf Probe). However, in line with Schmidt-Rost, the sermon in Leipzig should not predominantly be regarded as a scientific experiment, but as a means of using appropriate and creative approaches in order that the critical listener may at least experience [Christian] faith as "somehow plausible" (P. Zimmerling, personal communication, May 31, 2019).

The strong emphasis on music in the university church has long traditions dating back to the organist

and composer Johann Sebastian Bach (Mai 2009, p. 107). The Paulinum - Assembly Hall and University Church of St. Paul - is equipped with two church organs mainly played by the director of music at the University, Professor David Timm, or the church organist Daniel Beilschmidt both acclaimed concert musicians. Moreover, the worship services are frequently guested by musicians performing compositions by Bach and other composers of sacral music.

Building on the centrality mentioned above of the sermon in the evangelical worship service and of music in the Leipzig service, I would, in this article, like to broaden the perspective and view the whole worship service as a space of tradition and experimentality, though with particular focus on the sermon and the music. While the sermon is often regarded as communicating with the human intellect and the music with the emotional side (see, for instance, J. Block 2010, p.532-549), I view the sermon, the music, and other painted, sculpted or performed art as having the agency to communicate with both mind and emotions. Focusing on the digitally transmitted services during the Covid-19 pandemic of 2020-2021, I study aspects of traditionality and experimentality. In other words, I will draw attention to traditional representations in the online worship services, relating to creed, history, and tradition, but also novel and creative approaches.

2 TURNING DIGITAL

When the Covid-19 pandemic hit Germany and the rest of the world in the first months of 2020, Leipzig University was soon faced with restrictions and various degrees of lockdown. The solution for the university church, like for many other religious communities, was to go digital. People were invited to participate in filmed worship services online instead of attending the ordinary university worship service. Beginning on April 11, 2020, the university church in Leipzig transmitted its worship services via YouTube. During the first year of digital services, between the Easter of 2020 and 2021, 29 services were made available. In time, they spanned between 28 minutes and 1 hour and 4 minutes. Within a month, the worship services were typically visited between 500 and 1500 times (Universität Leipzig, YouTube).

Viewed from the perspective of the title of the book at hand, digitized worship services pose an interesting research challenge. Reaching out and engaging parishioners through online or digital Sunday services was a global challenge during the Covid-19 lockdown when religious communities were forced with short notice to make a quick digital transition (Campbell 2020, p. 3). Most community members counted the days until they could gather in their sanctuaries again. However, voices were also heard of the benefit of

online streaming. For instance, more people often attended the Sunday services online than had attended the services before the pandemic.

Furthermore, while participation in traditional church services tended to be somewhat limited, as Ralf Peter Reimann notes with regard to the churches in Germany, online worship sometimes led to a higher level of activity through personal intercessions posted online and included in the service (Reimann 2020, p. 33). This tally with Heidi Campbell's research on religious communities online. According to Campbell, people who participate in church communities online were essentially "looking for a faith-based social network where they could build relationships, share their faith, and find meaning and value in their interactions and place in the groups" (Campbell 2020, p. 50-51). However, Campbell asserts, "the most common strategy" that religious leaders tended to seek when they went online was that they "transfer their standard offline worship service to an online platform," focusing little on interactivity (Campbell 2020, p. 51).

The Leipzig University worship service fits well within Campbell's description, or what John Dyer calls a "Broadcast Church" (Dyer 2020, p. 53-54). Being a worship community without a registered parish and without parishioners, the university church of St. Paul has a somewhat different character than ordinary evangelical parishes in Germany.

Thus, given these circumstances in Leipzig, the Faculty of theology, the university preacher, and the team responsible for the worship, it could be argued, had relatively large freedom to design an online worship setup that it found meaningful.¹ It was decided to make the online services shorter than the ordinary worship service and focus on the sermon and music. Certain parts of the liturgy did not necessarily have to be included. Previously celebrated every two weeks, Communion was left out (A. Deeg, personal communication, April 14, 2021). In most online services, the credo and the confession were also omitted while there was a stronger focus on reading a bible text, the sermon, prayers, hymns, and music.

The university worship services were created specifically for online attendance. They were produced prior to their release date and made available at the ordinary time of a normal university worship service, i.e., 11.00 in the morning. Furthermore, they were filmed in separate takes, and the various parts were subsequently joined together by a producer. At times

this is visible during the worship service as the furnishing may differ from one moment to another.

Along with each worship service on YouTube, an information sheet is provided, with info about the authors behind the compositions, the individuals involved in the service, and direct links to the various sections in the service. Hymn texts were also provided. The participators and sponsors were presented at the end of each filmed worship, and the possibility to contribute financially was announced.

At every filmed service visiting musicians performed. Typically, a quartet or quintet sang the hymns and part of the liturgy, such as the *Kyrie*-prayer, but the same ensemble also performed other compositions. Five times Bach cantatas were performed, and these services were therefore somewhat longer. It is also worth noting that these cantata worship services had more visitors than the ordinary online worship services.

3 TRADITIONALITY

Leipzig University takes great pride in its history as one of the oldest universities in Europe. The university's internet page highlights central historical episodes like the foundation (1409) in close relation to the St. Thomas monastery, the Leipzig Debate (1519) between Martin Luther and Johann Eck, and the importance of reformation. The medieval church of St. Paul takes a central position in the university's history, as does its destruction in 1968 (Universität Leipzig, Geschichte). The university also emphasizes the continuity of university worship services since 1710 and the musical heritage imputed to the university church (Universität Leipzig, Paulinum - Aula und Universitätskirche S. Pauli).

In sermons and speeches in the digital worship services, references to the old church of St. Paul were not particularly made. However, the link to the old church, and its destiny, was visually brought to the fore in various ways. Several online services started with an image of the bronze replica of the old church in front of the Paulinum.



Figure 1. Opening image before one of the worship services displaying the bronze replica of the old church against the Paulinum.

1. While many individuals were actively involved in the work, the worship services were headed by a designated team. The university preacher and deputy university preacher carried responsibility for the ecclesiastic content and the musical director and church organist were responsible for the music. (Universität Leipzig, Gottesdienste, Über uns).

Another way that the (broken) church heritage was displayed was by rendering details in the architecture of the present building and early modern epitaphs with their sculptures and paintings. Some of these conveyed abstract messages. Others were detailed images inspired by biblical narratives. A common scene displayed in the digital university worship was the epitaphs salvaged from the old church shortly before its destruction. Some of these epitaphs had not been fully restored. Instead, they had been repaired only in part, with techniques that, in fact, enhanced their imperfection and broken history. These epitaphs were contrasted against the church architecture, which was an architect's interpretation inspired by the old church. This did not only accentuate the church history of this space, dating back to a medieval monastery but also its interruption during the GDR regime through the destruction of the old church of St. Paul in 1968.



Figure 2. Partly restored epitaphs in the choir.

The sermons in the online worship services were strikingly traditional. They built upon the bible text having been read a moment before – mostly a text from one of the four Gospels in the New Testament. Typically, the preacher interpreted this text in its own context but in close interaction with the present. Therefore, the preacher would often relate to circumstances or characters that the listeners were more familiar with than the actual bible text. At the bottom line, however, the bible text was considered a source of wisdom, or, even more, a source referring to salvation and eternal life.

Professor Rochus Leonhardt's sermon on Palm Sunday 2021 was a good example of this. Describing Jesus riding into Jerusalem on a donkey, only to be crucified within a week, Leonhardt drew parallels to business leaders and politicians of today; one week admired and the following week loathed. Similarly, Superintendent Sebastian Feyndt, in his sermon on New Year's Day 2021, sought inspiration from the Apostle Paul. The apostle describes his strong hope despite hardships in his letter to the Philippians (Phil

4:13). Projecting the apostle's challenges on the Covid-19 pandemic, Feyndt implicitly, yet carefully, presented a more durable (Christian) alternative. On March 14, 2021, Dr. Kerstin Menzel also referred to the past, present, and alternative future. Menzel referred to the lockdown too. Building on the text in John 12:20 in the New Testament – where a group of Greeks (maybe unsuccessfully) begged to meet Jesus – she drew attention to a better alternative, namely Jesus revealing his imminent death and resurrection.

I have used these three sermons to illustrate the relation between the past, present, and future in the Lutheran sermon. At the same time, as the sermons in Leipzig were rhetorically well-articulated and built on the academic expertise of each preacher, they were also quite traditional. The preachers scrutinized the weekly text with a solid foundation in evangelical theology, related the theme at hand to other contexts in the past and the present, and cautiously offered a future alternative.

A markedly traditional churchly appearance reinforced the sermons. Dressed in a traditional preaching gown, the preachers were filmed in front of the medieval Pauliner altar. The liturgical colors on the altar cloth and the pulpit – changed during the church year – were prominently visible.



Figure 3. Professor emeritus Rüdiger Lux preaching in front of the Pauliner altar.

While the online worship service can be regarded as a mere online extension of the previous worship service held in the University of St. Paul, I consider it more meaningful to regard it as a completely new (or temporary) space that builds upon old traditions. The digital services offered a stronger focus on central liturgical elements by consciously selecting takes and images (of the Pauline altar, traditional vestments and liturgical hangings, architectural details, and the organs). This had the effect of a stronger focus and potentially fewer distractions. The digital services also offered new perspectives. Finally, the worshiper or viewer could see the organist Daniel Beilschmidt, the musical director David

Timm, or any visiting musicians or singers performing.

The relative focus on churchly attributes and architecture in the online worship service was beneficial in several ways. Firstly, it built upon the cultural memory of Leipzig University and its church history, and it enhanced the centrality and significance of the location. This was further pronounced through the relative exposure granted to the organists, visiting musicians, and singers performing compositions by historic composers connected to the university church in Leipzig. Secondly, it enhanced the authenticity and sacrality of this digitally transmitted space of worship. "Online church architecture, like online ritual," writes Tim Hutchings, "represents a convergence between continuation and innovation, designed in this case in pursuit of the experience of authentic sacred space" (Hutchings 2017, p. 40). The relative emphasis on architecture and artwork, including the Pauliner altar, thus served the purpose of making the online visitor feel at home in a historically founded and theologically conscious digital version of a "real church." Thirdly, the qualified production, the framing in select parts of the liturgy, the music and artwork, and the majestic building – all in a university setting – served as something of a quality seal. The online university worship service should not be regarded as inferior to the ordinary service. Instead, it could be regarded as an alternative with certain limitations but also with potential.

4 EXPERIMENTALITY

The worship service in the church of St. Paul has, for a long time, been characterized by a certain experimentality. This holds true, at least as far as the sermon and the music is concerned. Therefore, online services cannot in themselves be regarded as a medium of innovation but rather a continuation of previous principles. Most of the sermons were experimental in a very similar way as had they been delivered in front of an audience. However, sometimes the online medium offered an enhanced experience. When Professor emeritus Rüdiger Lux on Good Friday in April 2021 decided not to talk to the worshipers but instead talked to God – whose son had that day been crucified – his sermon was not only highly personal and emotional. The sermon was also a good example of an experienced orator mastering the medium, where the visitors could, with relative proximity, follow Lux's message and his movements and facial expressions. One week later, Dr. Timotheus Arndt preached about the disciples encountering the risen Christ, who, upon their master's encouragement, got 153 fish in their net. Using a virtual display inserted next to the

preacher, Arndt could graphically explore numerical and symbolic details from his expertise in Judaic studies. Bishop emerita Ilse Junkermann chose a similar approach on Epiphany Sunday in January 2021. In her sermon, she referred to a painting by the German artist Wolfram Ebersbach. The nearly black painting, visible as a digital insert for part of the sermon, had several scratches revealing a bright layer underneath. To Junkermann, these scars symbolized God's light breaking through the darkness. She also referred to the same theme in Bach's cantata 58, "Ach Gott, wie manches Herzeleid" (Ah God, how much heart-break), thereby creating a bridge to the music performed after the sermon.

While the university parish looked forward to the day when they could return to ordinary worship service routines, the digital medium also offered advantages and new approaches. One of them, already mentioned, was the possibility of framing in on specific details or pieces of art against the church background. At other times, images not relating to the church environment were employed. These images were typically displayed during hymns or musical performances, often tying in with the current theme in the liturgical cycle. For instance, images of various plants were displayed on the Sunday of Sexagesima 2021 when the sermon was based on the bible text about the sowing man. Similarly, on All Saints Day, 2020, images of graves and details on epitaphs were displayed. These images brought an additional meaning to the themes at hand beyond what had been expected in the university worship services in Leipzig before the pandemic.

Behind the medieval altarpiece of the Pauliner altar, the passion of Jesus is depicted. The imagery becomes visible by turning the hinged wings (typically) done during Advent, Lent, and Easter. However, the ordinary worship participants sitting in the main hall cannot discern the details of the artwork. In the services during advent and lent, the altarpiece was only displayed in the background. However, at the commencing of the Good Friday service in 2021, the passion imagery was displayed in relative detail, accompanied by organist Daniel Beilschmidt's playing of Bach's Passion Hymn BWV 621 "Da Jesus an dem Kreutze stund" (When Jesus stood by the cross). This combining of sacral music and artwork reveals the enhanced experience that an online worship service could offer.

On Palm Sunday 2021, Bach's cantata "Du wahrer Gott und Davids Sohn" (You true God and Son of David) was performed. Due to lockdown restrictions, the choir could not gather to sing its part in the fourth movement. Instead, each singer did what many other choirs did during the epidemic and recorded their contribution at home. The voices were

subsequently combined. Each singer was projected as a separate frame above the four soloists and seven instrumentalists performing in the church choir at the worship service.



Figure 4. Leipzig University Choir performing the fourth movement of Bach's BWV 23 "Du wahrer Gott und Davids Sohn".

Therefore, while it cannot be denied that the online experience hampered some of the acoustic musical experience, there were also advantages. One of the major advantages, I would argue, was the visibility. The online services provided the viewers with an extraordinary possibility to "come close to" the pastors and musicians. Moreover, since cameras were brought to both organ lofts, everybody could see the organists' efforts in what they had previously merely been able to enjoy as a musical experience. The same holds true for the various ensembles performing, such as Professor David Timm's and saxophonist Reiko Brockelt's jazz performance on February 14, 2021.

5 ANALYSIS AND CONCLUSION

The digital worship services at Leipzig University were not extraordinary in the sense that they offered anything radically different from what had been offered before the Covid-19 pandemic ended ordinary worship services in March 2020. In principle, the organizers continued what they had done before. They put particular focus on the sermon and the music. The worship services can be regarded as performative because they did not have particular elements of communication.

While the online worship services may have been more impersonal in the sense that the attendee sat alone at home, in some ways, they also provided an enhanced focus and experience. For the first time, everybody could see and hear the priest properly during her or his sermon. They could read the facial expressions and experience they – and not the whole parish – were personally spoken to. For the first time, everybody could listen to the sermon in their

own time and from anywhere in the world. For the first time, if something was misunderstood, one could rewind and listen again or look up something that was misunderstood. For the first time, everybody could not only hear but also see the musicians perform.

In this article, I have been highlighting aspects of traditionality and experimentality. I have studied certain features in digital worship services with particular focus on traditional and innovative elements. Leipzig and its university have a long and fascinating history involving personas like Martin Luther and Johann Sebastian Bach. However, it also has a painful history of GDR rule and the destruction of the church of St. Paul in 1968. The connection to the past and the heritage of the university church was seldom verbally articulated in the services during 2020-2021. However, it was presented graphically and musically, arguably more focused than possible at a physical Sunday service.

There is a tradition in the German university churches of relating to the academic setting. The sermon should be directed at critical listeners, with an awareness that many attendees may not be members of any Christian church. The sermons in Leipzig held a high standard. In general, the preachers explored the bible text of that Sunday from their area of expertise. Furthermore, many preachers referred to episodes and characters outside the theme itself, possibly providing an enhanced perception for listeners unfamiliar with the theme from a Christian theological perspective. More than focusing on the sermon as an experiment, in a scientific understanding of the word, the academic focus lied therein that the sermons were aimed at an academic audience. There was a relatively large diversity in how the sermons were delivered. Each preacher approached her or his theme from a rather personal perspective. Therefore, there was an intellectual perspective in the sermons and a personal and emotional one. The sermons were traditional in the sense that they, with few exceptions, were delivered as well prepared, academically solid, theologically considered, constructive speeches, however, with relatively little didactic novelty.

As for the musical representation, there was a strong focus on both tradition and creativity. A profound part of the repertoire consisted of 17th and 18th-century composers. When it came to guest performances, there was a particular focus on Bach. However, each worship service entailed its own distinct musical experience, with a profound level of experimentality. This ranged from new interpretations and improvisations based on old compositions to contemporary music or the musicians' own works.

Seen from the title of this volume – Creating through mind and emotions – one could view the digital worship service as a creative process, where

the sermon relates to the human mind and the music and art relate to her emotions. This would tally with the understanding of the academic emphasis of the university sermon. Moreover, the worship services with a cantata were visited by more people than were ordinary worship services, which was also the case before lockdown, suggesting that some people predominantly attended because they enjoy good music. From a theological or church historical perspective, however, that makes relatively little sense. Church music and church art have played a significant role as agents of theological communication since the church's birth. Likewise, most sermons delivered in the online services studied were highly personal and emotional, and, in practice, the music and the art often interacted. The music covered the same theme as the sermon, as did the artwork and other imagery displayed during a sermon or performing a musical composition. From this perspective, the whole online worship experience constituted a unity where both mind and emotions were engaged and interacted.

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