Architectural Science Spatial Design and Planning Researches

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PREFACE

This book, titled "Architectural Sciences: Spatial Design and Planning Research," is an important step toward understanding the comprehensive nature of spatial design and planning research as an emerging interdisciplinary academic field. Rather than being limited to knowledge specific to the discipline of architecture, this field encompasses interactions among various disciplines, such as social sciences, environmental sciences, aesthetics, and technology. Adopting an interdisciplinary approach enables a more holistic analysis of space, considering its social, cultural, and technical aspects; studies that address the existence, social functions, and sustainability of space can only gain meaning within this type of integrated framework.

Spatial design and planning have been transforming the influence of rapidly changing environmental, cultural, and technological dynamics, especially since the beginning of the 21st century. With the rise of digital technologies, artificial intelligence and sustainability concerns, this field is becoming more complex every day and is leading to the emergence of innovative ideas that challenge the boundaries of traditional design approaches. In this context, the book brings together both philosophical approaches that examine spatial analyses in-depth and the development processes of modern architectural criticism, offering different perspectives to the reader.

This book highlights the value of interdisciplinary approaches that consider space not only in its physical form but also through its social, cultural, and aesthetic dimensions. Space is a multilayered

concept that brings together different disciplines, including architecture, social sciences, environmental sciences, philosophy, aesthetics, and technology. The topics covered in this book provide a comprehensive perspective on both historical and contemporary issues in spatial design, shedding light on the multifaceted structure of the field. Unlike traditional academic books, this multi-authored work is not limited to a single perspective; each author enriches the field with information and perspectives from their author's field of expertise. This approach brings together various ways of thinking about the social, philosophical, aesthetic, and technical dimensions of space, providing readers with a multidimensional understanding. By incorporating multiple authors, this book stands apart from classical single-author academic works. In interdisciplinary studies, multi-author studies broaden and deepen access to knowledge by bringing together different perspectives, not just a single view.

Each author’s expertise in various fields illuminates different aspects of spatial design and planning research, providing readers with a multidimensional perspective. This book aims to bridge knowledge gaps in the field of spatial design and planning by addressing both philosophical and aesthetic approaches, as well as contemporary issues such as sustainability and technology. The book chapters examine issues such as the place of space in the context of cultural heritage, urban identity, and sustainable design, the establishment of narrative and spatial relationships, and material evaluation in the product lifecycle, while also offering

creative and innovative solutions to current problems in spatial design.

The book chapters are examined within a wide framework, from conceptual definitions of space to aesthetic control, from philosophical critiques to the quest for cultural continuity in architectural education, from sustainable children's spaces to the impact of artificial intelligence on architectural design. This multifaceted content offers readers the opportunity to understand space from different dimensions, with each chapter providing unique insights and perspectives on the field of spatial design and planning.

In the first section, titled "Architecture and Philosophy: Concepts Definitions Boundaries", the philosophical foundations of architecture are handled and the basic concepts, definitions and boundaries used in spatial and building design are investigated. In the second chapter, "The Philosophy of Architectural Criticism in the Early 21st Century", the philosophical background of architectural criticism in the early 21st century is examined and the contributions of critical methods to modern architecture are evaluated. In the third chapter, titled "The Spatial Narrative and The Narrative Space in Architecture", how spatial narrative is established and how narrative space is created is investigated. In the fourth chapter, titled "Aesthetic Control in Architecture: Concepts, Definitions and Tools", the importance of aesthetic control in architecture, the concepts, definitions and tools used to provide this control and the role of aesthetics in the design process are discussed. The fifth section, "Searching For 'Cultural

Continuity' In Architectural Education" focuses on the search for "cultural continuity" in architectural education; the preservation of cultural heritage in the education process and its transfer to the future are handled. The sixth section, "Sustainable Awareness in Sustainable Children's Spaces," focuses on designing children's spaces in harmony with nature and sustainably; how sustainable awareness can be achieved in these areas is discussed. In the seventh chapter, titled "Brief History of AI in Architectural Design and Future Directions", the brief history of artificial intelligence in the field of architectural design is handled and how artificial intelligence can be integrated into design processes in the future is evaluated. In the eighth chapter, "Discourses and Practices on Housing in Istanbul During the Ottoman Modernization Process in the Early 20th Century", housing practices in Istanbul during the Ottoman modernization process are examined in a social context. In the ninth chapter, "The Role of The Architect in Disaster: Examining Proactive Approaches Through Shigeru Ban's Architectural Products", the role of the architect in disasters is handled and proactive approaches are evaluated through the architectural products developed by Shigeru Ban for disasters. The tenth chapter, "Historical Development of Orchestral Layout", investigates the historical development of the orchestral layout and the role of spatial design in this process. In the eleventh chapter, "Evaluation of the 'Material' in the Context of the 'Product Cycle' during Design and Planning Process", the evaluation of the material within the product cycle in the design and planning processes is handled in terms of its sustainable and functional use.

In the twelfth chapter, “A New Conceptual Proposal on The Problem of Originality in The Reproduction of Historical Form in Architecture”, a discussion is presented on the problem of originality in the reproduction of historical forms in architecture; the concepts of history and originality are evaluated from a new perspective. In the thirteenth chapter titled “An Overview of Sub-level Commercial Spaces on Bağdat Street”, the urban impacts and environmental connections of the sub-level commercial areas on Bağdat Street are analyzed. In the fourteenth chapter, “The Artistry and Ecological Synchrony of Planting Design: From Conceptualization to Floral Composition in the Case Study of Sivas Urban Park”, artistic and ecological harmony in plant design is handled and how plant compositions can be designed in harmony with nature is investigated through the example of Sivas Urban Park. In the fifteenth chapter, “Searching Colour Dimension of Anonymity in Architectural Design: A Review on 'Architecture Without Architects Exhibition'”, the color and anonymity dimensions in architecture are investigated within the framework of the “Architecture Without Architects Exhibition” and the role of these two concepts in spatial design is questioned. In the sixteenth chapter, titled “The Borromean Knot: A Lacanian Perspective for Architectural Design Theory”, the application of the Borromean knot to architectural design theory from a Lacanian perspective is investigated; a new understanding of spatial design is presented through the relations between psychology and architecture. Finally, in the seventeenth chapter, “Monumental and Historical Religious Buildings in the Contexts of Cultural Heritage, Urban Identity, and

Sustainable Design" monumental religious buildings built in Konya during the Anatolian Seljuk and Ottoman Periods are investigated in the context of cultural heritage, urban identity, and sustainable design, and the value of the buildings in these contexts is explained.

This comprehensive book provides a broad perspective on spatial design and planning research through contributions from various disciplines, allowing readers to explore the multifaceted nature of the field. Aiming to cultivate a well-rounded understanding of architecture and spatial design, it bridges historical, social, and technological contexts to offer readers an interdisciplinary viewpoint. It aims to provide the reader with an interdisciplinary perspective by building bridges between historical, social and technological contexts to develop a multifaceted understanding in the field of architecture and spatial design.

The book "Architectural Sciences Spatial Design and Planning Researches" will be an indispensable reference source for researchers, designers and students who follow developments in academic circles. The book aims to contribute not only to the development of spatial design and planning discipline but also to provide new perspectives to the knowledge in this field with its multi-faceted and interdisciplinary approach. It has a unique value in terms of providing a roadmap on how space will be perceived and designed in the future, especially in terms of guiding the new generation of academic studies. We believe that the book will be a valuable and original work in terms of providing an interdisciplinary contribution to the field of spatial design and

planning and especially in terms of guiding the new generation of academic studies.

We would like to thank all those who contributed to the completion of the book, thank Neriman Gül ÇELEBİ for carefully reading all the texts and making the necessary formal corrections, and for her unique support in preparing the typesetting, and thank the authors, the section referees, İKSAD Publishing House, and Prof. Dr. Atila GÜL who is the General Coordinator of the Architectural Sciences book series.

We hope our book "Architectural Sciences, Spatial Design and Planning Research" will be useful to readers.

10.11.2024

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Architecture And Philosophy: Concepts Definitions Boundaries

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1. Introduction

This research was written to discuss the problems that arise when two words that traditionally carry their meaning completely transparently are used individually and as noun phrases. The two words in question are Architecture and Philosophy, and its component is the noun phrase Philosophy of Architecture.

The word philosophy, which the Western world calls Philosophy and which is used in many different meanings outside of professional philosophers, is actually a verb, that is, the name and concept of an activity, since its first appearance in Western Anatolia (around 600 B.C. Thales and 500 B.C. Socrates) under a 2500-year-old pile of meanings. The ancient Greek and Ionian world used the same word for the "linguistic equivalent" of a concept, i.e. the word and the content of its meaning: Logos. In this sense, the "occupation" called philosophy is the love of thinking as a verb, or rather the bringing together of means and ends to think, to form thinking. To put it differently, it is to produce "words" and "ideas" about phenomena of human curiosity, natural events, social events, individual behaviors, and all observed activities, to attribute value to what is said, to choose the "right words" when speaking, to produce them if there is none, to take responsibility for regular, disciplined, intelligent and logical thinking, to account for everything that is said.

Perhaps the first and most important condition for thinking, let alone philosophizing, is to realize that it can only be done in so-called natural languages, and that diligence is the first condition here. Language was of course followed by logic, the truth of propositions, and of course the

establishment of mathematics and the disciplines of measurement (arithmetic and geometry).

When these founding principles, which were gradually forgotten until the twentieth century, returned to their essence as language, logic, and analytic philosophy, which had previously been presented as a special school of philosophy, they were scorned as an original field by those who philosophized without questioning the concepts in the millennia-old habit and then went on the road to complete extinction from the end of the twentieth century onwards. This tradition, which excluded analytical philosophy for a short time from its hiding place as continental philosophy, disappeared from the universe of Philosophy when there was no one left to fight for it.

In this sense, Philosophy has become an activity, a means of controlling the sine qua non-conditions of language, logic, and truth (Ayer, 2001), of speaking the right words, of making logical propositions, of the necessity for discourses to be orderly constructions, and not only for philosophers' own discourses but for all discourses, all discourses that produce reason and thought, knowledge and evidence. We also call this the second stage task of philosophy.

With this approach, let us briefly discuss the necessity of scrutinizing the polysemous concept that we call Architecture in today's Turkish, to discuss how it can be used in a field such as Architecture by saving philosophy from being a theorem that is drawn everywhere in “colloquial language”. Architecture is formed from the Arabic-origin word “Imar” and “Architect”, which is translated into Turkish with the suffix “lık”. However, as in the case of philosophy, the word Architecture or

Architecture is used in a very wide network of polysemy, and its meaning can be understood approximately according to the context of the discourse. However, this polysemy and its flexible structure of "wherever we pull it" does not allow for the production of a scientific, rigorous, and organized discourse in the field of architecture, nor an epistemic and philosophical control over it.

The word architecture is a meaningless word only when it is not used with noun phrases that specify the sub-domain of meaning (e.g. design, designer, products, buildings, civilization in general, or the built environment of a country or region, its use, history, etc.).

In the following development section, we will examine the debates on this issue and the content of recent writings. in this sense, selected writings from the literature will be presented, especially on the "undefinability" of the term and concept of Architecture and the difficulties of establishing a Philosophy of Architecture.

In the final analysis, our research will determine that the first difficulty in establishing a Philosophy of Architecture is that due to the multiple epistemic structure of the multidimensional, social, political, and economic fields called Architecture, it cannot be subject to a philosophical inference on the first plane, that is, a universal, generally valid, definition, and if it is, it will be an extremely ordinary and known definition (Gleiter & Schwarte, 2015). After this determination, he proposes that philosophy in the field of Architecture would be an evaluation of architectural discourses. In other words, a philosophy of architecture would be an epistemological tool that measures the coherence of the discourses produced in various fields of architecture and the appropriateness of the

methods, vocabularies, and epistemic tools used. The phrase “second plane” tool that we briefly mentioned above corresponds to this. However, the field of study to which this inference draws us is the responsibility of architectural discourses to develop scientific fields other than philosophy. The assertion that a philosophy of architecture can only be done based on the sciences of the fields of architecture, especially with their results is the main target of our article.

1.1. Architecture and Philosophy: According to the First Determinations, the Word Architecture and the Problems It Creates

The famous philosopher Simon Blackburn (Blackburn, 2012), in his search for an answer to the question of what philosophy is, identifies many topics and examines them one by one. The first four of these:

- Am I a ghost in the machine? (The search for consciousness, author's note)

-What is human nature? (Interpretation and the problem of representation, author's note)

-Am I Free? (Choices and responsibility, author's note)

-What do we know? (Virtual realities and representational productions, author's note)

Because of its direct relevance to architectural design and to start our topic, we would like to begin by addressing the statement in the first question, namely “the ghost in the machine”. Let us first consider the narratives that have been the subject of discussions in the field of architecture over the past fifty years.

Many architectural design theorists, and especially the Design Methods movement from the '60s to the '80s, have been dealing with the designer's

“mind” with the metaphor of a Black Box as a transference of behavioral psychology. The Black Box is a metaphor for the theory of not being interested in the designer's mind and what goes on inside it. It is a theoretical attitude and a principle of prohibition. According to this, mental processes cannot be the subject of scientific inquiry because they are inaccessible. Scientific inquiry can only be done through relational inferences between inputs and outputs that are observable and controllable. The adjective black is the adjective for this scientific prohibition. This theoretical attitude, which was the design counterpart of American cognitive psychology between 1930/1960, generally collapsed with the destruction of the foundations of its supermodel (paradigm), Behaviorism. In contrast to this, and response to the failure of this movement, the thesis that was worked on - after the mid-70s of the last century - was that this black box could be opened, or at least when it was opened, it could be a Transparent Box and that the new paradigm, or at least new studies, could be done with hypothetical models as proposed by cognitive psychology. According to the cognitivist/cognitivist theory that would grow stronger after these periods, observation, inference, and knowledge production are possible between inputs and outputs, between mental problem-solving models. Transparency is a metaphor for the theoretical models that oppose this.

It is questionable whether these theses, especially the thesis of making this Box transparent, have succeeded or not. However, we think that the multidisciplinary and very holistic thesis that we have been “developing” since our PhD thesis is an important development towards opening the Designer's mind. We can open a window into the phrase “the ghost in the

machine" and whatever we want to call it, toward the main purpose of this chapter.

1.2. Gilbert RYLE AND "The Concept of Mind"

In a surprising but convincing interpretation of a problem that has been debated for 300 years in the history of philosophy and the fields of philosophy of mind, philosophy of knowledge, and metaphysics, the philosopher says, somewhat polemically and sarcastically, on the subject of the book:

"With reservations, this book presents what can be described as a theory of mind. But it does not give new information about minds. We already have a rich knowledge of minds that are not derived from or subverted by the arguments of philosophers. The philosophical arguments that make up this book are not intended to increase what we know about minds, but to correct the logical geography of what we already know. Teachers and inspectors, judges and critics, historians and novelists, confessors and non-commissioned officers, employers, employees and partners, parents, lovers, friends, and enemies, all know well enough how to solve their daily questions about the qualities of character and intelligence of the person they have to make. They can assess their performance, evaluate their progress, understand their words and actions, discern their motives, and see through their jokes. They know how to correct their mistakes if they get it wrong..." (Ryle, 1966; 2020a; 2020b).

This modest presentation assumes that thought, that is, the mind, is composed of two separate entities, one is our physical body and the other is the mind-thought-spirit, which "somehow" connects to our brain and integrates with it, in the extension of the presupposition that Descartes

found “the only certainty that proves I exist is that I ask this question and am aware that I am thinking about it” while trying to give the least doubtful answer to the question of what is thought, which is the most fundamental issue in the last three hundred and fifty years of contemporary philosophical history.

There have been many responses to this presupposition, the metaphysical presupposition that has plagued philosophy until the last century, the most striking of which came from Gilbert Ryle of Oxford in this book.

This thesis, crudely called the single structure metaphysical thesis against Descartes' dual structure thesis, is in fact, as Ryle points out, not only a response to Descartes. It is, as the philosopher points out, not only a single thesis, that is to say, not only a single thesis but also a reduction of Descartes' thesis of the duality of soul and body, which is as widespread in “folk philosophy” as it is in Descartes', to “ad absurdum”, that is, to absurdity, that is, to reduce the answers to futility by eliminating the fallacies in the posing of the question.

As we will insist on later, one of the most difficult issues of philosophy is to question the validity of the “reflexive” “feedback - looking in the mirror” method of thinking “towards its methods”. The point of this sentence is not the content of philosophy's purpose and task, but the questioning of the concepts and rationality of the language that discusses the content in the first place. The first stage of this is the realization that the subject being answered, or the question supposedly being asked is either absurd or that the field of the answer is already limited and conditioned by the way it is asked. The Belgian philosopher Michel Meyer

(Meyer, 2008) has discussed this issue in many of his studies and has given it the title “problématologie”.

In this masterpiece of Ryle's, it is possible to see the widest expansion of this method and to trace the evidence for it, and in our opinion, it is very convincing. Although it is not the main subject of this study, we will refer to Ryle's testimony and support in three respects, inspired by his methods and seeking an answer to the question “What is Architecture in the First Determination”. Let us explain and unpack these three aspects:

In his research “The concept of Mind”, Ryle examines the subject under many sub-headings. Let us point out two issues that we will deal with about architecture and design.

We will first open the framework of the philosopher's arguments and then try to explain how and why they underline the dominant issues in architectural research. There will be two sub-headings that we will address in particular.

The first one is the problematic that takes first and second place in the book, the first of which he addresses as “Descartes Myth” and eliminates by characterizing it as a category fallacy, and the other is the chapters on “Knowing” and “knowing to do”.

There are the following sub-headings in the book, which are then explained in a fully analytical philosophy of language method:

- Will
- Emotion
- Changes And Events,
- Self-Knowledge,
- Sensation and Observation

- Imagination, Intelligence
- Psychology.

1.3. Category and Grammatical Errors According to Ryle

To examine their use in relation to mental states and to illustrate the category and definitional fallacies in them, Ryle generates 4 examples of fiction. The first of these is roughly as follows:

The person guiding a visitor to Oxford takes him on a tour of the campus, introducing him to various buildings, churches, this building, that courtyard, the administrative center, and so on. At the last stage of this tour, Ryle's virtual visitor asks the guide the following question “but where is Oxford University”?

In fact, he has seen the buildings, gardens, students, teachers, administrative staff, and the places where they work, but for him, there is no University structure, no geographically integrated place in the sense he understands it, whether it is Oxford or Cambridge. This is what Ryle calls the fallacy of logic and concept category.

In the visitor's mind, a university is a single building with thousands of students, classrooms, lecture halls, and teachers. However, these old universities consist of separate structures spread over a scattered geography. It also continues to develop by adding new buildings. Libraries, dormitories, and classrooms are in different places. Ryle's exemplary fiction is the conceptual illusion of the difference between the university space that the “visitor” expects and the spaces that function as universities. The visitor confuses function and space in his/her mind.

There are other examples of what Ryle calls category error. After watching a cricket match for the first time, this “new spectator” asks where the

phenomenon is called “team spirit” that people around him are talking about. But this is where the category mistake is, team spirit is in many things, but not in a physical geography, says Ryle. The novice spectator is looking for it here (hic e nunc) in a phenomenon right in front of his eyes. This time Ryle illustrates the same subject with the so-called British Constitution. The person who would make a misconception again asks the person describing the basic institutions of the British-United Kingdom, the parliament, the government, the palace, and the church, “but why didn't you mention the British constitution?”. As a Political Philosophy and even as a Legal Philosophy, the British Constitution is the relationship between all these “institutions”. However, a person who has categorized “the Constitution” as a physical book and its contents as a concept pattern in his mind makes a concept category mistake here and conceives the Constitution not as a relationship but as a physical text, as an institution, even as a place and phenomenon (court-building-judges, etc...).

Ryle, Descartes, and those who want to answer his question in the first sense, that is, those philosophers who do not perceive the “category mistake” of the question, do not realize that the mind - the soul - is not a kind of being because of this category mistake, or rather, they develop logics that assume that the soul and the body are the same kind of being.

Or Ryle and many other philosophers assume the existence of a “ ghost in the machine ” in the brain - or the machine in the body, or the little spectator behind the Cartesian stage observing the scene. This is not a “grammatical error” but a logical error. Ryle calls this a double life.

“...my aim is to show that radical category errors (...) are the source of the double life theory. It is from this argument that a person is mysteriously

represented as a ghost inhabiting a machine. For it is true that human thinking, feeling, and purposive action cannot be described in terms of physics, chemistry, and physiology alone, and must therefore be described in corresponding terms."

After this first observation, he goes on to explain what the word mind might be. After calling the category fallacy and giving examples, Ryle discusses the problems arising from the adaptation of these fallacies to the concept of intelligence or the category fallacy in the discussion of concepts such as volition and consciousness. In our opinion, the most robust argument is that the Mind is not a phenomenon or process, but a faculty or competence. To this end, in the second chapter, the philosopher invites us to discuss the logical and epistemological difference between Knowing and Doing. For him, "knowing that" and "knowing to do" are logically and conceptually different things. Mind in this context is a Know How-type concept, a competence, not knowledge or memory-fixed "things" that exist somewhere. For this, the philosopher gives the example of a chess player's knowledge and its dynamic mobilization in a game. In these examples, the mind is described as a Physical object which can be located within the brain.

In this sense, for Ryle, the content of the word mind is not "a set of 'facts' to be traced, a series of 'phenomena' to be observed, an observable 'process' with qualities like physical objects", but a competence, a potentiality, a "potentiality" to "activate", knowledge and skill to be mobilized, and even "habits".

To be intelligent in this sense is not to have real (material) qualities that exist somewhere in your brain, but to have certain qualities of competence

- capacities (...) The faculty of imagination is not to have images in your brain, but to be able to imagine in certain situations and when necessary". Since it is not one of the aims of our book to open all of these explanations, let's try to start the subject of Architecture by taking the first and second arguments in terms of the subject we are dealing with, starting from the Ryle trampoline.

1.4. What About Architecture

To paraphrase the second argument, we can say that the competence of the design faculty is a potentiality. Architecture, in this sense Architecture, and the design faculty is a competence, a potentiality. If we follow Ryle (the mental activity of the designer) "my mind is a separate entity and (not an object in a space) a form (product) of my body or a quality of matter" not a separate object and matter. A behavior, and an activity (walking, talking, etc.) are externally observed reflections of mental states. The mind is not something like the brain, but a quality of the brain, that is, of a material substance, in short, of the body.

However, since we have dealt with this issue in detail in our entire work, we will not go any further in this first stage.

When it comes to the first discussion, we will propose to establish a connection with the concept and scope of Architecture.

As it is known, the concept of Architecture can be interpreted in many directions according to the environment in which it exists, in this polysemy, people, buildings, cities, people, i.e. users, producers, financing processes, people and groups in political decision-making, perceptions, tastes, and changing conditions in the historical process, ruins, heritage, etc. Dozens of subjects are expressed with the word architecture. Not only

that, architecture is applied to a book of thought, a political decision, a law, figuratively in the sense of fiction by changing the field.

Even this very meaningful structure alone requires careful specification of the category of phenomenon, process, ability, competence, result, and because that is referred to when architecture is mentioned.

Because of this confusion of concepts and the great difference in principle between the careful specification of definitions and the confusion of concepts, the field known as philosophy has begun to be conceived and understood as a binary structure in ordinary public thought as Continental and analytical philosophy starting from the beginning of the twentieth century. However, these definitions only cover the "function" given to the word philosophy and its activity in the origin and development of a philosophy. It is the universal and, in the final analysis, the most accurate and clear-cut expression of the discourse produced on a knowledge, concept, and phenomenon, and the questioning of the logicality and correctness of the methods and inferences of the propositions of this expression. However, philosophy is done in natural languages. The first task of philosophy with natural languages is to study the meaning of natural language words. The second is to determine whether these propositions and inferences are true or not, and, in areas where the measure of truth is not applied, whether they are consistent and, if possible, universally generalized. In other words, philosophy is not "verbiage", speculation, or esoteric interpretation. Philosophy is not the interpretation of terms and concepts with other and even more undefined concepts. Philosophy, objectivity, truth,

Therefore, Ryle endeavors to determine what kind of phenomenon, process, etc. the words and concepts used refer to, and if not to them, then to what kind of place they point to. In this sense, no philosophy other than analytic philosophy can use the "label" philosophy. Traditional Greek philosophers have done nothing else. Plato's Socratic dialogues are precisely the kind of philosophy that analytic philosophy does: what is courage, what is justice, what is knowledge, what is number, and so on...

Pascal Engel (1997) explains this criterion of philosophy as follows;

(Philosophy) means that truth is a norm-value of our philosophical discourse, that it aims at it, and that it is something worth seeking. To state any proposition is therefore to admit that it is true, that it can be evaluated as such, that is, that it can also be false. To reject any notion of "cognitive truth" is to fail to account for our most basic practices of discourse and assertion. It means not being able to explain how our claims can be false."

1.5. The Term and Concept of Architecture and The Need for Philosophy

If we continue with this first methodological determination of Gilbert Ryle and analytic philosophy on the way to avoid the category fallacies of propositions and definitions by applying the evaluation criterion to the field of Architecture. We would like to further prepare our questionnaire by examining the attempts that philosophy or philosophers have made and deem necessary to be made on the word architecture.

Here again, as Ryle methodologically reminds us, let us go back to Aristotle and remind that his warning is not only a matter of grammar and dictionary terms in the examination of the term Architecture. Since we will deal with this subject in detail in the special section devoted to philosophy,

we would only like to remind you of a second philosophical method “for its importance”. This principle can be traced back to Aristotle; in fact, this method indicates that the category fallacy is not only a definitional fallacy, but that it will later be analyzed by other methods depending on the category and type of the subject under investigation. Aristotle's “genre” fallacy, that is, that different kinds of philosophical problems should be analyzed with concepts and theories appropriate to their genres. To give an example, concepts such as plastic forms, that is, aesthetic evaluation criteria, equality, and freedom, or concepts such as atoms and protons point to three different types of philosophical theories. In the Analytica posteriora, Aristotle calls this Metábasis eis állo génos (gr. μετάβασις εἰς ἄλλο γένος, to describe two ideas. The first one is the error of switching from one topic to another while analyzing or discussing another topic, and the second is the error of switching to another context. This logical fallacy that Ryle points out is a fundamental philosophical fallacy that goes back to Aristotle.

If we consider that the founders of philosophy pointed out 2500 years ago that the confusion of these non-identical concepts in philosophical surveys was a mistake that Aristotle would have labeled “pseudo-philosophy” because what Deleuze is doing by confusing knowledge and philosophy with art or value judgments is not logical. That is, it is not philosophy.

2. Concept of Architecture

In this section, we will examine how the wide range of meanings scanned with the word Architecture is handled and whether it is defined or not. We will mainly limit this examination to four authors. Among these authors, Hervé Gaff's suggestions, who lists the conditions of possibility of

architecture, aesthetics, and philosophy of architecture in the most competent way, will be a synthesis of three different texts. However, during this reading, we will also refer to theoretical references by opening conceptual brackets when necessary.

In this analysis, we will start with the introductory text, research developed in France within the framework of research funding and subsequently published as a book; this text is Chris Younes and Benoit Goertz (Younes & Goertz, 2006) and is a book on the scope and 'indefinability' of the term architecture, produced from a research project.

Other texts are Mickaël Labbé's Philosophy of Architecture, edited and presented by Mickaël Labbé (Labbé, 2017), and Hervé Gaff's (Gaff, 2012), 2007, two works, one of which is his PhD thesis Towards a Philosophy of Architecture, and the book What is an Architectural Work, which precedes it and is composed of problematics that easily connect to it. Our final and fourth witness will be Saul Fischer's Philosophy of Architecture, Philosophy of Architecture, Supplement to Philosophy of Architecture, Architecture in Ancient and Early Modern Thought, and Philosophy and the Tradition of Architectural Theory (published in the Stanford Encyclopedia of Philosophy), which is three intertwined studies.

2.1. Chris Younes and Benoit Goertz and the Scope and "Indefinability" of the term Architecture

The work we will refer to in this section will be from a book funded in 2004 and published in 2006. Younes & Goertz (2006), Definitions and Undefinitions, The Enigma of Architecture:

The book is based on a 2004 research report written by Benoit Goertz and his team under the direction of Chris Younes, a philosopher and lecturer

in architecture and urbanism, and funded by PUCA, an organization of the Ministry of Infrastructure and Urbanism.

2.1.1. Definitions, indefinitions

The reason for choosing this report and the published book as one of the attempts to define the word architecture is first of all that the subject of this report is an attempt to answer the question "What is the definition of architecture?", which was directly determined by the research tender.

The second reason is that it is an example (in our opinion, a negative one) of the forms and conditions of "doing" philosophy, a subject we have briefly touched upon above. This is because the research is handled with a different "philosophical" understanding and "technique" than the other two French studies we have examined.

This conception of philosophy is a direct witness to the "literary" and "esoteric" style of traditional French philosophy, of which we have given a rough sketch.

Thirdly, it contributes to the difficulties of defining the word Architecture, even if the empirical base of the "research", apart from its form and means, is quite vague and flexible, and even if epistemic criteria are not established for our subject.

Of course, if we apply the same evaluative care to this review as we do to the first reviews, it is useful to say that it is a rather negative example methodologically and epistemologically. In short, in our opinion, this example would be ordinary and inferior to the approach of Gilbert Ryle, who, at the beginning of the chapter topic, deals with the conditions of entry into the subject with very clear logical and linguistic criteria. However, the useful aspect of this book from our point of view is the

survey reflected in the second part (i.e. the definition of the architect and the historian of various philosophers and architectural theorists), which we must say constitutes an interesting determination as it is a proof of how far away from the evaluation criteria of philosophy and logic the definition of the architect remains and how widespread this mediocrity is.

Having stated that the subject is dealt with in these three dimensions, let us develop our arguments by adhering to this scheme.

From our point of view, this book and the research it is based on have been created with a "literature-based" approach to "philosophy" based on words and the polysemy of concepts. In this respect, it is a type of philosophy that does not fulfill the epistemic conditions of the word philosophy and of doing philosophy, a critical positioning that we will revisit in the last chapter.

In the examples that we will take below, as we have already mentioned, we will recognize that we are confronted with a type of "philosophy" that is speculative and esoteric, with concepts and phrases that are composed of plural definitions and meanings. In such a way it does not fulfill the necessary condition of doing a real logical and linguistically analytical philosophy, which is to test the truth of propositions after a preliminary study of the scope of the terms used. In this sense, since the discourses produced with this technique are not based on the careful analysis of the meaning boundaries and types of the terms used, which is a necessary condition for doing philosophy, and the grammatical structure, meaning scope, logicality, and correctness of the "propositions" created, the effort and the product can only be called "essay", not philosophy. This book and its approach are a "good" example of this type of essay" in this respect.

Both the theory section and the examples section of this book clearly reveal how far one is from the conditions of meta-philosophy set by the new generation of philosophers, such as Mikael Labbe and Herve Gaff, which we will examine later. Of course, since it is customary in France to call it philosophy in the past, it will not go beyond a kind of experiment that does not question itself, its methods, and most importantly, the structure of the "truth of propositions".

To reinforce this judgment, the book

We would like to proceed with short excerpts and examples from the two main sections.

The first one is a selection from the research group's article in the first part of the book, and the second one is examples of definitions from the writers, architects, historians, and philosophers whose testimony is used in the book.

2.1.2. The introduction and theses of the "Undefinability" research

Although the first part of this research is a synthesis, in many respects it is intended to be a text to deal with the diversity of the semantic field expressed by the word Architecture. However, as an independent researcher, this chapter is not a contribution to clarifying the issue, but rather to further complicating it and, in fact, making it undefinable.

. However, such a research does not seem to be able to avoid falling into a negative spiral, instead of turning towards an attempt to define the nature of this challenge with epistemic independence and detachment. The clearer the point of departure, the more circular the development and analysis section ends without concluding with a contradiction.

However, the initial assumption is quite clear; it is said that “Architecture is very meaningful in the beginning”, but instead of a theoretical deduction, it is a methodless accumulation that leads to chaos again. Instead of anthologizing each type of beer's meaning and revealing category and genre differences, the text seems to be constructed in the form of a pot pourri that reinforces crossings and polysemy. Various examples and references (images, buildings, space, atmosphere, style, flexibility, etc.) are cited for various meanings. In short, instead of scientific reduction, derivation, and grouping in every field, it tries to define, the text leads the concept to multiplicity, confusion, ambiguity, and “indefinability”. This implicit singularization and particularization are presented to the reader by implicitly confusing weak features with strong meanings. In the final analysis, instead of the conceptualization effort given to the research, we observe a development that can be said to turn into a thesis that defends its antithesis and argues that there really cannot be a definition of the term Architecture and that all efforts of any kind would be futile and unproductive.

Of course, this attitude is opposed (albeit implicitly) to the thesis that we aim for in our research and that we can prove its feasibility. Anyway, we cannot help saying that the fact that a thesis is implicit proves how far it is from scientific and epistemic concerns.

First of all, let us quote a series of uninterpreted excerpts from the text that the research team created as a synthesis.

1. “Raising the question of the definition of architecture in a broad sense at a moment when the idea of architecture is sometimes lost in the minds

of architects, where architecture is transformed into images, flattened on screens, 'Babelized' into endless towers"... (Younes, 2006. P.4.)

2. "(architecture) constructs the common space that Hannah Arendt refers to as the 'non-mortal homeland of mortals."

3. "the definition of architecture is not just the whim of a philosopher and aesthete".

4. "It adds something about the world and the 'sense of the Earth' (Nietzsche)".

5. "Architecture has an ontological experience insofar as it is connected to space",

6. "A nespace 'annihilating space' is a substance that consumes empty space by compressing it and empties all breathable air. The bad news of the extinction of space is heard everywhere today. "

7. "And as Ricoeur says, 'space is a perfect ontological sensation'.

8. "At the node of local, practical and theoretical traditions, architecture resists a descriptive approach, whether nominal (word) or real (thing), as well as a distinction in terms of science, technology or art, because it brings them. It does not allow itself to be reduced to any of these categories, since it is not merely an object of knowledge, an aesthetic object, a functional object".

9. "Architecture is constantly differentiating and postponing its own definition".

10. "Architecture is the diversification of the indeterminate sum of its definitions"

11. "The conundrum of architecture is not unlike the question that humanity asks itself these days when all the meanings it used to give itself

a horizon have been exhausted. The truth is that beyond the “death of man” (Foucault) and the explosion of the Cosmos and “representations of the world”, there remains an inhabited humanity and also a “World”. The exhaustion of meanings coincides with the awakening of the question of the meaning of the world unless we fall into a stupid nihilism that no longer satisfies anyone."

12. “Architecture, on the contrary, gains certainty and vitality when these fragmented perspectives come together - and this is when many voices rise to proclaim its dissolution or death.”

13. "The definition of architecture is its enigma, its long duration, its recording in a time that never ends and remains ours. The search for meaning in architecture, that is, the eternal search for its definition, is no different from the concern for “the thing itself” in its most concrete and vivid sense, that is, for the fate of our world. Of this statement"

14. "What is this architectural thing? Does it exist in the articulation of logos, topos, and aesthesis, since the spatio-temporal architectural experience directly engages the embodied form of being somewhere in a rhythmic openness? How can architecture today, confronted with the infinite conundrum of existence, respond to this double mandate to represent and give substance to a way of being in the world? What is architecture responsible for?"

15. “Our attempt to revisit the question of the definition of architecture may seem redundant, even childish, because everyone knows very well what architecture actually is”.

16. “We are rather trying to ‘pierce’ the past in such a way that the examples, the quotations, can be compared, following Benjamin's image, to sticks of dynamite coming to shatter a false peace”.

17. "Defining architecture as a practice of definition in itself. Architecture would be a “paras-texture”; it is enough to follow Aristotle: “‘limit’ (péras) has as much or even more meaning than ‘principle’ (arché)” (Delta Metaphysics, 17)”.

18. “Neither smooth, nor striped, nor perforated, ‘nespace’ is a kind of flat screen on which the city collapses. It develops in the suburbs, at the entrances to the city, and blurs the urban/rural boundary"

(and on page 10 Menon quotes Parmenides and Latin terms...)

19. “It is as if the ‘object’ called ‘architecture’ forces us into a radical perspectivism”

20. “Proximity, transition, borders, porosity, not otherwise, Apeiron, radical perspectivism, Quotes/Quotes-Architectural terms-‘Archibécédaire’.

2.1.3. What are architectural object(s), with various examples

-Can all buildings be considered architectural, from a small beach hut to the great Millau bridge?

-Is architecture only aesthetic or how can functionality be defined?

- How can architecture be defined in relation to time, space, and society?

- Is architecture always and necessarily “of anywhere”?

- Architecture

Can it not be utopian (out of place)?

Ukronic (timeless)?

Ustratic (independent of any social environment)?

If the answers to these are both those and those, how can a term called Architecture be comprehended.

-The scales of architecture?

- Can architecture not be built?

- Is it simulacrum architecture or not?

- How can style and style be described and conceptualized?

- How does style determine whether “Architecture is Architecture” or not?

- Is architecture a process or a product?

-Do materials help to define architecture?

-Architecture and heritage: Do the old validate architecture? Is architecture new or contemporary?

-How does “time” contribute to the definition of architecture?

The most understandable but debatable dimension of the presentation text is the question of what is understood by “Architecture”, which Chris Younes, whom we know from his other works, calls “ethnic”, and the thesis that there are 4 types of rationality in Architecture without distinguishing between subject and object is presented. Of course, rationality depends on a linguistic condition in languages as an “act of an agent”. However, as we reminded above, the French philosophy of a certain period did not pay enough attention to these areas because it did not adopt the Analytic and Language conditions of philosophy. Having made this warning, let us present the following passage to summarize it;

-***There are 4 types of rationality in architecture:*** "Architecture is not only logical, technical and ethical but also ethnic. If it is approved, it does not necessarily have to be definitively acquired.

These formalizations are the result of a singular structure resulting from individual but also plural appropriation, because this structure activates four types of specific human rationalities: Logic, which enables man to reason and think about the world.

The technique with which he works and transforms it.

The ethnic created by the social.

Ethics, which commands his desire and achieves freedom.

Architecture is not only technical, not only logical.

It is above all the result of the intervention of these four types of human rationality. Depending on the people and the object they have to analyze, these rationalities contribute to the definition to different degrees, less markedly, and therefore provide diversity in interpretations. This diversity depends both on the person and his or her background, and on the object and what he or she seeks in it, the references it mobilizes in him or her... Architecture cannot therefore be unique.

The ambiguous character of architecture derives from this intervention between different rationalities that create contradictions and obstacles to affirming what architecture is. The question then is to know which rationality is being challenged and mobilized to affirm or reject architecture. What kind of relationship is envisioned between different rationalities?"

The first part of the book concludes with these determinations, while the second part attempts to prove the complexity of the concept through various testimonies.

2.1.4. Testimonies, various definitions of Architecture from experts

The second part of the book consists of the compilation of the research. The compilation obtained here consists first of a selection of concrete and abstract dimensions of the concept of architecture with examples, and then of a series of definitions by various philosophers, scientists, architects, and theorists.

- **Definitions of "Architecture" by Architects:**

Alberti, Berlage, Boullée, Carlo Diller+Scofidio, Durand, Friedman, Gaudin, Gregotti, Gropius, Hammoutène, Hejduk, Herzog and De Meuron, Kahn, Koolhaas, Lapierre, Le Corbusier, Loos, Lion, Niemeyer, Michelin, Mies van der Rohe, Palladio, Perret, Riboulet, Rossi, Ruskin, Sant'elia, Schelling, Viollet-le-Duc, Vitruve, Von Meiss, Wrigh,t

- **Definitions of "Architecture" by philosophers:**

Agacinski, Alain, Baudrillard, Benjamin, Berque, Bouchier/Nys Deleuze/Guattari, Derrida, Dollé, Dripps, Girard, Guéry, Hegel, Heidegger, Hollier, Kant, Levinas, Maldiney, Nietzsche, Plato, Plotin, Schopenhauer, Taine, Valéry, Wittgenstein.

- **Other definitions (theorists, critics, artists, writers, etc.):**

Boudon, Didi-Huberman, Gilson, Goethe, Langer, Lurchat, Marx, Norberg-Schulz, Pennac, Sollers, Schelling, Umbdenstock, Vanessenki, Zevi.

- **Definitions from dictionaries:**

Quatremère de Quincy Article: composition "Nothing is more important to the architect than that, while composing, his mind should be constantly directed to the means of producing his inventions. " (Dictionary of Architecture) Monnoyer Jean-Maurice "Architecture: Art that treats space

as its subject, independent of a single plastic dimension (sculpture). The derived stylistic processes are also called “architecture”. In addition, anything that facilitates the organization or understanding of a given space. There is no art that traditionally has so little aesthetic autonomy. “ (Great dictionary of philosophy, directed by Michel Blay, Larousse/VUEF, 2003, article ‘architecture’) Le petit Robert ”Architecture: 1- The art of constructing buildings. ...”

In the first part of our study, we will refer to other sources that are among the researchers who questioned the network of meanings contained in the term/concept of architecture

2.2. Mikael Labbe and “Philosophy of Architecture: Forms, Functions and Meanings"

The second study that we will examine while working on this topic is compiled from Labbé's introduction and introduction of selected texts in his book Key Texts in the Philosophy of Architecture...(Labbé, 2017). However, the section we will specifically investigate is the introduction and introduction he wrote to his book and the discussion of the basic elements they contain. The book sets out its project and doubts in the title and introduction of the book as questioning the epistemology of the field of endeavor called the philosophy of architecture. From here, instead of defining a Philosophy of Architecture, it positions the reader as to what steps are necessary toward a Philosophy of Architecture. In other words, to some extent, in the texts he has compiled for this purpose, he announces that instead of a whole conclusion, he will align the perspectives of various writers and philosophers on architecture and what kind of a “thing” it is from various angles.

Since the texts in the book are not our first-hand subject, we will give priority to the framework drawn by the presenter of the work.

In the first determination and the subtitle of the book, M. Labbé defines his work as the philosophy of architecture, taking the three concepts that define this field, which he separates and connects with commas and thus complement each other, in the plural. “forms, functions and meanings”. Unlike the work we first introduced, the study begins with a framework of presuppositions. At the outset, we can only take it as a characterization of the heterogeneity of a “thing” defined as a field, and of its three different dimensions, by indicating that there are three different kinds of categories. With this good intention, the philosopher-author determines that he starts with the presupposition that he is talking about a product and a physical entity. Although it may seem inadequate in terms of definition, this “postulate” is a “correct” and “honest” (in the sense of researcher ethics) attitude in terms of determining the space and scope of the research. To continue, it is necessary to say that by architecture we mean an architectural product, a solid structure that contains space and can be used as a living space ... in short.

With this theoretical positioning, the author's questionnaire, after defining architecture as a physical structure, attributes three sub-qualities to it.

Architecture (as a product) is formed on the one hand

Another quality of the architectural (product) is function.

Architecture (product) is loaded with meaning.

However, we should make a brief digression here to point out that this positioning is epistemically incomplete. With this tripartite description, the author seems to exclude the fact that these three “separate” dimensions of

the object of research are together and in interaction, in a complex logical structure that cannot be separated from each other. Of course, this is a framework that will lead him to mistakes and shortcomings until the final analysis. To put it briefly, the architectural product is form, on the one hand, meaning and function at the same time. The problem is the existence of a deficiency in epistemic quality, which is the technique of organizing knowledge. This deficiency is further manifested in the ability to bring "different" "types" of fields together and work together, as Gilbert Ryle warns.

In other words, if we go a little further, by interpreting the commas in between (function, form, meaning) in a different way, we epistemically make a very different positioning when we say function, form, and meaning.

And we can add

This architectural product is a form on the one hand and a function on the other.

This architectural product is form on the one hand and meaning on the other.

This architectural product is a function on the one hand and meaning on the other,

An architectural product is form on the one hand, function on the other, and meaning on the other;

And none of these is autonomous. They cannot be separated, the slightest change in one will affect the others...

If we close the chapter and return to the research, of course, the complexity brought about by this multiple structure, which we have obtained by going

beyond the limitations made by the researcher, will open up more areas than the three elements and will turn the qualities of the architectural product and their crossover into an insurmountable ball of multiple problems.

For now, let us be content with the three characteristics or dimensions of any architectural product identified by the author.

If we take into account the type of philosophy and the aims and means of questioning as a category difference above, and since we accept as a principle that philosophy is the questioning or analysis of a "discourse" with a second-order meta-language, these first three areas defined as an object of philosophy (the questioning of the technique of the creation and development of knowledge) do not refer to ONE philosophy, ONE Philosophy of Architecture, which is said to address architecture, but to three different types of philosophical categories, which naturally opens the doors to philosophizing in completely different types.

Function and its philosophical evaluation is a field that belongs to the categories of Logos, that is, "evaluation" of the "True/False" type since it can be studied in the form of scientific knowledge (sociological, psychological, ergonomic, and cultural) that can be measured and questioned in the first determination.

The Form/Shape dimension, on the other hand, refers primarily to an aesthetic type of evaluation, and philosophical evaluation in this field requires very different criteria from the first. This field, which philosophy has been dealing with for two or three centuries, but has almost abandoned because it has not been able to develop it with sufficient maturity, also forms a complex cross-over relationship with the field of Ethics. If we

remind that aesthetic issues are at the same time (maybe basically only) "political and social", and if we add that architectural works include all dimensions of the phenomenon of "Time", it becomes clear how strong a theoretical and epistemic support an inquiry involving this dimension needs.

Since we will not develop further here how complicated to define aesthetics, especially in the field of Architecture, let us be content with this preliminary determination.

The category of meaning (Semantics, Semiotics, Symbolics), on the other hand, is not only a subsidiary or simultaneous field of the previous aesthetic category but also refers to different categories of definition and evaluation.

The author was going to seek answers to these problems with a theoretical model that was as holistic as possible within the philosophical movement to which he belonged; by working on a theoretical model of signification and aesthetics based on Nelson Goodman.

However, in the final analysis, the writings in this book and the support it receives can be characterized as steps "towards" not a holistic Philosophy of Architecture, but a Philosophy of Architecture that is aimed and (perhaps hoped) to be holistic. This effort and "modest goals" of the author and his colleagues is an approach that should be underlined in this respect.

So, the question that can be asked after reading this research and its references is whether there can be a Philosophy of Architecture, whether Architecture can be a question of Philosophy, or a subject of Philosophy. While expressing this, let us remind that even the uncertainty of the epistemic status of the concept of "Architecture", which describes many

fields on its own, is a harbinger that it cannot be a singular subject of Philosophy.

Therefore, the question is how the multiplicity of philosophical fields on this subject can be "contained" within a single philosophical field and what its content and aims will be.

In this opening phase, the philosopher is faced with the following difficult first determination. The philosopher either;

- "I will either say that these three are separate species and by doing three different types of Architectural Philosophy I will divide my object of research and examine it as separate ATOMS and at its limits I will hand it over to the other type of Architectural Philosophy or I will insist on its INTEGRITY and try to do a holistic Holist Architectural Philosophy". but although the acceptance of "atomization" is a humble and realistic attitude, it may lead to unsatisfaction due to its limits.

Rejecting atomization accepting Holism and insisting on integrity and unity would be an approach with a heavy price. By heavy price we mean (even if, like M. Labbe, we limit ourselves to only three qualities) that we have to consider each dimension separately, as well as the intersections, cross-cutting, and contradictions of each dimension with the others, and in the final analysis, the challenge of building a whole system.

Taken as a summary, Labbé's research will lead to two common basic conclusions.

1/Architecture is a philosophical object that is difficult to define,

2/observations suggest that architecture does not currently constitute a sufficiently mature field of philosophical research,

In short, in the Philosophy of Architecture, which is a field and a subject in a completely immature state, the main purpose of these studies is to determine whether the philosophy of such a field can be done, and if so, how it can be done and its preconditions. Even the positioning of the possibility of a Philosophy of Architecture within the conditions of philosophical epistemology can be a perspective of these efforts.

If we summarize the ideas emerging from M. Labbé's work before moving on to the texts to be analyzed next, we can highlight the following issues;

- the direction we are moving in is based on the idea of whether there is one or many paths 'Toward A Philosophy Of Architecture' and whether this can be hoped for.

-Because of all the ambiguities and categorical problems “Architecture is the most misunderstood and disliked art of philosophers (rightly so! U.D.)”.

-The philosopher who chooses architecture as a subject of research must first of all overcome “the extreme difficulty of determining the positive, unique and irreducible nature of the architectural object”, which is the starting point- and the conclusion - of the analysis that is called philosophy.

-The specific position of architecture, whether the discipline of architecture is among the arts or among the engineering disciplines, its ambiguity, its status of being both this and that (whether it is an art or a craft, a technique or a plastic object), is not only problematic and paradoxical, “to say the least”, but also complex.

What we will add to these points will make the problematic even more intractable. Let us put it this way; due to its chronic nature, architecture contradicts the achronic nature and goals of philosophy. Architecture, with

its social and relative structure, is structurally in conflict with philosophy, which is the search for universal qualities.

Considering these observations, according to Labbeye, although not explicitly stated, the philosophy of architecture is in a "premature" state and what can be done are departmental and regional-thematic philosophies.

Saving our response to this for the end of the chapter, let us take a look at the work of Hervé Gaff, who, starting from a similar argument, lists a series of epistemic conditions for the Philosophy of Architecture and sets the most convincing limits on the subject. However, before looking at this, let us take a look at the founding principles and epistemologies of aesthetic philosophy based on the epistemology of French analytic philosophy in the 1950s, in which Hervé Gaff was a researcher.

2.3. Two Dominant Theories of Aesthetic Philosophy in the Analytic Tradition

In France, the group of Roger Pouivet, Jean Pierre Cometti, and Jacques Morizot, who have established a tradition of thought on the aesthetic dimensions of contemporary analytic philosophy in France, have succeeded, especially since 1990, in building a whole new approach to replace traditional speculative and rhetorical aesthetics with a significant publishing activity (Cometti et al., 2005). In the course of this development, the general aesthetic studies written by the philosophers, either separately or together, gradually began to encompass more specific aesthetic fields and seem to have built a strong epistemological wall almost in front of other aesthetic currents, causing them to enter a serious process of decay.

This aesthetic philosophy, which developed in the late 1950s and whose mainstream was formed by the work of Nelson Goodman and Catherine C. Elgin, enabled other important writers of the field to be recognized and strengthened in the French milieu.

This aesthetic philosophical theory seeks to establish the metaphysics of a contemporary science-philosophy articulation which, on the one hand, adopts the main axiomatic presuppositions - the tools - of analytic philosophy, such as logic and epistemology, and, on the other hand, builds bridges with psychology and cognitive sciences through the postulates of "realism" and "naturalization". Considering that this was done in an environment like France and Germany, where rhetorical aesthetic discourses were the only philosophical "style", leaving rival theories unfounded, the importance of the distance traveled and the speed in time can be better grasped.

At the lowest level, these metaphysical assumptions are realism and empiricism. As one of the stages in the establishment of the epistemological conditions of the philosophy of aesthetics, this movement adopts the principle of symbolic productions and signification, the "empirical object" used by Nelson Goodman in his philosophy of art and aesthetics.

This presupposition has been characterized as an epistemic 'revolution' in the development of contemporary aesthetics since the 1750s, especially since Baumgarten and Kant's conception of the ' experience 'of art' as a 'subjective phenomenon'.

Pouivet says that the main paradigmatic of all philosophers of aesthetics up to analytic philosophy was based on Kant's "special subjective aesthetic

experience". He identifies this metaphysics as being at the root of all phenomenology, all forms of logical empiricism, and theories of cognitivism. Goodman, on the other hand, paradigmatically excludes subjective aesthetic experience and proposes an epistemology that concentrates on the purely symbolic content of works - their intrinsic character - and the meanings that symbols carry.

This metaphysical base, called Goodman's semiotics, has been thoroughly evaluated by Pouivet (Pouivet, 2006; Pouivet, 2007; Pouivet, 2014) as a "redesign of aesthetics".

"According to Goodman, what characterizes 'aesthetics' is not a particular experience, but the way symbols function. Aesthetics does not consist in questioning the correlation between a particular internal state or condition of the subject and a particular way of representing things. It examines how symbols mean and how they express meaning. This has the objectivity of relations. Their logical form can be precisely determined. Aesthetics, according to Goodman, is therefore concerned with a general theory of symbols. It is in no way concerned with experiences, ideas, representations, experiences, intentional purposes, and other impressions, or with mental or psychological entities. This is because symbols are concrete and material entities. This is what "meaning" means for Goodman. What interests him is the semantic relations of symbols to their meanings, the syntactic relations they have with each other, and the pragmatic use we make of them to understand the things that surround us. For him, this is the subject of aesthetics. "

Another aspect of the approach proposed by Pouivet et al. is that it differs from Beardsley's approach from other "aesthetic epistemologies in

accordance with the principles of analytic philosophy". From another point of view, analytic philosophy is not a monolithic philosophical movement, but a set of principles for doing philosophy, which means that the definition of linguistic elements must be made explicit, and the "truth conditions" and "logic" of the arguments used must be established in a narrative that will be ensured. Apart from this, the sine qua noncondition of the philosophical movement called analytic is that it applies the same analytical care to itself as it applies to other discourses, in other words, it applies its principles to its actions from a meta-plane, in other words, that it ensures its reflexivity. Apart from this, analytical philosophy is a platform where clusters of inhomogeneous theories are produced in various branches. In the field of aesthetics, it is very common to find many examples of this determination, that is, the existence of rival theories. In addition to Nelson Goodman's theory of aesthetics based on semiotics, Beardsley's theory is a theory of aesthetic philosophy that was to some extent simultaneous with it and gained widespread adherents but weakened after the end of the century.

Monroe Beardsley argued that the metaphysics of his theory is that aesthetics is not a theory written by philosophers but a type of discourse on aesthetics. In this regard, Pouivet says that although Beardsley practiced analytical philosophy, he was based on Kant and the presupposition of aesthetic experience of art and aesthetic products. In this respect, he states that although Beardsley uses a special method, he does not make an epistemological leap.

Beardsley begins with an ontology that prefers the term aesthetic object to the term work of art. And he proposes a direct method for the study of

aesthetic products-objects. He identifies roughly three levels of aesthetic discourse for them in this sense;

"For him, an analytical approach to the philosophy of art meant a critical examination of the basic concepts and beliefs underlying art and art criticism. Doing this kind of philosophy required clarity, precision, and a good vantage point from which to identify, explain, and evaluate arguments, but it left aesthetics as a systematic study as a real possibility. According to Beardsley, critical statements are of three kinds: Descriptive, interpretative, and evaluative.

Beardsley, generalizing from the discourses produced on “works of art”, proposes to characterize two types of discourse, descriptive and interpretative discourses, by the non-normative nature of their evaluative criteria (i.e. beautiful, ugly, good, bad), whereas he adopts the third type of evaluation as a presupposition only as a philosophical discourse since it has a normative kind of purpose. In this theory of the philosophy of aesthetics (consisting of the third kind of input), Monroe Beardsley identifies the key tools of the philosopher as internal and external evaluative references and “présentation”. He emphasizes the external means of evaluation, that is, the evaluation of the internal elements of a work rather than the explanatory elements arising from the relations of an aesthetic object with its social environment. Apart from this, the basic method of Beardsley's theory distinguishes between the “artifact” formed in the design of an aesthetic object and its presentation - and mental reflections - which are presented to the reader, listener, and audience for aesthetic experience and which will develop under many conditions and in different periods. According to this theory, an artifact is an architectural

drawing or the notes of a symphony that is the result of design. The starting point of internal evaluation is on this plane.

In his most influential work on this subject, Aesthetics, Beardsley explains the qualities of the aesthetic product as a "physical object" as follows:

"1-The aesthetic object is a perceptual object; it is a result to be perceived.

2-The same aesthetic object can be presented at different times and to different people.

3-Two presentations of the same aesthetic object may be different from each other.

4-The characteristics of an aesthetic object cannot be fully revealed by a particular presentation of it.

5-A presentation can be realistic; that is, the properties of the presentation can correspond to the properties of the aesthetic object.

6-A presentation can be misleading; that is, some features of the presentation may not correspond to the features of the aesthetic object.

7-If two presentations of the same aesthetic object have incompatible features, at least one of them is an illusion."

(Est: 46, 48)

Beardsleyin's theory is characterized as "instrumentalist" in analytic philosophy, which generally determines a realist epistemic framework. In short, this approach is epistemologically based on the theory of "models", both by philosophers of science and by philosophers of aesthetics. The method of "scientific model generation", which is useful to elaborate, is the "instrument", that is to say, the model allows us to describe the phenomena we want to explain, if not all of the phenomena we examine, and, if possible, to test the results by simulation. Some philosophers argue

that the model-building method is a different or opposite practice from scientific realism, which is called Realism. The notion of a Theoretical Model here is “the production of a scientific model suitable for limited purposes,” not the “Real” in the strict sense of the word, but a reduced version of it, a reduced model, for the purpose of explanation.

Beards' theoretical construct of aesthetic experience suggests that aesthetic experience should be rendered comprehensible and explainable by means of a model and that for this purpose the “internal structure” of the aesthetic product should be carefully, closely and systematically analyzed. These criteria of evaluation allow for the establishment of a clear, normative critique and aim to produce a representation that facilitates our understanding of the product. Beardsley's theory is the theoretical and philosophical underpinning of New Criticism, the movement of literary criticism that was to become influential in America in the 1960s (Beardsley, 1981).

- **Instrumentalism**

According to instrumentalists, a successful scientific theory reveals nothing known, true or false, about unobservable objects, properties or processes in nature.

Traditionally, instrumentalists argue that terms for the unobservable are meaningless in themselves; interpreted literally, statements containing them are not even candidates for truth or falsity. The most influential proponents of instrumentalism were logical empiricists.

Instrumentalism, which rejects scientific realism's ambition to discover the metaphysical truth about nature, is often categorized (in the language of philosophical circles) as anti-realism. However, it is debatable to what

extent such an inference, the linking of a commitment to the realism of scientific theory with a model, is an anti-realist characterization. Bas Van Fraassen, one of the theorists who constituted an important stage of Model epistemology, defined this kind of epistemology as empirical constructionism/constructivism.

Although there are many supporters and defenders of the theoretical structure established by Nelson Goodman in the analytic tradition, Pouivet underlines that this theory is losing the race to a certain extent and writes that the Kantian paradigm of "aesthetic experience" has made significant progress towards becoming the mainstream of analytic philosophy;

"If we need to explain the specificity of Goodman's aesthetics and semiotics, can we resort to the distinction between continental aesthetics and analytic aesthetics based on the classical model of opposition between continental philosophy and analytic philosophy?

In this case, I do not believe that this distinction is illuminating. Much of analytic aesthetics is actually in favor of aesthetics understood as the analysis of a certain kind of experience. This has been true since the emergence of analytic aesthetics in Monroe Beardsley's Aesthetics (Wreen, 2023). It is also true for Kendall Walton or Jerrold Levinson. And this is even more evident in this latest trend, which involves bringing analytic aesthetics closer to psychology and the cognitive sciences. We observe this, for example, among analytic aestheticians like Gregory Currie or Dominic McIver Lopes. And Kant is certainly a central reference among the most famous representatives of Anglo-American aesthetics, such as Roger Scruton or Robert Hopkins. The conception of aesthetics

that Goodman rejects is not only alien to analytic philosophy, but is triumphant there today."

2.4. HERVE GAFF and The Prerequisites for The Establishment of The Philosophy of Architecture

The publication line is What is an Architectural work (philosophically), (Gaff, 2007), which is the keywords of contemporary philosophy and published in the Key texts series. Hervé Gaff, a teacher at the School of Architecture in Nancy, completed his PhD thesis in 2012 (Gaff, 2012) and is currently conducting a Master's program in the Philosophy of Architecture with Roger Pouivet.

Due to the marginal scarcity of publications in a field that can be defined as architecture and philosophy or Philosophy of Architecture, these two publications and their aftermath have been prioritized to a certain extent in our research. In addition to these publications, we found it worthwhile to examine the text of the architect and philosopher Hervé Gaff, in a collection of articles entitled Aesthetic Epistemology perspectives and debates, edited by Vincent Granata and Roger Pouivet (Gaff, 2020, in Granata, Pouivet, 2020, p.171), in which the architect and philosopher Hervé Gaff explores why philosophy of architecture has not been established and what the conditions for its establishment are, to overcome the gap in the Philosophy of Architecture, among other aesthetic fields.

Hervé Gaff also identifies a realist-realist approach in which the establishment of a philosophy of architecture can be built around a concrete architectural product. Leaving our arguments to criticize this view for the end of the chapter, let us begin with a synthesis of the researcher's views.

However, we would like to point out that the grouping we will make below is not based on the main ideas of the text as listed by the author, but on the analysis we extracted from our reading (6 topics from A to F). Moreover, we would like to point out that we find it strange that these groupings and thematic are not ordered in any other way.

The positioning of architecture within the philosophy of aesthetics, which is a branch or genre of philosophy, is of course the first element to be underlined and questioned. If we adapt Ryle's or Aristotle's warning to this issue, we find it useful to start by saying that a prerequisite (i.e. metaphysics) should be set as a prerequisite for the necessity of a preliminary explanation of the presence of architecture in the analysis of an aesthetic problem, and with this explanation, the explanation of what kind of epistemological connection should or should not be established between architecture and art and aesthetics in general should have been made to prevent a category mistake... While we expect the research to address this issue to some extent in the 17-point framework it discusses, before presenting the propositions, it is worth reiterating Herve Gaff's observation, like Mikael Labbe's, that Architecture is the least addressed branch of Philosophy.

We can say that the conditions for philosophically addressing the problem of architecture are analyzed under the main headings of category of discussion and type 6; these are,

-the difficulty of qualifying/characterizing the concept of architecture,

- (by reducing a way of overcoming this difficulty) that the object of research of the philosophy of architecture should be the products of architecture, that this is a “useful” way of approaching the subject, and that

the philosophy of architecture is a discourse construct for the products of architecture,

-The necessity of establishing the relationship of architectural objects with the sensory system of all types of human perception,

-(as a proposal considered as a continuation of the previous one) the necessity to include the dimension of use and function in the perception,

-the possibility of architectural products by including not only the final work but also the process involved in its design and production,

The need for the philosophy of architecture to be completely independent of architectural doctrines and "theories" of form-making,

The number at the beginning of the propositions, which we have grouped under 6 pre-categories below, is the sequence number in the author's order.

Summary of the propositions

A-Description and field identification

1. Given the difficulty of characterizing what we call architecture, the a priori use of a neutral term such as "architectural object" seems appropriate in order not to pass judgment on the nature or value of such an object without prior examination.

The main object of research in the philosophy of architecture

1. The object of a philosophy of architecture should be architectural objects and, if their determinations and effects are to be considered, they should be related to these objects.

2. A philosophy of architecture should be applicable to any architectural object, without stylistic or doctrinal restrictions.

B- The other object of research of the philosophy of architecture is the description of the processes of perception

1. The perception of architectural objects cannot be limited to the sense of sight; it must take into account all our senses inclusively and dynamically.
2. The comprehension of architectural objects cannot be limited to sensory comprehension but requires an understanding of their structure and the situations in which the objects are perceived.

C-The problem of function

1. The purchase of architectural objects should be evaluated taking into account their use.

D-Design and Production process

1. The acceptance of architectural objects cannot be the only way to approach them; it must be accompanied by evaluations linked to their design and production.

The philosophy of Architecture must be independent of the relation to the doctrines of architectural "theory"

1. A philosophy of architecture may include elements of architectural theory but should avoid sharp contrasts that are symptomatic of doctrinal positions.
2. A philosophy of architecture can be grounded in architectural theory by carefully examining its concepts and propositions to guarantee their neutrality from a doctrinal point of view.
3. If a philosophy of architecture involves an appeal to or examination of positions of -isms arising from philosophy, or if it is linked to positions of architectural doctrines, it should be careful not to diminish these positions or the phenomena they encompass.

F-Methodological and epistemological problems of architectural philosophy

1. A philosophy of architecture should be precise about the return of concepts, propositions, or positions borrowed from existing philosophies.
2. A philosophy of architecture should approach architecture and its objects as similar in certain respects to other disciplines and other objects so that the understanding of some can benefit others and their characteristics can be identified.
3. A philosophy of architecture based on ideas or concepts drawn from existing philosophies should take into account the context in which these theoretical elements were developed and their specific application.
4. It should identify the foundations, theoretical framework, and concepts of a philosophy of architecture, thus contributing to making the philosophy of architecture a unitary field of research.
5. Philosophy of architecture as a field of research should include the diversity of architectural philosophies.

Hervé Gaff, after his studies on the conditions and "benefits" of a Philosophy of Architecture, seems to have handed the matter over to architectural researchers and historians to some extent, by determining how to overcome these obstacles and especially how difficult it is to establish a field called architectural theory. It is impossible not to share this. Our argument is on what kind of theoretical basis an epistemic structure can be for overcoming the difficulties in establishing an intensive working perspective on this. To put it briefly, a theory of Architecture (will it be holistic or articulated sciences as Gaff suggests?) is a prerequisite for the development of the sciences of the fields of Architecture. In other

words, a Philosophy of Architecture can only be a consequence of this, not a precursor.

One of the researcher's current areas of interest is Nelson Goodman's theory of symbols adapted to architecture, which, as mentioned above, is only one of the phenomenal fields called Architecture, namely the fields of Signification and aesthetic signification.

However, the most obvious blindness of those who largely view Architecture through the window of philosophy (as to some extent M. Labbé and H. Gaff do) is that "Architecture" is a Political, Legal, Technical, as well as Sociological, Cognitive, socio-cultural "intersection" of epistemological fields.

One such testimony is that of Saul Fischer, the last researcher we will examine below.

3.5. Saul Fischer's "Philosophy of Architecture" Research

Underlining the scarcity of research on Architecture in an open platform such as the Stanford Encyclopedia of Philosophy, as well as the limitations of addressing a variety of perspectives, we have found it useful to address an important survey in this source.

The next survey we will examine will suggest this direction, covering several points that should condition a certain philosophy of architecture. Saul Fischer's 3-chapter study in the Stanford Encyclopedia of Philosophy (Fischer, 2015) is, in our opinion, one of the most valuable studies on the subject, despite the above criticisms.

However, from our point of view, this very comprehensive study also has certain fundamental shortcomings. The main issue at the beginning of these shortcomings is the fact that a field called Architecture, which

epistemically, that is, as a concept, spans very basic philosophical fields and categories of question-and-answer types, enters the subject without putting the question of these categories directly and as the first condition.

The problem is actually what the contribution of a philosophical evaluation of the "subject" of Architecture, which is multidimensional in two respects, will be. This problem is often not only rooted in its subject matter. If one aspect of the problem lies in the bundle of meanings that the word "Architecture" encompasses, in both its physical empirical and ideal dimensions, and in the fact that these dimensions cannot be separated by saying both this and that, the other is what the discourse called Philosophy can shed light on this subject.

Amie Thomasson's (Thomasson, 2007; 2011; 2014) ontological questioning of philosophy in architecture is also valid in this regard; perhaps it is the "asking of questions that cannot be answered" and the "lack of a truth that can be discovered about the problem". Of course, the reality in question here is the universal and final analysis of reality to which philosophy contributes. Any philosophical proposition that points to its existence or location is in danger of remaining in a banal and childish dimension, and often such rough draft inferences are the questions and determinations that "every architectural actor" often asks.

The first question to be asked, then, is what kind of an endeavor it is for philosophy to "make a case" for architecture, and how and where a useful contribution can be expected from the technique of philosophical inquiry.

The conclusion we propose to draw from this positioning is the following; Both concepts of the noun phrase composed of the words Architecture and Philosophy are problematic. The noun phrase "philosophy of architecture"

therefore means what it means, what it aims at, for what purpose, what topics it deals with, and what the endeavor called philosophy can "give" in this field. If we want to use a metaphor, the only task of the philosophical tool, "generalization", would be akin to searching for germs with binoculars. A more "orderly" expression is the phenomenon of "plurality", which Thomasson has mentioned for the ontology of art, and which appears before us exponentially because architecture is an even more complex object of research. Since the phenomena of architecture are either "too specific" or too "general" for philosophical analysis, they cannot be answered, or their answers do not bring any benefit and do not go beyond the level of "declaration of the obvious".

Is the problem in "architecture" or in philosophy?

To put it in two words, the problem is not in Architecture but in F/F "philosophy". That is to say, philosophy is a frightening specter because it is an unknowable and extraordinary mass of unmovable reason. This question has of course been asked for two or even three hundred years, and the answer is that the discourse of philosophy is gradually narrowing its role in terms of meaning and instrumentality, that is, the "natural philosophy" that has been going on since antiquity, that is, the knowledge of all things, has slipped out of the hands of philosophy, first with physics and chemistry, then with psychology in the 19th century and even with sociology in the twentieth century, and philosophy has remained a field narrowed to technical and questioning fields.

To illustrate such an argument, even analytical philosophers are trying to explain the new relationship between philosophy and science:

-Philosophy is a discipline that works with concepts,

-That the sciences deal with empirical phenomena, of the distinction. In other words, in the final analysis, philosophy finds in this proposition a prescription for retreating and remaining in firm positions. So much so that Ryle, in the work we mentioned at the beginning of the chapter, dramatically dramatizes this issue; he uses a phrase like “we are at a stage where we have no time for anything other than a survey of whether or not we are in a surveying role”.

Of course, the analysis I have suggested above applies only to analytic philosophy, which deserves the word philosophy. Apart from that, the old and new continental philosophy, which is trying to live on a shoestring, has already left the sciences aside, but has taken refuge in the low fortress walls of subjective philosophy, which we call rhetorical and eclectic philosophical discourse, in the dogmatic belief that its main field of endeavor and skill is to deal with norms and values in the field of “morality, rights, law and art”, and to designate the field of axiological-values as its special function.

For Thomasson, the problem lies in the techniques of philosophy. We have two ways of studying architecture (or works of art with ontology or metaphysics):

-first, to divide general problems into specific sub-topics,

-or trying to give answers about the whole.

The latter choice, as we said above, may be no more than a reiteration of the sketchy. For example, Ingarden's four-layered ontology of the work of art is an unfortunate example in this respect, because it is naive and primary.

The remaining first option is in danger of creating a situation in which we multiply the philosophers' concepts and categories of analysis, as Ryle describes them, and even mathematically expand them to infinity.

The problem of philosophy in this sense is the “truth” relationship between the questions asked and their answers, which Thomasson underlines simply but decisively.

3.6. Epistemology of the Relationship between Architecture and Philosophy

In light of these criticisms, Saul Fischer tries to give indirect answers to the questions we have asked, although he does not specify them in his research project. Of course, in terms of the principle of analytic philosophy, the problem is to set a research project goal for this article. From this point of view, the article to be briefly analyzed in the Abstract and its side articles are an Epistemology of the Philosophy of Architecture. The research program clarified by Mikael Labbe and Herve Gaff as “Towards a Philosophy of Architecture” also applies to Fischer. However, he does not set this as a prerequisite but examines all aspects of the subject and what it consists of as a philosophical question. Before proceeding to the evaluation, let us present the summary of the research: "A comprehensive philosophy of architecture extends beyond even a generally aesthetically oriented evaluation to include philosophical reflections on ethics, social and political philosophy, psychology, and behavioral sciences. Architectural aesthetics in itself encompasses traditional issues discussed in the philosophy of art, as well as everyday aesthetics and environmental aesthetics. Such traditional topics include the nature of the work; the possibility of classes, genres, or types within the

domain; the character and roles of representation, intentionality, and expression; and the warranted foundations of criticism. Architectural ethics also addresses traditional issues, including the definition of rights, responsibilities, the good, virtues, and justice in architectural settings. Other aspects of the philosophy of architecture are concerned with social and technological aspects. "

1. In terms of addressing the epistemology required for the juxtaposition of the concepts of Architecture and Philosophy, the author begins by making the same observation that we have seen in previous authors: that Architecture finds little and hardly any place in philosophy. And, as this seems to be a symptomatic observation, he moves on to identify the philosophical dimensions of Architecture and tries to uncover a certain number of themes that characterize what we call Architecture.

Although this article attempts to provide an overview of the issues in the philosophy of architecture, it does not take sufficient “precautions” against the polysemy of the term “Architecture” and the web of meanings that it develops.

From a meta-perspective, it can be said that the author, on the one hand, presents the set of problematics in generality as a neutral third-person perspective and, on the other hand, makes a conceptual inference and grouping from the discourses developed “on” architecture. However, these two approaches are not logically equivalent. The author seems to have started to work without recognizing the impossibility of problematizing the term architecture as if it were an autonomous field on its own, that is, as if it were a field of expertise and knowledge like any philosopher, without making a distinction towards the field of multiple meanings and

phenomena contained in the term architecture. This creates such a difficulty that neither architecture nor at least philosophy is a field of general expertise for such a multidimensional set of subjects.

On the one hand, the "philosopher" does not have the legitimacy to speak or theorize in any, let alone all, fields such as zoology, astronomy, architecture, archaeology, and Roman history. For this reason, philosophy is already a different discipline from the sciences. The first question it faces is the division of labor between the fields of knowledge and expertise in philosophy.

On the other hand, the term Architecture, which is such a complex bundle of concepts, has to separate the phenomena in the field of Architecture and wait for each of them to be "theorized" in the context of their singularity and relations.

These two propositions are closely linked and relative.

The dimensions of the field of architecture require the theoretical and epistemic work of experts in this field. On the other hand, since they do not have enough "breath" to do so, the experts in the architectural fields expect this from the philosopher. The philosopher is not an "expert" in the field of architecture. This situation is a tunnel with two dead ends. The ball, so to speak, is in the court of the "experts" who will theorize the multiple dimensions of the field of architecture. Of course, it is a prerequisite that these experts are also epistemically equipped. In other words, Architectural Scientists have to have a minimum of philosophical and epistemic equipment.

Our author has responded to this issue, albeit indirectly to some extent, but at the beginning of his analysis, it is the announcement that his meta-

philosophical or meta-epistemological analysis is a summation of hundreds of studies on architecture and that it is methodologically chosen to find a common denominator. Confronted with the question “By what ‘right’ can you ‘put forward’ this point of view, as we did above, he faces the danger of being in a difficult situation (i.e. unclaimed and without evidence) at the beginning of his survey and even the danger of being declared defeated by the criticism of futility.

If we assume, for the sake of good intentions, that the author has drawn this conclusion from a reading of several works of architectural theory, history, etc...

For Fischer, the basic issues in the content of the concept of Architecture are listed as follows:

1-An art form,

1.1 design environment or

1.2.a product or

1.3 Architecture as Practice.

This first determination indicates that the concept called architecture, with all its 4 qualities, constitutes a great diversity of categories and concepts. However, in the questioning, the problems created by these category differences seem to have been relegated to the background.

2. The second question is the expansion of the quality pointed out in 1.2.; Architecture and its products. It is the question of the intrinsic quality of architectural products and how they can be differentiated from other “product types”.

3. The third problematic area is an extension of the second. When we ontologically reduce architecture to a “product”, the author reveals the

normative value criteria of that product, which find expression in architectural theories (discourses) as the Vitrüv trilogy: solidity, usefulness, and beauty. However, for educators like us who are involved in the field of architecture to a certain extent, the Vitrüv criteria are rough sketches. At least 1400 years later, even in Alberti, these criteria will be multiplied and detailed.

In addition, different categories and ontologies come into play, such as light and form.

4. The fourth distinguishing feature is the typology of architectural products determined by the noun phrase architectural products. The typification effort, which is widely used in the field of architectural specialization, especially among educators, is philosophically problematic, although it is done with didactic purposes and measurements of architectural objects. At least the logic of didactic typification and the problems of other types of typification are issues to be specified as the subject of philosophy.

How to deal with abstract groups of architectural objects such as function, structure type, morphology, etc. is a philosophical problem in itself.

5-The fifth problematic area of architecture is the most challenging area of architecture and perhaps the one that needs philosophy the most among its methods. Even the naming of this field is problematic in the first place.

5.1. The questioning of the possible “non-existence” of architectural products, works, or objects that cannot fall into this category (why can't they fall into this category?) or that do not exist at all instead of being, which is a question of philosophy.

5.2. Meaning and other language-like phenomena in architecture and its objects. This problematic area will, of course, imply a much wider field of questioning and especially philosophical and theoretical conflicts than it is expressed. At the very least, architectural aesthetics, which is the largest and almost the best known and most studied field, is broad enough to raise the issue of how the products of architectural objects are attributed meaning, how they are perceived as objects of meaning, how they are perceived as symbolic objects (Goodman) or the subjective experience and meaning of the work of art (Kant and its extensions).

6- Depending on the previous problematic area, our comprehension and judgment criteria for these products, including basic issues such as the formation of architectural objects, their loading with symbols, or their meaning as an opportunity and space of experience. Guarantee of our judgment.

7- Social and ethical-moral-political dimensions of the field of architecture

Apart from these first fundamental issues, the researcher announces the existence of many other problematic areas that are much more specific and important :

-such as the character of architectural drawing and representation; Intellectual Property Rights; and client-architect obligations.

In addition, the article is very comprehensive in its treatment of the architectural designer and ethical issues, except for one very important "omission".

This omission - *there are, of course, other areas that have been forgotten as well* - is that issues such as the design process, the designer, design

education, the professional and social dimension of design as a professional and institutional network are left out of the discussion.

However, either the Philosophy of Architecture will cover the entire field of Architecture or it will be a set of constructs that is limited in "specific" dimensions but has a framework for understanding the whole. In our opinion, this valuable study suffers from these important shortcomings.

Another valuable aspect of the research is that it differs from the studies that deal with architecture as a specific field around the concepts of aesthetics and ontological philosophy.

In this respect, the appendices of the article address two issues that are even more important than the article itself. The second of these is the necessity of establishing the relationship between the construction of a possible philosophy of architecture and architectural theories.

- ***Evaluation:***

In the final analysis, this article is symptomatic in many respects of the relations between Architecture and Philosophy, or more precisely, for those who work in the field of Architecture and take the necessary steps for its establishment as a discipline and strive to provide the conditions for it to become not only a professional practice and its education but also an academic discipline in all its dimensions. In this respect, it is as problematic as the article "The Indefinability of Architecture". The other two articles seek an opportunity for the two disciplines to come closer and contribute, to the issues that philosophy can bring to the discipline of architecture and, by extension, the problems architecture can bring to philosophy, and to examine the epistemological conditions for the mutual

contribution of Architecture and Philosophy, the other two seem to prove the impossibility of this.

However, the definition of architecture as a capacity, a competence, a potentiality, which is an important dimension of architecture and which Ryle underlines, are issues that can raise new questions about necessity, necessity, and possibility in modal ontology. Of course, the projection of this subject will benefit philosophy, not architecture. In a similar vein, the topic of "Modeling", which we will explore in more detail later, can be a powerful tool in the philosophy of science and epistemology in general, and even more fundamentally in the questioning of the intersections between artistic imagination and reason. A third and important area of contribution is Amie Thomasson's research, Ordinary Objects (Thomasson, 2007), that is to say, to some extent the objects used in architecture and place-making, where axiomatics, the starting point of philosophy, can be the site of questions of metaphysics and ontology. Again, many architectural phenomena exemplify one aspect of Thomasson's thesis, namely "simple ontology". However, this topic will not lead to metaphysics in the traditional sense, but to a more comprehensible analysis of existence through scientific and empirical knowledge, and may support the thesis of bridging the gap between scientific knowledge and philosophical knowledge, which is one of the most difficult issues of meta-philosophy.

1-Epistemological illusion:

The epistemological fallacy of Saul Fischer's research is a typical example of how philosophy can find a field of application when its thought patterns are confronted with the facts of architecture. From metaphysics to

ontology, from ethics to problems of definition, the method of this method is to transfer the echoes that the patterns of philosophy can find in architecture to architecture through the method of exemplification. In other words, it is no different from embellishing the previously established "patterns of concepts" by adapting them to examples from architecture.

This method is, of course, wrong and fruitless. If philosophy is a valuable method, philosophy will have to redefine its function to adapt it to architecture, or those who adopt this approach will have to re-question the endeavor they call philosophy.

The research results produced with this understanding are naïve enough to provoke responses such as "Are all these words for these conclusions" and "Is it worth it" by architectural actors, even undermining their trust in philosophy.

2-Mistake in philosophy and its function and methods:

The main text of Fischer's study suggests that the philosopher attempts to analyze a field outside his or her competence by adapting philosophical patterns and terms. This allows us to underline the principled impossibility of philosophy to philosophize about scientific and empirical factual fields of knowledge. Philosophy is not a discipline in which the factual and empirical knowledge of any field of knowledge is constituted and called "first order". Philosophy is, as we shall return to later, a second-order "commodity" field of endeavor. It is a discipline that a posteriori regulates and evaluates another discipline's production and organization of knowledge by following the rules of logic and mathematics, by establishing a system, conceptual framework, verification, description, and explanation languages.

If we apply it to architecture, a Philosophy of Architecture can only be founded on a Science of Architecture.

In other words, a Philosophy of Architecture, or metaphysics, or ontologies as its core, is the place to control the epistemology of the scientific conditions of this science, which will only be founded on a discourse of architectural science - partial regional or holistic - that has been formed and has reached sufficient competence.

Apart from this, the effort to establish a Philosophy of Architecture will not yield results other than the repetition of the known.

Two types of contributions that are incompatible with what we have said can still be expected from research on Architecture and Philosophy. First, if problems that architects cannot fully analyze, problems that they cannot define, areas of difficulty in discourse, or areas that are misinterpreted or incompletely interpreted are identified, they can propose proto-concepts and proto-philosophical expansions that warn and guide architectural research.

However, for this to happen, the philosopher must dominate the field in question and be knowledgeable enough to catch the appearance of discourses and phenomena in that field and the lack of concepts used. Ordinary architecture, architectural works, architectural products that are works of art, tectonic constructions, a tectonic excavations -troglodyte spaces- are just a few examples.

3. A third problem with Fischer and similar philosophical constructs is that an essential quality of the object of research, such as the design process, the reception process of the product, etc... is left out of the framework because it is an unresolved or contentious issue in their discipline, or

because there is no solution to this issue within the philosopher's main preferences, or because this issue is completely left out of the framework.

4. Another type of the third determination is to avoid the difficulty of characterizing all other complex domains of architectural objects with an epistemic construct and to concentrate on one feature. This tendency is to focus solely on the plastic and aesthetic dimensions of architecture, even presenting it as a single and dominant problem, without establishing a framework on the concept of architecture and its philosophical dimensions. Architectural Aesthetics, which is based on the products of architectural objects, is a mirage in the desert, a visual and intellectual illusion formed as a result of such a bias.

Another type of this approach is the expectation of knowledge and guidance for architecture from the types of philosophy that evaluate the plastic dimension of architecture. In the last 60 years, structuralism or deconstructionism has been the product of such a series of round-about misunderstandings.

That is to say, while architecture is subjected to an aesthetic axiology evaluation with its plastic aspects, normative new values in the light of the expectations that will arise from this, non-architectural theories such as postmodern cynicism, mimicry, deconstructionism have been able to feed the doctrines of architectural plasticity.

3. Philosophy of Architecture and Meta Philosophy As A Meta Method Of Analysis

Although we have underlined it before, it would be useful to remind the following two points;

In the discourses produced on architecture and education and architecture in general, the word philosophy has become used in two senses. Since language and concepts are a social, cultural, and professional product and we are born into them and live with them, many terms such as Philosophy have gained form and meaning under the influence of the Language environment, we are in.

In this brief introduction and warning, we will discuss the meanings of the word philosophy, which will be used later on, and the meanings with which it is not remotely related and should not be related.

1-The word philosophy does not refer to a doctrine that would lead to a moral, sanctioning, normative, and practical application. In other words, it is not a set of sanctioning-prescriptive - principles. For example, the philosophy of education as the outline and principles of an education is beyond our scope of meaning. For example, the phrase philosophy of life is meaningless and contains a category error.

2-The word philosophy is not the name given to the production of discourse using literary and rhetorical words, images, metaphors, and polysemous words. Philosophy is not the art of literature or poetry. Philosophy is not art. Philosophy consists of words and propositions that are as single-meaningful as possible and whose veracity can be questioned. The discourse, writing, etc. produced by a person who philosophizes as if he were doing literature - even if he wants to carry the title of a professional or amateur philosopher - is not philosophy, but essays expressing opinions. As Ryle reminds us, “Novelists, playwrights, and biographers have always been content to describe people's actions, words, dreams, grimaces,

gestures, and tones of voice in order to illustrate their impulses, thoughts, anxieties, and habits. ”

But such discourses are “meaningful” as essays or literature, and not in vain; they are not meaningful on philosophical criteria, and they are not philosophy.

Returning to Ryle, as Thomasson puts it: Ryle of course continued to hold the view that the fundamental work of philosophy lies in conceptual analysis, a task distinct from empirical work. He used conceptual analysis to reveal the 'logical grammar' of various kinds of statements, to distinguish meaning from meaningless, and to draw attention to category distinctions. The idea that the philosopher is preoccupied with the work of conceptual analysis that separates meaning from meaninglessness, rather than with any empirical investigation of factual matters, also famously appears in Wittgenstein's work. Even at the stage of the Tractatus, Wittgenstein set the main aim of his philosophical work simply as the separation of meaning from the meaningless”. Here the problem evolved into a new area of ongoing debate starting in the first quarter of the twentieth century. The difference and relationship between scientific knowledge and philosophical knowledge. The principled positions on the separation of science and philosophy established by the Vienna Circle and articulated by Carnap came in the 1960s, this time from Willard Van Orman Quine, another representative of the same analytic philosophical tradition, but one who would deal a significant blow to the positivism of the Vienna Circle. Carnap and his theory are based on a principled presupposition that emphasizes that science and philosophy have different substructures, different research methods, and goals. Thomasson, referring

to Ayer, explains the different contents of the two main branches, philosophy, and scientific knowledge: “Analytic statements (philosophy) are tautologies that make no factual claims about the world. They express foreknowable, necessary truths and are true only given the meaning of the terms involved. Empirical statements (scientific knowledge of the natural sciences), by contrast, are true or false according to both the meanings of the terms involved and the shape of the world; they are attempts to describe the world. Philosophy is a very different discipline”. It is largely concerned with the language relations between principles and concepts, with logic and formal logic, with the delimitation of statements using natural language, and with the falsity of propositions as true constructions of a proposition.

On the contrary, after Quine's criticisms questioning the basic principles of logical positivism with propositions that undermined the absoluteness of some of the principled differences of scientific knowledge, there was a transition in the conditions of verification of scientific and philosophical propositions. Nevertheless, the notion that the “object” of philosophical discourse was scientific discourse and action would remain in full force. Moreover, the power of philosophy to control the sciences (especially epistemology and the philosophy of science) was to increase. The point that changed was that the subject of metaphysics, which the Vienna circle had completely sidelined, in other words, would be repositioned, but with a very different function, from its meaning as the antithesis of classical and philosophical subjects. The new metaphysics in question here would be the name given to the core assumptions within the constitutive elements of

a philosophical theory and the foundations consisting of the presuppositions of the objects of inquiry under investigation.

In the 21st year, metaphysics in this last sense, that is, as axiomatic starting points, has been freed from exclusion and has taken its place in contemporary philosophy as a positive position and as an element of an integrated structure.

Even though the subject has been much studied, its conceptualization has for some reason waited for the 21st century. Let us present the subject, which we will elaborate on in the future, here as a preliminary image.

The theoretical framework that Sorensen's introduction to meta-philosophy facilitates by writing this topic “in language that students can understand” includes the following titles.

What is meta-philosophy for? What is philosophy? Philosophy, science, human and social sciences, The data of philosophical reasoning, The distinction between analytic and continental philosophy, Philosophy and the search for truth, What is good philosophy? What is philosophy for?

In short, the endeavor to distinguish the philosophical from the non-philosophical by determining its conditions and criticism can be called meta-philosophy.

According to the definition we have mentioned many times before, the definition of Philosophy, its aims and tools, and its fields of inquiry often point to an area that is difficult to define. However, this is especially difficult when philosophy is taken as an external discipline, not as a discipline with a method of inquiry that evolves, develops, and changes throughout history.

However, philosophy is not a discipline or a practice that is so difficult to define in terms of its aims, subjects, and methods.

3.1. Meta Philosophy against the nihilism of "undefinability"

Of course, describing philosophy as complex and indefinable, or as diverse and incompatible, untranslatable and incommensurable, is a way of concealing the criteria for distinguishing philosophy from what is philosophy by approaching philosophy from the wrong angle.

Overgaard (2013), in his introductory book, suggests approaching this discipline as a sub-discipline of philosophy. In this sense, he asks three fundamental questions that apply to many subjects: What is it, How is it done, Why is it done? Meta-philosophy addresses these questions to philosophy. It seeks answers to the questions of what philosophy is, how it is done, and why it is done. The philosophy of philosophy or meta-philosophy deals with these issues.

When we accept this simple scheme, he says that the question of what philosophy is can be answered with two different kinds of approaches, descriptive or propositional. Descriptive answer researches aim to make inferences from what has been done by taking sections from the history of philosophy: "Philosophy would not be what it is without the history it tells about itself. But it tells this history by assuming that the great philosophers did what philosophers are supposed to do".

The second method is prescriptive or what can be done approach: "The more philosophically interesting question, then, is what philosophy should be: Should it be part of the natural sciences, or transcendental thought, or conceptual analysis, or what? This is the prescriptive 'what' question. "

The second question is the method, that is, the question of how it should be done. If we use the same binary scheme, the first attitude is historical, that is, a description of what has happened. It aims at determining how philosophies in history have philosophized, it makes groupings and establishes schools and types.

The second approach discusses norms and principles for today and tomorrow in response to the question of how to do it: “The more interesting 'how' question is not how philosophers proceeded (...) or what methods they used(d), but how they should proceed, what are the right methods. What we should do depends partly on what we can do.”

The last question is to some extent the first question to be answered, why do we do philosophy, what is philosophy good for, and includes the answers that various schools of philosophy have given, and which are good and right to give. Again, using the dual metaphilosophical schema, the descriptive approach is the search for examples in the history of philosophy in which philosophers directly or indirectly answer the question of why I do philosophy. The what-to-do approach seeks to answer the question of what philosophy should do. Overgaard puts it this way: “It is the question of whether there is a good reason to do philosophy, whether there is a reason to think that philosophy has real value. It is a philosophical question, like many other questions about values and the power of reasons”.

The answer to this third question is of the second kind! The answer to this third question, namely, what to do today and in the future so that philosophy can contribute to humanity's “knowledge” of itself and of nature as a (more?) useful and productive (developing and to develop)

discipline, is to be found in the question posed and in the fundamental factors involved. These fundamental factors require the contribution of the questions of what kind of knowledge philosophy is, and whether it is a science, like the sciences, non-science, or together with the sciences.

It is a multidimensional discipline if we add to the two major branches according to the scope of the fields of inquiry, their aims and means, the questioning of philosophy itself, and its methods to fulfill this higher language task. Meta-philosophy is the possibility of describing this from a bird's eye view from above, and metaphilosophy, that is, philosophy's view of itself, is a subject of philosophy like any other, the choice of method is open-ended, but it can be said that the meta-linguistic approach is more appropriate to the approach in this book.

1/ Philosophy checks other disciplines and fields of knowledge with its language, logic, and methods, and applies the same methods to its method, language, and conditions of verification. We will propose to call the second function an inward function and the first an outward function.

Self-directed is reflexive, its activity is an inquiry into whether philosophy is using the tools that it necessarily employs, such as logic, language, and mathematics, correctly. At the end of the twentieth century, contemporary philosophy began to apply a method of establishing a higher discipline to prevent a logical circular reference to the questioning of philosophy and its sub-layers. The epistemology of philosophy or meta-disciplines of meta-philosophy began to be constructed to control philosophy's methods of knowledge construction.

This first type of questioning, that is, introspection, is the ethical deontological condition that constitutes philosophy's virtue. The basis of this ethics is to be faithful to reason-centered inquiry free from all dogmas.

3.2. Objectives and Methods

1- the search for “truth” in general, i.e. the search for the most universal and general qualities of phenomena, objects, and nature, with the elimination of context and special circumstances. In this sense, his descriptions are coarser and more generalized.

2- inwardly, to reveal the concepts he uses, in short, to describe them clearly

3-Applying this rule externally to the discourse in the area under its control

4- using simple expressions inwardly and outwardly (philosophy does not use the language of literature and poetry)

5. Making meaningful words and propositions internally

6-Separating meaningful words and phrases and terms from meaningless ones as an external tool (e.g. What is the meaning of life is nonsense, life and meaning are not in the same category).

7- internally, to question whether they use propositions, sentences, and terms that can be checked for correctness

- outside, that is, questioning the verifiability of the meaning of propositions in the disciplines whose discourse is analyzed
- Applying this principle of verifiability internally and externally, distinguishing meaningful propositions from meaningless and absurd propositions.

8- Contemporary philosophy also sets one of its aims as “the structure of thought”. However, this subject is about to cease to be the main subject of

philosophy alone, as it is increasingly being taken up by science. For example, issues such as awareness, consciousness, and responsibility are now the specialty not only of philosophy but also of neurosciences and human sciences (psychology).

9- Contemporary philosophy continues to examine ontological conditions, being, and the conditions of being, modes, and conditions of becoming - modalities such as necessity and contingency - at the center of its metaphysical presuppositions. However, metaphysics is no longer the realm of unknowns and external forces, but the preconditions of the internal construction of philosophy.

3.3. Can Philosophy Be Defined Briefly?

Philosophy, whose conditions we have listed above and which is feared to constitute a sufficiently complex set of conditions and which, in the final determination, "no one" claims to have an easy description, is not such a complex program. Philosophy is simply to seek an answer to a question and to give it the most general and universal definition "outside" the specific and historical conjunctural and contextual conditions. To do this, it adopts and applies the principle that the Ethics and Method of asking "Questions and Answers" to the question it asks should be explicitly preliminary.

This principle, as Michel Meyer warns, is the Ethics (one could also call it metaphysics) of taking care that the answer is not hidden and conditioned in the Question. This is both a moral and an epistemological obligation. As such, this ethical issue has developed as a new discipline defined for more than 20 years with the concepts of "intellectual ethics" and "virtue" epistemology.

A study that can be made based on this ethical principle is the question areas and answer areas of philosophy and what kind of criteria, if any, can be used to categorize and categorize them. This subject has been the subject of many typological studies in the history of philosophy over 2500 years. Let us remember that the Question and the Answer of the object of philosophical inquiry are of different structures. Kant, for example, expresses the task of the philosopher in terms of four questions: (1) What can I know; (2) What should I do; (3) What can I hope for; and (4) What is man? Kant's treatment of this philosophy not as a whole but under four separate headings is because the types of answers to these four areas are different.

From this point of view, although philosophy is a whole with its methods and principles in terms of inquiry and research, it can be pedagogically divided into three large areas where the answers differ. The reason for the pedagogical or heuristic aspect is that many questions can find reflection in more than one field or that philosophers search for connections in these fields. For example, Sartre, one of the most important representatives of continental philosophy, constructed the philosophy of existentialism, which answers the questions of what is a human being, what should I do, and what can I hope for in the same pot, connecting three of these questions.

1. Meta-philosophy; large divisions in the dialectic of expectation-answer-question dialectic, differentiation according to the types of answers and expectations in the fields of inquiry and research

While some philosophers have separated topics/topics and methods, most of them have proposed a division of topics + methods.

This implies a differentiation of the direction and methods that the philosophical endeavor will take according to the expectations and outcomes of a survey on general or specific topics. Although this is not a discipline, it is because it leads to different kinds of questions and different kinds of answers. The first conclusion that can be drawn from the topics that have been studied throughout history is that some topics have different criteria for analyzing and drawing conclusions from others. A piece of knowledge is either true or false, a sculpture is either beautiful or not, a law is either just or unjust, and so on.

This roughly translates into Logos (fields of knowledge), Pathos (art and aesthetics), Ethnos or Ethos (individual, society, rights, law, etc.).

After this first determination, a second and third orientation occurs.

2. Fields of philosophy according to the types of research objects and subjects

If sufficient limitation conditions are set and the philosopher is presented with sufficiently mature scientific and theoretical discourse material, the subject can be defined as a specific field of philosophy. If the conditions for the formation of the philosophy of music are such that the science of musicology is sufficiently mature and the construction of its sub-branches is completed, the philosophy of music on the one hand and the semiotics of music aesthetics and reception on the other can come to the agenda according to contemporary philosophical criteria. In traditional philosophy, on the other hand, instead of having a scientific base, a proto-philosophy will be constructed instead of this base, in which the philosopher will create a field that he does not know and is not an expert in with generalizations that he claims to be in the language of philosophy.

It is this principle of approach that distinguishes contemporary philosophy from speculative philosophy.

3. According to the Scope of its Subjects, i.e. the scope of the field and questions being questioned

3.1. Holist/Holistic approach

We can roughly divide life into two parts: one is to analyze everything about nature as a whole, and the other is to define areas of inquiry as specific areas and to conduct specific surveys of those areas. Holistic topics "focus on how philosophy deals with the universe as a whole, or at least with the big questions about life and the world. Such endeavors usually result in a very broad definition and may include both some natural sciences and some forms of fine arts and literature."

3.2. Atomistic approach in specific fields

However, the issues dealt with as a whole also contain differences that cannot be reduced to a single inquiry aim and tool. It is an ethical obligation to determine its place within the whole or its relationship with other specific higher fields.

Architecture art or aesthetics are one or more of these field definitions. Whether they include each other or not requires the preliminary questioning of philosophical inquiry and conditions the subsequent scope and results. For example, when we take architecture as an art and the essence of art as aesthetic values, we condition and narrow the questions we ask and the answers we expect. Philosophical endeavors that propose such positions have to defend it in advance and accordingly justify it with convincing reasons and Eliminist Eliminationist postulates.

Definitions that focus on the field of inquiry or subject matter of philosophy often emphasize its broad scope, in contrast to the individual sciences.

Because of these difficulties, philosophers have often tried to combine methodological and topical characterizations in their definitions. This can happen, for example, by emphasizing the breadth of the field of inquiry, distinguishing it from other individual sciences along with its rational method, and distinguishing it from fine arts and literature. Such approaches are usually more successful in determining the correct extension of the term, but they do not completely solve this problem.

3.3. Preconditions and dead ends of the mutual contribution of Architecture and Philosophy

If the above preliminary remarks on philosophy are of any use to us

1 - it encourages us to question not only the necessity of a philosophical investigation of architecture but also the conditions under which it is possible.

2-We emphasize that the creation of a field of philosophy of architecture will await the maturity of a “scientific field of architectural research”, as every field of inquiry does, as a prerequisite for the analytical philosophy of this discourse, which is constituted as a disciplinary field of knowledge. The main weakness of all these studies is the basic principle of analytic philosophy, which is that philosophy is not a discourse producer of a subject, but a second-plane activity on “established scientific and purportedly scientific discourses”. This determination is not a prohibition of the principle that philosophy produces knowledge equal to science at the first level, but the impossibility of philosophy to propose a

philosophical fiction, especially in multiple fields such as architecture. Philosophy cannot and should not produce knowledge in a field in which it lacks knowledge and skills.

Of course, these conditions apply to “normal” philosophy.

One of the primary principles of meta-philosophy is that philosophy is done in natural languages (such as English, Hindi, Turkish, Spanish, etc.). In philosophy, the logicality of propositions is primary,

Recognition that philosophy is not a type of discourse like literature, poetry, art, essay, narrative,

Being aware that philosophy does not produce the first kind of discourse (theoretical and scientific discourse), that it cannot produce knowledge about the field of study, but that it is the discipline of the fiction of the discourses produced, the truth values of the propositions, their consistency, the acceptability of linguistic and logical fictions, it is not to ask philosophy for knowledge and contribution that it cannot provide.

3.4. Three types of philosophical heresies to avoid; money, pseudo, fairy philosophies.

In this respect, we would like to end by underlining the three types of philosophies that have somehow become fashionable in our age, especially among architectural discourses.

The first one is the more innocent one, namely paraphilosophy, which is the name we give to the effort to produce discourse on fields of knowledge with philosophies and fiction in the face of the difficulty of scientific fiction. Since para-philosophy can be regarded as a proto-philosophy, it can be used as a base for productive work and can trigger questioning, so

we should distinguish it from the next genres with clear lines. Hence the term parascolaire, exercise.

The second is pseudo-philosophy, which is not as innocent as the first and is a type of verbal philosophy that does not meet the conditions of logic and truth, arguing that this is how philosophy is done. These are the architectural discourses produced by postmodern mimicry, which is now beginning to be abandoned in the field of architecture, but whose sediments persist. These are pseudo-discourses that use names such as Deleuze, Foucault, and Lyotard as keywords to make them easier to find, without knowing exactly why and for what purpose they invite them to architecture.

The third is the pseudo-philosophical discourses, which seem as innocent as the first illusion, but which also operate under the influence of the second one, and which are constructed by giving a philosophical reference in every second sentence, but which make literature, poetry, and rhetoric. Essays produced based on pedantry by giving plenty of references, usually because rhetorical constructions do not have sufficient impact, are the types of texts that appear to "DO philosophy". Their added value in terms of knowledge is as barren as the second type, and it is a type of text that has no background goal other than to feed the narcissism of the author.

4. Conclusion and Suggestions

Again and again, what is Philosophy and what is not, what is the need for Philosophy in Architecture, and a provisional conclusion

Throughout the entire research, the subject we tried to bring from the background to the foreground was to study the tools of the discipline called Philosophy (1), which covers a field as wide as the concept of Architecture

(2) in the whole of the social, cultural, anthropological, fields scanned by a complex and multi-meaningful concept we call Architecture.

In layman's terms, what is the need for Philosophy in Architecture? How can philosophical inquiry contribute to the field of Architecture?

Of course, the reason for such a vague statement is nothing other than what the juxtaposition of these two concepts can do.

To answer this, it is necessary on the one hand to open the word Architecture in its widest encyclopedic scope and on the other hand to hope for the benefit of the discipline called Philosophy, which is supposed to be multidimensional in each of these scopes.

When approached from this point of view, in the noun phrase containing the words Philosophy and Architecture, Architecture will be a field of activities, products, and beings, while Philosophy will be a field of thought production. In the noun phrase Philosophy of Architecture, which is the most principled of these noun phrases, it is of great benefit to be aware of this distinction, that is, the state of "non-identity".

In this case, it is equally useful to return to Philosophy and question what kind of contribution it can make.

In the most general sense, when we ask what the function and possibilities of Philosophy, what can it do, we can find two answers and contexts.

The first of these can be summarized as "comprehension, better and more comprehensive explanation, causality, correlation and correlation" in the field of Architecture, which is a field of human activities and products.

The second is the conception of Philosophy as a "polity", a "politic", a "personal morality", a supervisor and advisor of ways of doing and

behaving, entrusted as a guide to the principles of activity, norms, and ways of doing.

To put it colloquially, the first type of understanding of Philosophy ascribes to it an analytical function, while the second type of conception expects an operational, transactional role from Philosophy.

The first is a posteriori to phenomena, the second is a before phenomena. In other words, the two types of Philosophy have different chronological structures.

The first one talks about what exists, it takes it as its duty to talk, and the second one aims at what will exist.

Even though they are not epistemically symmetrical and transitive, since the words Analysis and Synthesis are easy to remember, they can be used to distinguish these two different Types Of Philosophy: Analytic Philosophy and synthetic Philosophy.

Reduced in this way, these two conceptions of Philosophy are two types of functions and expectations that cannot be reconciled in any way.

These two types of philosophical responsibilities are also different, so the first one is tasked with analyzing the past correctly, and the second one speculates about the future, and makes “free” suggestions in areas such as probability, likelihood, and “should be”. The first does not make suggestions but Propositions that can be tested for truth. The first is a philosophy close to the field of Science. In every field that is the subject of science (such as sociology, psychology, aesthetic phenomena, science and engineering, and all “human products and activities”), it is within the sphere of Constitutionality. The second type of philosophy, on the other hand, sees all fields as its sphere of legitimacy but expects relative leniency

in the responsibility for its words and proposals. In popular parlance, the philosopher is a philosopher, whatever he says is appropriate, expresses such a limited responsibility.

In this sense, in accordance with the Ethics of the Intellectual, it is useful to know that when using the words architecture and philosophy separately and together, one is faced with two important Pre-Acceptance tasks;

-When I say architecture, in what sense and scope do I use it?

-When I say philosophy, in what meaning scope and function am I using it?

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The Philosophy of Architectural Criticism in the Early 21st Century

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1. Introduction

1.1. Thinking Architectural Criticism in Historical Context

Criticism can be seen as separating at least two things by cutting them apart, determining their boundaries and associating them, and making sense of, evaluating and interpreting the problematizations created by this association. The transformation of the relationship between two things is also explained by the concept of "crisis" derived from criticism. Taken together, crisis and critique, which come from the root *κρίνω* (krino), encompass not only evaluation, judgment, decision, outcome of a trial, discernment and reasoning, but also a turning point of urgency and ambiguity, a transition from a previous state to a new state, and the intervention necessary for the beginning of a change in status. In the ideological context in which this transformation exists, a prediction, determination, speculation, necessity, etc. may be a cause/effect of external relations or internal dynamics. However, every reasoning to understand the crisis reveals the hermeneutics between explanation and understanding. Therefore, it is always critical to think about something (reflexion), judge and decide about something and determine what it is or is not. In this case an ontological difference emerges. The reflexivity of this questioning emphasizes the epistemological roots of Socrates' ancient Greek philosophy, in which knowledge of virtue and truth were not yet considered distinct.

From the practices of everyday life, a living and current event-oriented theory can emerge and then a comprehensive, objective and critical distance can be taken. If a critical theory, distancing and outsider's perspective can be achieved, resistance to the current practice can be

shown by determining what the actual practice is not in everyday life (negation). The ethics and performativity of critical behavior are in the intellectual and ideal dimension with the judgment of taste arising more from an aesthetic effect in the name of scientificity. The criticality of thought, on the other hand, in a textual encounter in a hermeneutical context, can be done with the contradictory alienating distancing (*verfremdung*, Gadamer) arising from the presupposition of the natural sciences in the way they deal with the human sciences in their interpretive experience. The mental connection between thinking, action, and language/text is highly intuitive and is fed by the unconscious. In this case, an internal and individual question of soul/ *ψυχή* (psychí) and identity arises. Moreover, the critic's identity is the subjection of criticism to the ideological production schemes of architecture or the architect-subject through everyday life practices. In this case, the problematic of performativity emerges externally.

In the context of architecture, what is expected in an intellectual reflection is the emergence of criticism in history or, more broadly, in time (remembering that the word *theoria / θεωρία* has its divine, fixed/ideal origin and universality of gaze and observation in all timeless circumstances), which emerges from the disciplinary self-reflection of architecture and the historical realization of practical distinctions. Critical attitudes become interrelated through the development of methods of historical reading. Thus, seeing change and transformation from different perspectives over time in terms of the discipline of architecture (it should be remembered that the word theory nowadays contains the agency of pluralistic perspectives), revealing, inventing, ideologizing and recording

the distinctive differences from other arts (historiography) generally describes the cycle of the relationship between theory, criticism and history.

The question "What are the critical limits of architecture?" is related to the awareness of its actuality and the unconscious acts of the conscious or the unconscious. Being subjected to another, whether unconscious or manifested in the experience of the self in mental reflection, is always open to change and transformation. Each actualization creates a crisis of identification and differentiation on the level of historical collective or individual consciousness with an ontological difference.

In the history of architecture in the 16th century, styles or design paths specific to a certain place and time, where there is no individualization, constitute the design language and tectonics of architecture with techniques and forms embedded in social memory. Behind the continuity of styles, geometric and tectonic structural correlations or articulations can be identified to support identity. The existence or schema of the "logos/word" that remains constant in repetition can be found. However, in the traditional world where the architect-subject has not yet been constituted, actualization is a pre-individualistic *memesis* that does not speak with self-consciousness as an individual, but mimetically produces and constructs. The 16th century Renaissance was the period when individuality was formed and the means of representation or recording were invented. The emergence of individual styles, on the other hand, also brings to the agenda the repetition and the law of intellectual and ideal structures. Until today, the discipline of architecture historicizes the forms of production that it records, archives and diagrams with memory

techniques. From the 16th to the 18th century, in the historical process of defining structural elements, the elements and components whose rational constancy is documented and drawn constitute critical reference sources and modern beginnings for new production practices.

With the Enlightenment of the 18th century, the idea of emancipatory creativity that is not subject to others opens up the possibility of an infinite production of knowledge in thought. In the transition to the power to produce and create, there is the belief that the ideal knowledge of reality can be obtained directly from non-existence in thought. Kant's criticism of the nature of knowing in the Enlightenment thought and tradition by setting a boundary between infinity and finitude determines the conditions of possibility for the judgment of the post-individual subject. The critical delimitation also called the linguistic turn, is the first sign that the style appropriate to the place and the spirit of the era (time) can become autonomous from the place (detachment from the space) and that the conditions of possibility that the architect-subject must overcome can be addressed with a subjective attitude in technology and thought. The idea of cautious and faithful progress and transcendence (*aufhebung*) and openness, which is also related to tradition, does not start from vacuum and nothingness, but reflects on and builds upon what is born into and historical, is disciplined by the finite critique of conservatism. Therefore, the first thing to be suspected and questioned is the ideological/political context in which the new synthesis remains faithful to its analogical origins while disjoining from the original and geographical.

From the early 19th century onwards, a formal and epistemic disjunction emerged starting with the use and choice of materials, and later transferred to paper, especially in the utopian designs of Russian constructivism, where the functionality or purpose/purposelessness of what is built is questioned. The tectonics that architecture produces naturally and intuitively without realizing it (e.g. machine aesthetics) is the conscious distancing of thinking from the outside of architecture and critical thought from itself. Particularly after the 1970s, examples of analogical approaches in architecture, mediated by history and technology, were replaced by the infinite and formal differentiations of digital iteration after Computer-Aided Design (CAD) from the mid-1990s onwards. The geometry of architecture changes and becomes topological.

2. Material and Method

Thinking architectural criticism in the historical (chronological) context of the notions of fragmentation, disjunction, exteriority, autonomy and self/otherness at the origins of criticism describes the distancing of architectural criticism from the linguistic and spatial fields of expression and representation on which its philosophy is based. Thinking architectural criticism across linguistic and spatial margins also describes the temporality of the contemporary ontology of architectural criticism, the temporality of its memory movement between its originary, factual, narrative and individual manifestations and its political perception, facticity, historicity, sociality and technology.

The epistemological character of critical distancing becomes evident in the transcendental critique of a theory of knowledge that revives traces or

determinants of knowledge that are rooted in its depths under the cover of identification and ideology, as described by Max Horkheimer (1947) in the "Eclipse of reason", as opposed to the immanent critique of a social theory of knowledge that emerges from praxis according to self-experience and discovers the phenomenon on its principle and its unused options (potentialities) buried in history. Furthermore, the search for a culture-specific aesthetic or autonomy emerges in the new criticism immanent to the work itself (*Werkimmanenz*) or, in Anglo-Saxon terms, in literature. However, while transcendent criticism denies the relative autonomy of cultural objects and forms to preserve the principle of integrity, it unconsciously and sometimes consciously collaborates with the power (the market economy, capital and state dispositives) that makes culture truly dependent. Immanent critique presupposes taking the other seriously. It means to enter into the logic of the other, to think critically against it instead of like it. Therefore, it cares about the particular in the universal and individualization.

Methodologically, it is aimed to identify the expressive/linguistic and external/spatial actualizations of the desire for liberation in the intellectual and conscious/conscientious origins of architectural criticism from the historical to the philosophical. The dynamics between a transcendental, particular and integrative direction and intention to activate change and transformation in theory and the singularizing awareness of criticism's knowing, discovering and transforming the immanent structure of the self keeps criticism alive.

From individualization to subjectivity, from particular to singularity, the liberation and autonomization of the architect and the architectural

discipline is the experience of the self or subjectivity in philosophy. On the one hand, the discipline of architecture is related to the political economy of the period and the distribution of power. The dialectic between the practice of architecture itself and its geographical, cultural, economic and political capital defines the psycho-social relationship between society and the individual in architectural criticism. A living topology emerges whose ontology is not static but emerges as identifications and differentiations.

Today's critical environment continues with the neo-liberal cycle of production consumption and management, where each point of view emphasizes its validity and the diversity and multiplicity it creates. Following the notion of governmentality (Foucault,2015), which is a critique of capitalism, algorithmic governmentality, the basic ideology of neoliberalism, transforms the individual to serve the organization through technologies that control the application of algorithms. It automates individuals and makes them part of the collective identity. Algorithmic governmentality, even though behavior is developed based on the subjectivity of the individual, closes off the ideas of individuals by limiting them to the context in which they are located, thus leading to the destruction of shared experience. It tends to capture attention in favor of personal interests. Thus, individuals will only be exposed to information that reflects their intellectual framework without being exposed to different views and their potential can be discovered within this framework. At the same time, personal data, which is effectively used in the analysis of decision-making processes, as data collected through hyper-synchronization technologies, provides sets of future-oriented

predictions and behaviors. Rather than statistics and its average sum, it is about a personalized "algorithmic governmentality" (Rouvroy & Berns, 2013).

In this age of complex data networks and the transfer of the faculties of the mind to the machine, the complexity produced by digital technologies makes it difficult to distinguish between signs and objects. This closure created by digital technologies can be confronted through the mobilities of critical struggle (Rouvroy & Stiegler, 2016). This struggle is the production of divisible individuals, the total disconnectedness of hyper-synchronization, the indifference that emerges, and the cause-and-effect relationship that indifference establishes with indifference.

Recalling the philosophical origins and grounding structures of architectural criticism offers a perspective for understanding and describing the contemporary of early 21st century architectural criticism. To explore mobilities, it is necessary to methodologically move back from the historical to linguistic possibilities and spatial thinking, to understand the praxis of the theoretical and critical relation of the phenomenal and expressive to memory and its representations in the thought of the self, and to discuss the relation of architectural criticism to contemporary technologies and governmentality. What is critical in the technological is the transformation of technical knowledge, or that technique is not an external knowledge but a type of social knowledge that was previously recorded. Technical knowledge has already been recorded, socialized and externalized through the experience of many craft activities by different subjects. Technical knowledge is internalized by individuals in experience.

The research identifies the discourses of early 21st century architectural practice in the context of the neoliberal economy in which the belief in theory, history and criticism has been shaken in the globalized world as of the end of the 20th century. The new conditions of the critical attitude that constitutes the dynamics of the theory-practice relationship in architecture are evaluated. Through critical distancing, balanced political agency is identified in the affirmation of complexity and awareness of uncertainty.

3. Findings and Discussion

3.1. 20th Century Architectural Criticism's Turns in Linguistic and Spatial Margins

Architectural criticism is initially an intellectual endeavor and a means of historical development towards a specific agenda. In the objectification of history with the consciousness of history, the developmental arrow of the modern moves with the belief that history can organize life and cities under the visionary, designing and shaping hegemony of architecture by creating utopias in the minds in a linear and progressive direction. From the period of modernist architecture until the Second World War, the traditional/conventional and future-oriented, anxious and conservative attitude of the historical from the past is ignored in the urban context. In the context of architectural tectonics and design, the tense relationship of modernity with tradition, which is also characterized as the crisis of modern architecture, reaches its peak with the "international style", which is also expressed in the manifestos of the CIAM congresses after the World War II under the leadership of Philip Johnson. However, against the claim that style dominates structural form and that the

international style is a universal form of architecture, there are analytical inductive approaches that style emerges from structural form, tectonics and geometry. In philosophy, intellectual approaches and decisive attitudes such as structuralism, cybernetics, etc., which emerged in the 1950s and were characterized as a linguistic turn, emerged.

The debate on form and style later grounds the onto-politics of post-World War II architectural criticism. In the discussion of form and content/meaning, the implicit meaning of modernism is structurally embedded in technological and functional form and is the result of tectonic culture. Therefore, the knowledge of praxis is not subject to a formal signification in the historical development of architecture, which is the product of reason. Historical consciousness marks the architectural knowledge and practice produced according to the needs of social production through the instrumentalization of reason with the ideology of meaning. Architectural consciousness and criticality, the ability of architectural and urban meaning to objectify constitutive and cultural production, architecture and the city to be linguistic and its expression to be meaningful. After the devastations of the World War II, in the attempt of the political economy reconstruction of the world, with the reappearance of historicist approaches and culturalism, architecture and the city, as objects of communication and mediation, are seen as linguistic and acting as a sign.

Ferdinand Saussure, the founder of linguistics, describes language as a system of simultaneous signs (langue). Signs form an interconnected structure. This position then argues that texts and representations can be transferred to all kinds of human sciences on fundamental

epistemological conditions beyond the philosophy of language, in the belief that language represents the limits of language and the limits of thought. It is impossible to access authentic reality independent of language. In this context, language is constitutive.

In linguistics, following the analytical approaches of the Vienna Circle, there are positivist and deterministic searches for language/logic and symbolism, and in parallel, in architecture, despite the alienating attitudes of modern architecture, there is a phenomenological understanding of language, which is described as the living world (*lebensveld*), fed by 19th century romanticism, cares about the continuity in the modern without losing the valuable aspects of tradition in the historical, and is aware of the reification (Bewes, 2002) and automatizing effect. This approach takes into account what comes from within life, the phenomenological, with its architectural atmosphere and lifestyle, and despite positivist determination and the search for semantic meaning, it takes into account uncertainty, the unconscious and desires, constructs the living itself (building) and is interpretative.

Roland Barthes and Jacques Derrida imply that historiography can only access the world through textual and linguistic mediations and documents. The semiotic turn of the 1960s, grounded in linguistics, treats actors as the result of the mediation of linguistic codes of historical facts, emotions and acts, including the personal dispositions of the historian. In the construction of reality, the subject is seen as an interface between discourses. Persuasive rhetorical patterns of subjectivity in discourse point to the "reflexive turn". In contrast to the claims of interpretive and sacred systems of meaning, man-made reality is now reconciled with the

fact that representations generate reality. The symbolic strategies of social power relations are an expected goal to be deeply analyzed and uncovered in the sphere of cultural representation.

In cultural studies, discourse as an expansion of the linguistic turn (starting from the word) is now liberated from its unilateral fixation on the structure of language. The focus is on performativity and language acts such as parole, the speech event, ongoing speech, communication and body language (gesture). Agendas of all kinds - cultural studies, everyday life, history, etc. - set individual agendas above all that language limits and denies. The traditional tendency of social anthropology to see social anthropology as a complex whole is in interpretive cultural anthropology a self-interpretive engagement with systems of symbols and signs that turn in on themselves.

Through the emphasis on language, signs and symbols in the discourse of the hermeneutic turn, which is an intercultural extension of the hermeneutical field derived from continental European philosophy, the problematic of accessing cultural meanings in unfamiliar cultures, such as understanding (*verstehen*) and sharing one's feelings (*erführung*) can be objectified. Culture is seen as historical acts and texts. The reading of historical reality through a cultural approach raises the critique of culturalism and textuality or "text as culture" (Bachmann-Medick, 2016).

In the early 20th century, especially between the world wars, the authoritarian, judgmental and order-establishing roles of architectural criticism and critics, divided into design-builders and historian-critics, changed. Realist criticism began with Manfredo Tafuri's critique of capitalism in the reflexive thinking of the discipline and practice of

architecture, between the hegemonic structure of the capitalist system and the banality of the living world, in response to the speculative opposition between the critical historian and the criticized architect, and the question of how to actively and actually "critical architecture" within the system (Tafuri, 1976). Later on, the question "can the discipline and criticism of architecture become autonomous despite the historical and traditional?" points to the experience and perspective of subjectivity in the continuation of this dilemma. Those who remain at the level of representation and those who are capable of building seek reflexive ways of being autonom from the discipline of architecture. Therefore, as Hays argues, critical architecture in architectural practice is positioned between cultural hegemony and the autonomy of form (Hays, 1984).

In particular, Manfredo Tafuri's holistic approach, which puts architectural criticism in a historical context and relates it to urban space and establishes the urban form/content relationship, can help to understand the neo-liberal onto-politics of early 21st century architectural criticism.

3.2. Criticism and Theory of Architecture After the World War II

The relationship between history, theory and criticism in architectural literature has existed since the emergence of "architecture" departments in professional schools, from Jacques-François Blondel's categorization of the field in the 1750s to today's AIA and RIBA protocols.

The main critical attitude is the discussion of the autonomy of the point of view in the theorization of architecture in a historical method of reading. It is also related to the critique of the ideology present in a historical research and whether this critique is manierized or not.

Manfredo Tafuri aims to actively inform practice, from the claims of autonomy prevalent in the discipline of art history since the 1900s to the claims of "history" and the introduction of theories from disciplines other than architecture, from Giedion to Zevi, by rereading the discipline of architecture. According to Vidler (2018), Manfredo Tafuri (1966) first tried to solve the disciplinary problem between architectural history and theory with his article "L'archtettura del Manierismo nel Cinquecento europea". In this article, "Mannerism", as defined by art historians from Dvorak, Pevsner, Panofsky and Wittkower, is described as "a unified style of the age". By a transactional critique of history, as distinct from a periodically integrated method of critical reading, Tafuri (1980, p.141; Vidler, 2016, p.239) means ".... an analysis of architecture (or of the arts in general) that has as its object, not an abstract survey, but rather the “projection” of a precis poetic direction, anticipated in its structures, and originating in programmatically finalized historical analyses."

According to Vidler (2018), Tafuri incorporates and exposes the underlying tendency of art historical studies to seek a future for the present in history. He tries to distinguish the role of "real" history from the role of "operational criticism", a term that encompasses all attempts to interpret history teleologically. Establishing spiritual, speculative and intellectual correlations between events in history, which develop mostly independently of each other (non-causally), and presupposing that there is a distinct ideological attitude (manner) and teleology (absolute end and ideal form) between them, poses for Tafuri the danger that theory remains superficial, formalist and subjective.

From his Teorie e storia dell'architectura onwards, Tafuri (1968) consistently opposes what he calls operative history and criticism. Operative criticism distorts the historical record of the past to validate and predict present practices and designs the past for future projection. Without relying on the abstraction of the principles of the past (*arche*), its accuracy is measured according to the results obtained by the operator himself. As if drawing attention to the speculative and misleading effect of the historian's memory, he emphasizes the need for proper preparation to make phenomena effective elements of the present without experiencing "reversals against time" (Vidler, 2016,p.241). Reminiscent of the "reversals in history" also noted by Adorno, reversals against time are an attempt to see the principle/eidos and logos/word in the form of the historical, which negates the superficial form readings of historicist approaches. Tafuri argues that historical distinctions and differences must be "really" and sincerely explored through deep and rigorous reading to overcome crises and dilemmas.

From the 1980s onwards, the empathy for space and spatiality continues as the belief in the progressive, developmental and evolutionary spirit of the 18th century enlightenment and historical reason gives way to the logic of simultaneity and juxtaposition. However, the instrumentalizing and marketing strategies of the capitalist cycle of mass production and populist consumption, and the populist and historicist approaches characterized as the post-modern period after the 1980s, caused the political economy of criticism, which has evolved from "architectural criticism to critical architecture" with Tafuri since the 1960s, and its relationship with reality to be questioned again. Drawing on the deep

structures and typological investigations of the historical in continental Europe, architecture is the praxis on which Henri Lefebvre's (1992) social formation of intercultural space as "the production of space" is based on the prescriptive, limiting and signifying tectonic language of life, power and class relations. The lived space is the geographical environment of social relations.

Thinking about space removes the boundaries between the mental/internal and the external/geographical, from the symbolic status quo of representational space to the representation of dynamic space. The operationality of critical architecture is an attempt to orient and critique architectural practice from within the discipline. Critical thinking about space requires close topographical readings, synchronicity of spatial relations and access to spatial conditions through visualizations, iconographies and mapping. The diagram becomes a method that processualizes spatial thinking and relates it to time and language. Since the early 1990s, the possibilities of globalization and technology, the internet, acceleration and virtuality have mapped the nomadic position in space and even coordinated, social relations and the dynamics (affordances) of cultural production and practices, localities and locations.

Since the mid-1990s, a period of manipulative transition is entered with the neo-liberal policies in architecture with changes in design, representation and perception of reality. The linguistic tectonics of architecture and the "grammatology" (Derrida, 2017) of the techniques of representation change with the digital and technological developments in the field of architecture such as production, management, representation,

etc. The traditional architectural language and grammar shaped by analogical reasoning and analogical methods, as emphasized by Aldo Rossi (1984) in “Architecture of the City”, produces pragmatic and active communicative discourses for self-justification, pragmatic and active communicative discourses of reflexive/non-dialectical "speech" in a state of constant action in which stabilities and origins are suspended. Formalism becomes autonomous beyond the formal and becomes a goal

After Tafuri, two figures stand out in the propagation of a new ethos of 'critical architecture' that dominated the elite architecture schools of the US East Coast in the 1970s and 1980s. Peter Eisenman's theoretical 'autonomy' of design work is a key reference point for critical architecture, further developed through his teaching at the Institute of Architecture and Urban Studies and The Cooper Union in New York. Eisenman communicated his ideas through the journal he founded, Oppositions (1973-1984), and through Architecture New York (ANY) lectures and publications. K. Michael Hays provided the canonical interpretation of Tafuri for the USA, laying the groundwork for the further penetration of literary theory into the field of architecture. Hays edited the influential journal Assemblage (1986-2000) and taught history-theory (Cowherd, 2009). Eisenman establishes direct links with the world of philosophy by working with Derrida. Similarly, Any magazine, which combines architecture and feminism in interpretive activity, is another example of an intellectual outlet.

In the last quarter of the 20th century, when different material and external expressions of constructing otherwise, fictionality, narrative, history and the representation of critical thinking came to the fore,

especially singular architectures produced through writing or literary description with post-structuralist discourses are intertwined with textual and contextual urban landscape discourse. The semantic dimension created by any textual production can now be interpreted as the objectivity of cultural and even spiritual production, including the city and architecture. Thus, textual production is a non-consensual, layered "gestalt" in which the Saussurian consensual relationship between linguistic sign, meaning and structure as syntactic similarities and semantic equivalences is seen in a wide field, whereas the figure-ground association of the city as a pattern, context and even the built environment is constantly changing in the pragmatic field.

In the late 20th century, architectural criticism became superficialized by the acts of "speaking" and the reflexivity of reflection slowed down, in contrast to the semantics of architecture and hermeneutics, which anchored in the deep structures of language in the techniques of writing and remembering-techniques in architectural discourse. The unconscious of architecture, or the new Avant-Garde, which performatizes the desire of contemporary architecture by Hays (2009), is aware of its lateness and exteriority compared to what John Berger, led by Le Corbusier, described as the Historical Avant-Garde (Foster, 1996). Like the Historical Avant-Garde, it is engaged with the system, but it does not anonymize and eliminate the architect's subjectivity in its search for a new urban rationality that it captures by returning to the deep structures of history, as Tafuri suggests. By creating a line of flight, he is historially (not historical) aware of his inconsistencies, desires and unconscious.

The return to the use or performativity of language shifts attention from text and meaning to representation and performative practice. The production and staging of reality is questioned. It is important what the dynamic structure of performance does in performative events. Culture as performance focuses on the materiality, mediality, creative forces, corporeality, and non-verbal speech-acts, historical actors, conflicts, violations and cultural subversion that the linguistic turn excludes. The interconnectedness with symbols in social practices and acts, as well as the results of analysis in individual and social processes of circulation, limidality are considered holistically. To overcome the crisis of representation created by performativity, the expansive practice of the critical self-reflexive turn in cultural anthropology is carried over to other disciplines. The aim is a self-critique of the writing process itself, including identifying and overcoming the crisis of representation, and of the environment in which writers manipulate readers in digital transformations (Bachmann-Medick, 2016, p.24).

In a world where the historical consciousness of the dialectical method in Plato's thought and the historical spirit since Hegel expresses itself through conflicting and dialectical oppositions, the emphasis is placed on non-dialectical multiplicity, becoming, genesis and the Heideggerian idea that man manifests himself by projecting himself into the future, on performativity in the present instead of the historical past and the projective future. Performativity becomes a conviction that there is no reality beyond the use of language. It does not mean, as traditional philosophy does, that in the use and expression of language, what underlies language is borrowed (Rorty, 1992). In the relationship of

architectural language with society, the pragmatism of semiotics loses its objectivity and points to the rise of the popular in the neo-liberal politics in the context of architectural language and historicity for the so-called benefit of society (Pragmatism).

In the space of time and globalization under the influence of historicism, culture can now be identified as a location (Bhabha, 2004). The translation of spaces beyond text and language becomes a fundamental social practice. Translation is an approach that transcends binaries between spaces and binary epistemological attitudes. The translation of space defines repeated translation as new directions in cultural studies. Not everything can be treated as a mere sign, symbol or text. The world is also material and materialized and governed by power relations and spatial politics. This shift towards a pictorial/visual perspective has been gaining attention since the 1990s, especially as societies are increasingly controlled by the media. New visual perspectives are no longer limited to images as objects of perception, interpretation and knowledge. They also focus on the ability of images and other visual experiences to generate knowledge in the first place. It is no longer a question of understanding images, but increasingly an attempt to understand through images and visuality, to grasp the world through images and particular cultures of seeing and looking (Bachmann-Medick, 2016, pp.27-28).

The crisis, the tectonic and technological possibilities of architecture in the second half of the 20th century and the relationship of these possibilities with ideological thought and social criticism of its politics (critical theory, Adorno, Habermas) are also linguistic and stylistic. The periods historicized as post-modern architecture and deconstructive

architecture in the turn from interpretivism to performativity are abandoned by linguistic approaches such as semiotics and linguistics that make sense of architecture in the context of history, theory and criticism.

In the 21st century, architectural criticism is on a timeless, meta-critical, hyperrealist ground in different expressions of the repetitive in the historical with speculative new materialist and ontological approaches. Through new technologies and design methods, the language of tectonic architecture has developed new linguistic approaches open to formal diversity, complexity and ambiguity. However, instead of the deconstruction tendency in linguistic approaches, the spatial turn as a new focal point that aims to represent the complexity of historical processes is based on the simultaneity and intertwining of different spatial dimensions that were previously analyzed separately (Bachmann-Medick, 2016, p.224).

A proper understanding of the intentions of the philosophy of deconstruction provides an understanding of the new nihilistic attitude in early 21st century architectural criticism. Derrida does not explain what deconstruction is, but the deconstructive attitude is misunderstood as dismantling an existing thought or text and leaving it dissolved, destroying it, distorting it. However, the deconstructive attitude is to analyze the part-whole relationship of an existing whole and the dynamics and representational structure of the way it functions, to deconstruct its tendency and its rules in the historical and linguistic context, to question the possibilities and potentials of how it could have been otherwise in the " spacing" in the postponed time, to bring the parts back together and to move the structure to another and higher level and

difference. Thus, the form and representation that emerges as a result of the justice that emerges over time is constantly mediated and suspended by the principle of undecidability.

The gap created by the fall of the theory of criticism from the agenda creates the problem of addressing architecture holistically. The positivist knowledge production of the fragmented fields of expertise in architecture obscures and shallows the epistemology of the aim and will of criticism, which also blurs the boundaries of theorizing. With the use of primary philosophical sources in the grounding of critical thinking in architecture, there is a danger of imposing a value on thought that does not come from the seriousness and depth of philosophy. The search for an integrative meta-language requires a transdisciplinary field of study beyond cultural studies.

In the first quarter of the 21st century, the pluralism of the neo-liberal order develops architectural production and consumption policies that ironically instrumentalize difference and difference for authentication, thus alienating from the innovative structure of the natural tendencies of liberation to become autonomous and authentic. The phenomenology of suspension (epoche), the phenomenology of slowness, the "horizon of expectation" created by the "openness to another" of negating postponement in the dynamic structure of the dialogue with the other, the mediational delay and, as Eisenman emphasizes, lateness (Eisenmann & Iturbe, 2020), contradicts the neo-liberal economy's expectations of speed, production, capacity increase and growth.

Monitoring and controlling the orientation of desire, difference, and otherness within the system, data architectures aiming to manage and

monitor time, productivity and efficiency, designing, managing and monitoring the emergence of what individuals freely stumble upon or think they are aware of are on the agenda .

The association between architecture and neoliberalism began to form in the 1960s and continues to the present day. With the dominance of cybernetics and counterculture, the new neoliberal subject began to be constructed with the affirmation of participation, sensation, connectivity and interaction, the effort to be free from criticism, and the glorification of creative individuals who built the idea of project-oriented architecture (Spencer, 2016). Thus, the new architecture, which was presented as emancipatory, became the new legitimization method of neoliberalism by being project and market-oriented. Since May 1968, the discourses developed by philosophers such as Deleuze, Foucault and Baudrillard on the commodification of the object of consumption have been integrated with neoliberal ideas in the architectural environment and reconstructed for the benefit of the new consumer culture. (Cestel, 2021).

Based on the ambiguity of the perception of reality, the questioning of the necessity of critical thinking (post-theory and post-criticism), and the affirmation of chaos, to ensure a critical distance from architecture, the external relationship that architecture establishes with ideological structuring must be clarified and the discourses internalized by both the mechanisms of power and architecture itself must be evaluated in the context of neoliberalism.

The relationship that postmodernism has established with neoliberalism today has common foundations in the context of constantly violating the boundaries that exist in practice, glorifying differences and lingering in

the market, and presenting different combinations of the same thing under the name of difference by mechanisms that center desire. By glorifying complexity, unknowability and individual experience, post-truth discourse opens the social and cultural to human intervention in many fields, such as architecture, making truth constructible and transformable by human hands. (Oruç, 2021).

3.3. Post-Criticism in Architecture in The Early 21st Century

Architecture, which promises to provide peace, trust and discipline to find the ideal and is shaped on this promise, has adopted discourses of freedom after the 1980s. Being changeable, transformable, replaceable and forgettable has paved the way for potential freedoms. In a sense, emancipation began to describe a production process where there are no boundaries and questioning, and therefore no conflict, opposition and criticism. Prohibitions and taboos evolved into a more complex disciplinary system. In a system where everyone is libertarian and prohibitions are not defined, it is a question mark as to what to be critical against. Tanyeli (2016) calls this so-called libertarian approach the new hyper-authoritarian thinking. With the loss of control, theory has rewritten many systems of thought that have nothing to do with the language of architecture within its own perspective. This has led to a metamorphosis of the relationship between theory and architectural practice and has rendered theory no longer functional and purposive (Spencer, 2016).

The post-critical period, in which critical thinking is considered as an intellectual activity that no longer yields results, critical approaches are excluded and the affirmative approach is accepted, has brought with it an

anti-intellectual attitude that has left opposition behind in the field of architecture. The anti-intellectual architect focuses on construction activities, arguing that eliminating complexity and contradiction is no longer a matter that the architect can cope with, and that the texts of the world of criticism are not understood and no longer useful due to their complexity (Tanyeli, 2021).

The story put forward by the authors of the 'post-criticality' argument traces its critique back to Rem Koolhaas' 1979 text 'Delirious New York' and the subsequent deviation of critical architecture in the 1990s from the orthodoxy of 'anything non-commercial'. Although Koolhaas was not the first to point to the problematic relationship between critical theory and creative action, post-critical retrospective history highlights its glaring flaw. The common ground of post-critics lies in their distaste for the negation of critical theory (Cowherd, 2009).

To legitimize post-critical thinking, Patrik Schumacher (2018, Urban Policy Manifesto) argues that architecture has been reduced to profit-driven practices and that the world should be shaped accordingly. He contends that all forms of thought and criticism in architecture should be abandoned in favor of a purely economic approach that prioritizes speculative gain (Schumacher, 2018). In this process, the practice-oriented approach to architecture is adapted to the logic of neoliberal business (Speaks, 2017). The intellectual culture of architecture now serves the needs of the neoliberal subject and society by shaping architectural processes to yield the most efficient outcomes, producing flexible spaces for adaptable individuals. In response to neoliberalism's

quest for freedom, architecture positions itself as progressive and projective (Spencer, 2016).

In the post-critical period, driven by digitization, the ongoing roles of criticism, theory, and politics within the architectural field have shifted to benefit the neoliberal system. The word-oriented plane established by criticism has been replaced by an image-oriented one, and with self-organized systems and information technologies, a mind-centered approach to design has emerged. Algorithmic methods have made it possible to generate multiple solutions to design problems, leading architecture to increasingly surrender technical knowledge to technology itself. Enabled by network technologies, architectural processes now unfold in real-time through "thinking while doing" (Speaks, 2017).

Computer-aided design methods have enabled projective architecture to transcend traditional formal boundaries by modeling complex topologies. These software-based systems integrate environmental, biological, numerical, topological, and informational data to shape architectural forms (Sykes, 2017). In parametric design, computer-aided methods allow for formalizing complexity by offering a projective perspective within the new fields of action they create.

However, projective architecture—by adopting a realism that moves away from criticality—suggests that the issue is not about resisting neoliberal policies, but rather accepting them as inevitable. Today, culture seeks innovation aligned with diversity, heterarchy, flexibility, and plurality. Architectural design's moral and political implications have been subsumed by market realities, leaving it reduced to market value alone (Van Toorn, 2003).

Given the increasingly pluralized nature of society, the affective quality of built forms can have a powerful impact by bringing diversity to the environment (Moussavi, 2009). Thus, it becomes essential to evoke emotions through the perception of architectural form, to communicate these emotions to the user, and allow them to be processed by the user's senses into thoughts, feelings, and moods (Carpo, 2017).

Although space may be commoditized, it contains a deeper sense of belonging than a mere product. This tension between old and new is absorbed into the capitalist system, presenting innovation as a harmless effect, an added surplus value to architectural products. Each architectural creation must differentiate itself from others, yet these differences must be subtle enough not to disrupt the established order. Consequently, architecture often reveals novelty implicitly, rather than producing radical changes as seen in literature, art, or engineering (Tanyeli, 2016).

Whereas in traditional societies, space was shaped by time, in the networked societies of the cybernetic era, space is organized by time. The human experience of "being in space" has shifted; as space is abstracted by new technologies, the connection between body and space weakens, rendering "being" less meaningful. The virtual environment's boundless possibilities and alternatives have erased the necessity of being in a specific place (Oruç, 2021).

According to Yokuş (2024), as technology becomes more effective, the sovereignty of the designer has begun to diminish, and non-human architectural processes have gained prominence. Beyond traditional form and function, buildings can now be constructed as integrated systems,

incorporating diverse urban, mathematical, and interactive elements with nature. Information technologies manage these complex processes, mechanize architectural production, account for environmental factors, and facilitate form-finding. The only way to effectively explore form is by reducing or minimizing the designer's role (Sönmez, 2019).

Carpo (2017) suggests that this shift opens the door to the algorithmic production of architectural objects, where algorithms enable an infinite number of functions in architectural processes. Thanks to advancements in information and communication technologies, architecture transitions from static forms to fluid ones. This non-standard production approach requires an algorithmic structure. Algorithms make time-oriented production possible, encoding the future, past, and present simultaneously, and rendering the distinction between original and copy perceptually invisible (Çelik, 2020).

3.4. The Problematics of Transcendence and Immanence in Philosophical Criticism

The totalizing transcendental aspect of criticism is always the assertion of knowledge of more than the given. A singular thought remains in the speculative realm of describing the law and conditions of the necessity of something without transcendental reasoning. The immanent aspect of criticism can only experience the possibility of what that thing is in the context of what is given. Therefore, the recognition of the boundaries of what is experienced by crossing the boundary and staying within the boundary actually has the purpose of describing the form and content of the thing itself. In addition to understanding, explaining and recognizing that thing, it tends to define that thing universally.

Adorno states that the negation of negation in Hegel's Phenomenology of the Spirit and the consequent identification of dialectical opposites and the affirmation of one by losing their distinctions/ boundaries dissolve the theory of knowledge (Adorno, 1971). With its emphasis on immanence, Adorno's negative dialectic puts forward a dynamic theory of knowledge that is constantly differentiating and negating. Dialectics does not have to proceed by resolving contradictions. The opening and unfolding of the concept, which is seen as a design in the Kantian sense, is not only a movement forward, as in history, where reality can be expressed in concept and overlap, where unity is sought, but also a movement backward, where reality resists conceptual expression. It bends backward on its movement and is open-ended. What provides this openness is non-reflexive active thinking. Society cannot be determined and transcend itself (*aufhebung*) as a system and thought in the Hegelian sense that reproduces itself in the Marxist sense. In the culture industry the proletariat is rendered socially impotent.

According to Adorno, contemporary society, or as he calls it, advanced capitalism, late capitalism or managed society, becomes less economic and more cultural. Therefore, sovereignty or power becomes readable not in terms of labor-capital relations or economic relations, but rather in terms of relations in the cultural sphere (Dellaloğlu, 2003).

Hegel thinks that universal history consists of opposites. However, according to Adorno, the materialist reversal in dialectics emphasizes the gaps and discontinuities and disjunctions in multiplicity, which cannot be historicized by the conceptual and speculative unity of the spirit. Therefore, Adorno states that discontinuity and history must be thought

together. Adorno's late-Marxist approaches to positivism and system thinking influenced the post-structuralist wing of Marxism, which evolved from social critical theory to cultural criticism (Yibing, 2011). With the literary side of critical language, Husserl's attempt to place the individual and the subject in the determinative and original position in which he founded phenomenology, again with the crisis of positivism, and Heidegger's effort to rethink the potential possibilities in the original with the critique of technology can be reconciled with linguistic and spatial thought as the expression of culture after World War II.

Thinking on the critique of architectural criticism, or in a research on how architecture experiences itself and how it exists, the meaning and power relations that architecture establishes with the other/other architectural cultures are the primary focus (Uluşan,2017). Its ontological justification on an existential ground leads to a very broad questioning. Or by realizing that there are architectural localities with many architectures or architectures in a cultural sense instead of a general architectural problematic; architecture determines its ideal and essential rational principles geographically and ethnically and harmonizes with the earth.

3.5. Architectural Criticism Between The Metaphysics of Presence and Non-Presence

When Derrida reflects on intuition as an attempt to solve the problem of the constitution of the world between the empirical and the transcendental of phenomenology, he finds that intuition is finite, experiential and worldly, and that constitution and presence cannot be fully detected by intuition. Formation is always other, never present. But

this does not mean that it can never be intangible. He recognizes that there is a dichotomy and oscillation in Husserl's philosophy between being and not being. According to Derrida, the problem of becoming is a problem of signification. Husserl tries to find an answer to the problem of the formation of ideal objects through language. There is an ideal meaning in language that transcends the phenomenal and is liberated from it. This ideal meaning is the product of an opening to infinity that is possible through language. Language has a founding role in achieving ideal objectivity. While humans are finite, an infinite, transcendental communication mechanism is assumed between humans. According to Derrida, it is writing that enables this. There is a pure relation between writing and the consciousness that grounds it. Writing is an infinite repetition. Heidegger and Derrida see in genetic phenomenology the critique that establishes the relation between the empirical and the transcendental, that the transcendental is something else that is not itself in terms of origin. While the origin is the external world, in this case, there is always a hint of a meeting. (Salman, 2023, p.13-23)

Derrida (2023) argues that in “Voice and Phenomenon”, the signifier is always situated by a suspension and that the ideality that Husserl sought to achieve is not possible in the chain of signs at hand. In this case, "the self-presence of consciousness" is an impossibility. This impossibility is called différance.

The chain of signs at hand is only a reproduction and repetition of something or the self as representation. Western metaphysics based on the Logos is always composed of this representation and its repetitive character. In the logic of representation, thought has a mechanism of

derivation because the language of metaphysics (of thought) is originary, non-derivable and obligatory. This also prevents thought from being pure in language. The formation of traditions (ideals) is nothing but the repetition of the origin in the form of modifications of what has always existed. (Salman, 2023, p:13-21)

The metaphysics of presence, where the implicit meaning of Western metaphysics (thought) is historically given in a tectonic context, built on the conformism of determined concepts/understandings that are accepted as truth, is problematic in terms of architectural criticism. Determinism has been on the agenda since the Descartesian Cartesian thought, which based its thought on presence. In architectural criticism, is it possible to keep criticism active and alive, which closes the critical distance in language, the difference and gap between the present and the non-present and declares the death of criticism; which saves criticism from post-criticism, post-theory, post-history, etc., and provides an exit from the conform field on the negating side?

Firstly, starting with the determination and negation of the unpredictability of the relative "Operational" criticism; on the contrary, based on a kind of historical faith and affirmation, the "predictability" of real history in the sense of what Foucault describes as positivity, what Manfredo Tafuri means, the continuity relationship that architectural design establishes with the whole city in the historical context is treated as a commonsense and reasonable task in the Kantian sense. In this context, architectural criticism, on its way to becoming scientific, covers the possibilities of Derridian "spacing" (aura), finds its origin in literary (poetic) creativity in a linguistic context in a structurally precise and

ordinary sense, and sits on a logos/speech-centered ground. In this case, architectural criticism and historical criticism become materially and technically compatible. In the context of linguistic expression and signification, architecture mediates the voice/logos of the historical in literary (poetic) simplicity and culture.

The ethics of architecture, which becomes particularized with its variations, becomes ordinary and anonymous. In architectural production, the practicing architect or author dies by sacrificing his or herself. What is meant by this symbolic death is the architect's effort to justify his ideology, which he personally and tactically covers up by retreating without expressing himself. In the aesthetic dimension, the literariness of architecture, in the context of the analogy of language and architecture and creativity, is articulated with a harmonious variation to the construction of the city that is "other" (intellectual) than the sum of its parts in the relation of the part-whole, which is intrinsically determined (objective) and functionally valid (scientific). In the Derridian sense, any design event in architectural practice will be a representation/writing or difference that "articulates" the past, present and future.

In the change of attitude towards determining the role of "real history" that occurred when Tafuri moved to the University of Venice, he negates what he calls "operational criticism". For the critical ground of an intellectual and magnetized urban/architectural intervention/operation that opens history to uncertainty and empiricism in the study of the historical phenomenon makes history susceptible to interpretation, space, modulation, style and linguistic expression. However, in the last year of his studies at the University of Rome, he envisages the inclusion of

research and experimentation in social, economic and cultural issues, a program of study that coordinates urban and architectural planning, eliminating the distinction between rural and urban, instead of a specialization that undertakes the solution of individual problems through analytical means. The aim is to establish the future by returning to the ideal unity of fragmented practice. In support of the metaphysics of existence (the idea of being) and holism, it advocates the reconstruction of history. The justification is that in the absence of ideological commitment and democratic customs, architectural expression is reduced to a grammar of particularized styles. The ideology and reality of the architectural form in its original state must be expressed (Vidler, 2016,241-242).

In the transition of the history of the cultural cycle from the linguistic turn to the spatial turn, it is a sign of pluralist historiography in which many histories can be written. Vidler (2018) emphasizes that the transition from a history written in plurality to the questioning of this plurality can be realized by "acknowledging the existence of historical space". In other words, the reason for the negation of historical space, or "'spacing'" in the Derridian sense, lies in the fact that these critical languages, which willingly assume the plural aspects of plurally written objects (literary works functioning as human sciences), prevent themselves from crossing the threshold (interdisciplinarity) that separates language from language, one system of power from another system of power. These critical languages can deconstruct words and texts and create impressive genealogies. But on the other hand, they cannot create

"another language". Derrida's philosophy of deconstruction is based on this limitation and transgression.

In support of this impossibility, what Tafuri means by procedural/practical criticism is mannerism in the context of a mental singularity that reflects upon itself. Through procedural critique, it liberates and autonomizes the passive/anonymous architect, in other words, the worker architect/mason or craftsman who "dies before he dies", and makes active and alive that which opens to nonexistence/nothingness. In this context, to close this reflexive gap practically and technically, Tafuri constantly refers to the theory of language, which is essentially a "science" (Vidler, 2018).

Tafuri's critical theory and architecture in Venice, which moves away from negation, ambiguity, and interpretation, and approaches linguistic determinism and descriptivism, shifts from the literary/poetic to the textual with the penetration of postmodern theory and literary criticism into the world of architecture and Jacques Derrida's philosophy of 'deconstruction'. In 1988, the deconstructivist Architecture exhibition at the Museum of Modern Art, curated by Philip Johnson and Mark Wigley, was the first architectural movement against the metaphysics of presence. Building on the position of critical theory that language, and thus all cultural production, is dependent on representation, a system of signs and symbols radically dissociated from human experience and governed by the operations of hegemonic power, Derrida argues that 'there is no meaning outside the text'. Thanks to the self-referential autonomous structure of the text, a playful, closed-endless chain of meaning is formed between the architectural object and the reader/experiencer. Thus, a

performative and creative semiotic field of study emerges where the architectural language system affirms the existing, where the signifiers are specific and the signified is ambiguous, but which is immanent to the architectural event.

Derrida's textual 'autonomy' was brought together with the autonomous framing of critical architecture between Derrida and Eisenman during the Deconstructivist Architecture Exhibition. What Derrida praises in prose, Eisenman reveals through the poetic/literary effect. The loose relationship between text and its interpretation in the philosophy of deconstruction extends to the relationship of undecidability between architectural form and meaning or experience, and the subsequent undermining of deterministic or political decision-making (Laclau, 2012, p:81) and transcendent critique by the pragmatist approaches of neo-liberal commercial policies.

The forward and backward movement or synchronicity of critical thinking in time provides the reflexivity of self-reflexive thinking in self-consciousness. Self-experience is constituted by projections into the future. The term 'reflexive' is used both in its technical sense, 'relationship that exists between a being and itself', and refreshingly, as 'an automatic (pre-conscious, pre-thinking) and often innate response to a stimulus.

The relation of a non-reflexive reactive process to remembrance and self-consciousness in the context of the metaphysics of presence 1) theory-practice or thinking- It is the simultaneity of knowing and seeing by doing in a pluralistic environment in the relation of action (nowness) 2) before the praxis of knowing and seeing after acting (past) and 3) subject

to the future critique of knowing and seeing before acting by means of memetic examples (precedents) based on the repetition of technique (mimetic, according to the ideal model of divine knowing and seeing). In this case, under the control of the dominating authority of the signifier and signified, theoretical knowledge is presented to learning through a "technical" medium as a representation of practice. Stiegler's (2012) activity of establishing the subject in the other by externalizing the technique as a prosthesis of the subject from the outside and the instrumentalization of the technique, which is present-available in the critique of technology in Heideger's reflexive thought, can also be read as a critique of the forgottenness of being.

The repetitive, rhythmic and habitual character of this process, governed in time by familiarities and inhabitations, proceeds from the individual to the collective through the instructive linear communication of theoretical knowledge and practical practice. Indeed, in Heidegger's intervention in this wager, the technique is taken together with revelation. As Heidegger (2015) points out, the acquaintance, the interviewed, the familiar, the obviousness, the apparentness, and the obviousness of the familiar is important in the connection of phenomena with technique. It is aimed to transfer the information produced based on efficiency in a fast, effective and standardized manner. This aim is the developmental and progressive arrow of the utopian first modern ideology, which turns into a one-way non-reflexive belief.

Choices in everyday life are governed by individual self-interest and a simple logic of quantitative outcomes. In the management of ever-increasing levels of complexity and interconnectedness, conditions call

for reflexive design processes that produce architectures that support socially reflexive systems that can eliminate the non-reflexive mechanisms of high modernism and the negative feedback loops of late capitalism. 'Reflexivity' in architecture, developed by Ulrich Beck, Antony Giddens and Scott Lash (1994), is a critical mechanism of architecture that reflects on itself, on the crises created by architecture produced in the transition from the first or 'simple' modernity to the second or 'reflexive' modernity.

The first process of modernization, the project of modernity (the progressive arrow of the modern), works to challenge, transform and ultimately displace the institutions and practices of pre-modern societies that history has documented from the eighteenth century to the present. The second process of modernization operates on the institutionalizations of the first modernization as a relationship between itself and the process of modernization as the other, "constituting the other through technique" (Stiegler, 2012).

A critical attitude in contemporary architecture requires the contextual possibilities of "critical architecture" to activate new tools for more effective social participation, as well as to offer political and cultural alternatives that go beyond the pragmatics of the linguistic. In all cases modeled using parametric design tools, performance characteristics are quantitative in nature, and in order to process quantitative data, architectural performance characteristics not captured in the analysis need to be continuously developed.

For the critical techniques of postmodern theory to have a useful application beyond simply demonstrating the malleable nature of the

relations between meaning and experience, they must be able to generalize the critique of the sociability and selfhood of the texts selected for deconstruction in the name of 'Autonomy'. On the contrary, deconstruction's turn away from the social and towards formalism criticizes instrumentalization while glorifying the technique of the instrumental.

According to the linear, non-linear and reflexive situations described above, a measurable direction can be determined to the extent that the interdisciplinary research initiatives proposed by critical theory and the tools of critical hermeneutics can contribute to a deeper understanding of the complex processes that result in the mapping of meaning onto form. The problematic of transcendent criticism and the disciplinary, negativist attitude that prevents the actional, as well as a pragmatism that opens to the empirical field and provides a participatory start with the contribution of a philosophy of deconstruction.

Moreover, today's artificial intelligence technologies and algorithmic governmentality bring to the fore the inadequacy of the aforementioned ideas in the onto-political reading. The philosophy of architectural criticism is updated in the early 21st century in an integrated and intertwined configuration, especially in terms of spatio-temporalisation. A spatio-temporal materialistic and technical reading of critical distancing is in Bernard Stiegler's philosophy.

3.6. Individuation and Disindividuation Concerning The Metaphysics of Presence and Non-Presence

Post-World War II liberal political thought is about affirming the idea of freedom, "forcing" individuals to be free and constructing a utopia of a

"singular idea of the good life". The positive conception of freedom here is that individuals are fully competent and rational in their actions. Berlin (2002) criticizes this positive view because it idealizes the holistic competence of human beings; freedom should be seen as a "negative" and empirical matter that cannot be measured, observed and externally intervened.

Until the 1960s, architectural criticism's relation to the metaphysics of presence was always based on the expectation of rethinking and criticizing what had already been predetermined, thought about and decided upon according to the present. The foundationalist and moralist approach develops a belief in prescriptive positivism that negates and reduces the complexity and contradictions in the assemblages of the natural by creating a conscious bracketing "epoche" of what ought to be or that the pure can be known through reason and rationality. Critical determinism's certainty that it senses and understands logos aims to know and manage what will happen in advance. However, what should or is expected to happen in an environment of uncertainty was "postponing time" with an ideology and utopian dream of the future before World War II. The nihilism that emerged after the World War II mediates the loss of self-consciousness today with a sense of disbelief and boredom towards the expected new. Today, it is ethical insensitivities that lead to results such as banalizing and indifference. (Stiegler, 2010, p.165).

To revitalize criticism, it is necessary to return to the origins of pragmatics in contact with something pre-linguistic, to reach the immediacy of the event being criticized. The “revitalization in memory of this moment of impossible immediacy, which cannot be translated into

the linguistic, leads the recollector of the technique back to the non-instrumental "πράγματα" (*pragmata)* of Ancient Greek. Every contact with something is a return to the unrepresentable or a distancing from the linguistic, opening to the pre-representational immediacy of the non-original difference in the originary.

Craft, which was a natural production of *techne* in ancient Greece, has been seen as an artistic product in modern times, separate from the producer and deconstructed. While in ancient Greek the producer and the produced were aspects of the same thing, in modern times they are separated from the producer. However, a technical object of thought does not exist outside of thought. In contemporary thought, technique is the founder of language and episteme. Knowing becomes individualized and externalized as a result of the internalization of the knowledge of doing (praxis) after doing (a posteriori). Thus, the critical attitude between knowing (subject) and producing (object) becomes experientially intertwined. Technique plays a founding role, man is constructed together with technique, the temporality of man overlaps with technique. It is the basis of the mind through its relationship with memory (Stiegler, 1998).

In historical, theoretical and practical terms, technique can be conceived as inorganic but organized matter (Stiegler, 1998, 70). Therefore, inorganic organized entities are the modalities of existence of technical objects. A non-anthropological conceptualization of the relation of human, history and culture to technology is possible through the bracketing (epoche) of the technical object and system. This is because the culturalist perspective presents an essentialist and anthropocentric

view of technology that prevents the understanding of the dynamics of the process of memory and individuation. (Otto, 2019, p:10)

As memory is externalized through technical objects, it allows for the emergence of a non-presence—a temporality that differs from a dynamic presence moving through time. Presence has a spatial dimension, recorded through symbolic coding systems (such as writing, drawing, recording devices, digital memory) and carried into the future. When memory is internalized and externalized through coding and programming within recording systems, the process becomes calculable and deterministic. In temporal openness, the past is instrumentalized to serve the present and the future. However, in lived experience, memory is inherently dynamic, immediate, and political.

"Technical individuation," as the link, condition, and mediator between the individuation processes of the psyche/self and collective individuation, forms the basis of Gilbert Simondon's theory of organology. In organology, operational inorganic matter is decomposed, spatialized, and temporally organized through technique. Bodily organs, prostheses, and socio-political organs (such as institutions, and linguistic and political systems) are articulated in this way (Stiegler, 2012, p. 48). In both the mechanical and biological realms, inorganic and organic objects become individualized, pointing to inorganic yet organized entities (Stiegler, 1998, p. 17).

Stiegler points to the deferred and differentiated quality of time when he says that the relation of writing to the performative should be attributed to all technique in general. Time is essentially deferred-time (Stiegler, 1998, p.265). This is also the meaning of Derrida's différance. Defer,

meaning to postpone and defer, and difference, meaning to differ, to contradict, to cease to be similar, to change (Otto,2019,p.66). For this reason, writing cannot be seen as putting down on paper of words that have already been completed in the head. Because writing and technique are open to the instrumental and the danger of instrumentalization, and because of this very quality, they are open to the production, criticism and invention of the new through what is already there. Writing as technique is thus the pharmacon that is at once and in the same stroke both poison and cure (Derrida, 2016, p.35).

Therefore, the ideas that Stiegler distilled from thinkers such as Heidegger, Husserl, Simondon, Foucault, Derrida, Deleuze and Guattari, etc., which are emphasized in his thought, such as individuation/disindividuation, pragmata, memory, the transition from orthographic writing to grammatization, deferred time, pharmacon, hyper-industrial- hyper-epochal transition from deferred time to real time, disorientation, hyper-synchronization, new organology, etc., ignore the existence of the pragmatics and grammatology of deferential time caused by memory operating in an expanding present in Husserl's phenomenology. Husserl's phenomenology ignores the existence of a pragmatics and grammatology of the deferential time caused by memory operating in an expanding present. In grammatization, the distance of truth that emerges in the present and that critical theory places between the political and the political is closed. In real time, where what is right or wrong is now determined by demands and averages, it is governed only by a highly technological meta-mind, by the de-technicalization of technical immediacy.

In contact with today's AI technologies, a non-humanistic reading of the metaphysics (thought) of ex-sistance can explain the part-whole relation as individuation/disindividuation. The experience of self/subjectivity is a process of individuation/disindividuation. According to Bernard Stiegler, the purpose of individuation is the immediacy of the connection between technique (knowing/remembering while doing) and time.

Culture, environment, history and materials as the pre-individual environment with which the psychic and collective individual comes into contact in the process of individuation are supported by the technical environment itself as retention devices (Stiegler, 2014, p.51). Thus, since individuation and disindividuation in Stiegler pertain to the same process of psychic, collective and technical individuation, the process of individuation is unthinkable without technology as memory-support (Otto, 2019, p:51-55). For Stiegler, technique is not just a memory-support, but memory itself. The simplest explanation of the individuation process is the externalization of memory in the technical object. This externalization is also the process of individuation/disindividuation in grammatization. Individuation and disindividuation imply the suspension, transformation and renewal of existing relations as an experience of singularity. (Otto, 2019, p:63)

However, with the industrial revolution, "the process of grammatization that constitutes the history of memory techniques suddenly transcends the domain of language, which is also the domain of the logos" (Stiegler,2012, p.46). In this process in which technique evolves faster than culture, the delay and postponement time between the transfer of

scientific discovery to technical invention and its transfer to technical innovation is getting shorter and shorter (Gille, 1986, p.33).

In grammatization as the history of the process of technical externalization of memory (Stiegler, 2016), knowledge becomes material signs (gram) and transforms into spatial fixities. In the concept borrowed from Sylvain Auroux, technique plays an important role in human evolution. In the process of evolution, human internal memory records and transmits linguistic expressions. Material transmissions and traces ensure the cultural transformation of the human mind itself from generation to generation. By externalizing memory as a technical competence, individual or collective organization becomes visible in psycho-social individuation at any stage of the process.

4. Conclusion and Suggestions

In the research, the new conditions of the critical attitude that constitute the dynamics of the theory-practice relationship in architecture in the context of the neoliberal economy of 21st century architectural practice are aimed at developing balanced political agency in the affirmation of complexity and awareness of uncertainty through critical distancing.

Since the second half of the 20th century, the history-theory-critique cycle of political agency has dissolved and made reflexive critique unresponsive. The temporal suspension of critical distance and the transcendental and immanent critical attitude during this interval keep criticism alive and dynamic. Technological developments in the early 21st century hinder the emancipatory aspects of critical attitude through algorithmic governmentality.

In 20th century philosophy, the understanding of the theoretical-practical and critical relation of the self to memory and its representations, especially at the margins called the linguistic turn and the spatial turn, provides the intellectual infrastructure for the active relation of architectural criticism to contemporary technologies and governmentality. What is critical in the technological is the transformation of technical knowledge, or that technique is not an external knowledge but a type of social knowledge that was previously recorded.

Post-1960 architectural criticism, which the Enlightenment built on consensual foundations based on reason and the rational, theorizes architectural form and content through linguistics and semiotics while passing through the historical. In this theory, architectural production doubles in the mind and body as the codification of architectural form and its signification (affective) and its signification (mental). Meaning is integrated with the linguistic vocabulary in the expansion of experience, and the body is integrated with the conditions of possibility and limitations of architectural space. The content of architectural practice, as program and function, dominates the actions of the experiencing body within the possibilities of time and space. The theoretical infrastructure constructs the representational space and the practical infrastructure constructs the living space. The Marxist background of critical theory in architecture is an idealist speculation that in this disjunction, practice will be transformed through action and the theoretical signification will be transformed by ending this hegemony.

Starting with Manfredo Tafuri, who tried to reconstruct the relationship between Modernism and history in continental Europe, and experiencing a breaking point in American architectural culture with the emphasis on the contradictions of the rational in the ironic criticism of Robert Venturi's (1966) text Complexity and Contradiction in Architecture, the post-1970 history-theory-criticism unity is the period when architectural criticism and even the utopia-ideology-criticism relationship in architecture is the most powerful.

Since the 1960s, architectural criticism has put forward axiomatic and diagrammatic intellectual options, but in the reflexive power relationship between theory and practice, between architecture's self (discipline) and its otherness (onto-politics), criticism's relationship to history and then to architecture's reflexivity and theory has dissociated. On a ground without history and theory, the necessity of a critical attitude is questioned.

In the early 21st century, the creation of a dynamic pluralism of values in this dissolution is primarily the agenda of a universalist, moralist and non-foundationalist/non-rationalist (negationist) philosophy of language. The ground of the approach is an effort for individual and social agency that passes through the seemingly irreconcilable auto-poiesis of contemporary architectural criticism and the deconstructive version of the phenomenological experience of self/subjectivity of the desire for autonomy and self-creation in language, competitive or representational, and the political pragmatic version of the desire for community grounded in linguistic use, performativity and democracy. This endeavor, which operates transitively in the language games in the intimate and public sphere of human solidarity, is the agency of the individual and the

community in the design and experience of the linguistic and spatial in the mediality of architecture.

In Manfredo Tafuri's realism, it is quite difficult to actively and actionally resist within the system through the critique of capitalism. Despite the historical and traditional, the autonomization of architectural discipline and criticism can be realized theoretically/utopically. Critical architecture is transformed in the ideological difference between cultural domination and the autonomy of form. It is clear that the theoretical autonomy and the speculative and creative gaze that transactional criticism provides for contemporary architectural criticism. The relative subjectivities and individualizations provided by today's critical environment also pave the way for a transactional distortion of reality depending on the interest- profit relationship. Today's critical environment has a simultaneous, non-linear and historial ontology. Instead of a chronological sequence and linearity, historiality creates inferences and scenarios by juxtaposing and reading the events of history in reverse, from the future to the past, in a non-linear, simultaneous and way. Such a processivity is paradoxically possible through the active objectifying, textualizing activity of an immanent theory.

In fact, the hyper-synchronizing and time-delaying possibilities of technology make criticism impossible by reaching speeds that prevent thinking. Such an ontology creates the problematic of disindividuation, including the non-existence of language.

The context of the knowledge of architectural pluralities or architectures is no longer limited to the experience of existence in the world and the materiality of the architectural profession in terms of the cultural

possibilities produced or discovered, but also to new representations of form and content in which metaphysical information flows are time-spatialized. In the face of the transcendence of the invisible, which is now turned towards with faith, there is an active possibility of visibility and representation, where information can be controlled and instrumentalized through the reading and interpretation of immanent information networks and (*transcendental*) computational capacities that transcend the limits of reason. Therefore, the hierarchical structure of classical ontology, from the universal to the particular, is gradually replaced by interacting ontologies, shifting network connections, and part-whole relations. From a theoretical point of view, the problem of the abundance of knowledge and the management of capacities arises.

What is paradoxical is the continuity of the ontological difference between depths and superficialities in the topological movement of criticism. What ensures continuity is history and self-consciousness. However, the narrative dimension of events and their change in history and memory, the perception of reality, the manipulation of truth (post-truth discourse) call into question the transcendental and integrative tendencies and necessity of criticism and theory today. The ease with which individualization and personal opinions are expressed at the communicative level, the speed of dissemination and the technological conditions in which information networks are unable to control the accuracy of information, prevent the realization of critical decision-making and position-taking attitudes.

What is touched upon in the present updates the average of what is already valuable and to be dealt with through the hyper-synchronizing

possibilities of technology. Today's contemporary architectural criticism acknowledges the constitutive efficacy of technique, and in the awareness of the pharmacological benefits and harms of technique, the relation of criticism to the actional is realized concerning the self and the other in the present with the ethical responsibility of what is done in action in the present. In realist criticism, the initiative lies in the present expression of the perfection of architecture that can design the past and the present for the future.

It creates an opportunity for an "spacing" where the material and the social are considered together, where the existent and the non-existent coexist. Derrida saw this interval in thought in the representations of the linguistic. He interprets the encounters in the dialectic of thought with the opposites of the existing given concepts as the blurring of boundaries, permeabilities and transgressions of boundaries, and sees grayness and compromises as possibilities. It is open to possibilities that are not yet on the agenda (hospitality) and looks through the present. The transition from thought to practice is possible through activism.

The tradition of critiquing oppressive and hierarchical structures that emerged in the 1960s can be adapted to the complexities of today; however, finding direct solutions through this type of criticism remains challenging (Rouvroy, 2016). For this reason, the intellectual or active architect has the power to advance architectural strategies that are developed with the idea of freedom through action (Walker et al., 2021). This power is realized through the externalization of thought via doing, building, and putting discourse into action.

The intellectual architect's focus on social problems, climate crises, political imbalances, and injustices represents a new way of discussing the limits of architecture and exploring how the architectural milieu can re-engage with practice independently of the capitalist order (Walker et al., 2021). The primary trajectory of thought in the 21st century is to stop viewing architecture as limited to its own confines. Without addressing architecture within the context of architectural language, it becomes an act of activism to expand the familiar boundaries defined by architecture (Tanyeli, 2021). Therefore, the goal is to produce discourses and actions that can reciprocate by identifying complicity in the production of more commodities (Lorne, 2017).

In Derrida's philosophy of deconstruction, the ethics of justice and responsibility and the negation relation between contingency and decision-making in the political undecidable, the distance between the structure of undecidability and the actuality of decision-making are theorized through hegemony. A radical democratic perspective is required, provided that one is sensitive to the liberal utopian type of pragmatism, which affirms and instrumentalizes short-term compromises that are necessary for society, and which engages in social engineering and deliberation in ordinary, familiar terms. According to Richard Rorty, the non-rational linguistic ground of the democratic perspective is the issue of shared beliefs. There is a need for persuasive practices and moves to broaden the scope of people's commitment to others, where there is no such conceptual ground as unconditional, universally valid. Emotions and sympathetic stories make the transition from rationalism to liberalism. Only in a contextualist way can liberal democratic principles

be defended as constituting a way of life and a safe ground, a democratic ethos.

The possibility of democratic agency and the conditions of existence of the democratic liberal subject are debated. Recognizing the rational and theoretical limitations of the claims of reason, it is essential to acknowledge and reflect on the consensus-building of a temporary hegemony, pluralistic practices, conflicting values and interests, and the insurmountability of their instability. The impossibility of deconstruction without exclusion and conflict (antagonism), concepts such as undecidability and decision keep democracy alive. The absence of a rational assumption of harmony and consensus in an unstable consensus in order not to close the democratic space are the conditions that make a targeted end impossible (Mouffe, 2012 pp:10-23)

The mediation of neorealist critique now resides in the openness and spatiality of language, as well as in the mobile agencies that transgress the limits of the spatial closure of the body. Till & Schneider (2012) define "spatial agency" as an architect's actions that represent an alternative approach to critical practice. Spatial agency seeks new possibilities for architectural action through micro-interventions in the human, social, political, and cultural spheres (Till & Schneider, 2011).

Spatial mobilizations that aim to provide an alternative to neoliberalism are based on the idea that "critical theory does not lead to critical practice," a phenomenon known as the crisis of theory. In architectural criticism, the theoretical framework must shift; it should descend to a more vital level and actively engage with architectural practice (Doucet & Cupers, 2014).

These alternative approaches do not prescribe economic "sustainability" by merely focusing on the "needier" segments of society. Within spatial agency, there is no "ideal" solution, but rather a deconstruction that encourages continuous questioning. Spatial agency demonstrates that architects have a choice and addresses an ethical gap that seems to have emerged in many professions (Till & Schneider, 2011). In understanding spatial agency, the architect's role is to produce new actions based on theory, critique, micro-history (contingency), and politics

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The Spatial Narrative and The Narrative Space in Architecture

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1. Introduction

> *"I want...to give a picture of Dublin so complete that if the city one day suddenly disappeared from the earth it could be reconstructed out of my book [*Ulysses*]"*
>
> *James Joyce, 2024*

The city is the *magnum opus* of human intellect. It is a construct of human thinking. Thinking throughout the history of philosophy is the conjugate of what is called the *logos* as initially named in antiquity, a term that matches the word *speech* in modern languages. One can easily deduce that thinking is the speaking of one's mind to its own self. What that mind is speaking of, to its own self, then is of significance when it comes to articulate on the city, and the achievements in architecture that builds it which is a process that mediates through ages or even more so, eons. Manifestation of that speaking mind is subject to many different forms of representation that tells us the story of the architectural praxis in the history of humanity which is part of a wider domain of the cultural studies.

James Joyce, the writer of the book Ulysses, so humbly put forward his statement that the city of Dublin could be reconstructed if one day it was erased from the surface of the earth (Budgen, 1972). Although, at first glance, it could be conceived as vanity or disdain, in fact and quite the opposite it is a modest one, because under that statement lies the insinuation that if one day his book Ulysses disappeared, we could reconstruct it out of the city of Dublin. Logically some propositions are true in one direction, and wrong in the opposite direction and yet, Joyce's can be considered true in both ways, hence the modesty of his assumption is grasped. Ulysses was just one manifestation of the city of Dublin out of the endless many possibilities, with references to Homer's ancient Greek epic poem the Odysseus, which paved the way for Joyce's literature to an ongoing

scrutiny of his work by the modern and postmodern critics and scholars. The novel takes the reader into a juxtaposed journey through the streets of Dublin as experienced by three main characters on the very same day, following their own timelines, only to introduce us to varying venues of Dublin including, pubs and bars, restaurants, hotels, a Catholic church and a funeral house, a hospital, the Nighttime street (red light district of Dublin) and a brothel, the National Library, rocky strands and shores and finalizes at Martello tower where it all began at the same location the three protagonists reside, a novel ending where it started, the same way as expected of any classic narrative (Joyce, 2024) . The architectural background the novel comprises is not limited to the physical environment of Dublin, but it is also in a continuous interplay with the dreamscapes provided by the narration of the main and supporting characters. Not to mention that the intertextuality maintained by metaphorical expressionism referring to its counterpart in Odysseus from the Greek literature also increases the complexity of the very same architectural setting. Turning back then, to the question that if we could reconstruct Dublin out of Joyce's Ulysses, and trying to bring an answer to it with the architectural material at hand therefore may be a far exceeding one for architects through the lens of realism, needless to say one that may well be considered a futile effort, however makes one wander on it and imagine the essence that lies underneath our presence in the cities.

2. Abstinence from the Origin

Our confrontation with the city in urban spaces with its mediator the Architecture with a capital 'A' is a constant process of becoming without a distinctive beginning and an end. This abstinence from an origin posits us in a condition of *inbetweenness*. What we perceive, conceive and experience take place in between the spaces of an urban setting. Rural experiences also take in between urbanities (or vice versa depending on the standpoint). The fact that our day-to-day individual experiences are reduced to routines does not contradict this

assumption, it fortifies it. A routine in the daily life of -say a factory worker starts exactly the same time every day from where he lives, he commutes to work and back to his house making us think that there is an origin for his urban experience to begin and terminate. However, in this cyclic pattern of living, each beginning is the end of what is next to take place, and each end is a new beginning. Urban spaces are annexes attached to the cycle of events without an end or beginning. This inbetweenness is the becoming of our urban presence. That being said, the representation of the inbetweenness as a becoming of the presence in the urban space is a whole different issue because when it is the matter of representation, it has a beginning and an end which also constitutes the definition of a narrative. Each narrative is basically a story that has a beginning and an end with a series of actors and events that take part in it. Today we have the understanding that story telling is not the only way of narration and its actors are not limited to only human beings. Architecture itself is considered to constitute a vast domain of narratives, with having many actors (animate and/or inanimate) such as the landscape, the eco-systems, buildings, and of course, the people (Achten, 2019).

2.1. Narrative as a Mediation between a Beginning and an End

Let us first take a look at the classical implications of what a narrative is. Vladimir Y. Propp was a Soviet era Russian folklorist who conducted his research on Russian folk tales. From his studies came out a conclusion that old tales withheld certain patterns as if they were told by the same narrator (although they were anonymous with no known author). The pattern he deduced portrayed certain type of actors enacting certain type of events. In his deduction, the actors are responsible for certain events that made the progress of the fairy tale possible associated with 31 functions (concepts) in an ascending order. Not necessarily all the functions are fulfilled in the tales, but the general pattern persists. According to Propp's analysis, the initiator of the tale is the Absence, absence of something or someone in the society which causes a conflict (a vanishing member of the

family, an item, or so). Encompassing all the Proppian narrative functions of the folk tales may become exhaustive as it may be redundant, yet some excerpts can assist us in grasping the idea therefore it would be better to get on with the one called Reconnaissance. In this stage of the tale the villain is introduced to the plot, searching for the ways to deceive and harm the hero. In the Departure stage of the tale, hero realizes what must be done to overcome the conflict and charged with a sense of purpose. Donor and the Magical Agent stages introduce the actors to the story that appear in the tale with a function to guide the hero in his quest to resolve the conflict. The donor could be a wise person helping the hero to find his way and the magical agent is something that the hero acquires which could be a tool to perform magic or something he consumes to make him wiser, stronger or both. Then comes the stages of Struggle and Victory in which the hero and the villain confront each other in a battle or a contest where the villain is defeated by the hero. In the Return and Exposure stages of the tale, the hero returns home and recognized as a hero. And finally in the Wedding stage, the hero is married and usually raised to the throne thus, the conflict is resolved, the initial absence is restored and replaced with abundance and prosperity. The significance of Propp's, analysis is that it posits the narrative not only as a mediation between a beginning and an end, and yet reassigns it an internal structure of interdependent actors and their actions giving us an insight of what becoming is (Propp, 1968). Narrative is about change and temporality. The relationships of the characters and events in the narrative interact to transform the initial state and conditions of the story to evolve into possible prospects. The books on the best seller shelves in a bookstore and movies in the mainstream cinema is still filled with gross profiting items that follow the similar if not the same narrative structure that Propp, proposed in the findings of his research on the turn of the 20th century.

3. Actantial Model of Narratives

A few decades later, a Lithuanian scholar Algirdas Julien Greimas, simplified what Propp proposed in his seminal work and reduced the narrative terms into six components in his Actantial Model: subject, object, sender, receiver, helper, and opponent. After his introduction of what he calls the "semiotic square" by which he argued that the semiotic terms can be understood with both what they are and what they are not, he drew a generalized model for the narrative structure. To make the story short, the Actantial Model vindicates Prop's work and proposes a narrative structure like such: the subject desires an object, in the quest to attain the object, the helper helps while the opponent obstructs. Sender is the reason for the subject in his quest to attain the object and the receiver is the benefiter when the subject succeeds. In this narrative model, Greimas signals an implicit relation among three important layers of the narrative: to desire, to know, and to be able to do (Greimas, 1987). An empirical understanding of narrated aesthetics is difficult whenever the architectural discipline moves from the objective anchors of buildings to the elusive milieu of human experience. While a natural bias toward production over reception could be traced to profession of architecture in charge of making, studying, and maintaining the built world, one must acknowledge that engaging subjective, embodied, and psychological responses in such narratives is a major deterrent (Ro and Bermudez, 2015). A review on the narrative theory so far, sheds light on the general aspects of the narrative phenomenon revealing that *(1)* the narrative takes place in between a beginning and an end in a sequence of events, *(2)* has temporality involving specific characters and timelines, *(3)* is transformative (is about the becoming of people, events and the environment that are casually related), *(4)* has a structure, displaying a certain level of organization beyond the basic coherence, *(5)* provides overlayed heuristic/intuitional (to desire), informational/cognitive (to

know) and performative (to be able to do) understanding on procedural events (Leon, 2016).

4. Architectural Narratives as a Modality of Representation

Narratives in architecture can be studied in two different ways, depending on from which direction you would approach the narrative issue grammatically. If the word 'narrative' is a noun, as in the phrase 'Architectural Narrative' and described by the adjective word 'Architectural', then the meaning of narrative in this adjective clause falls not far from what a regular folk tale means. It indicates one of many representational forms of architecture is in use to express feelings, ideas, events or simply just to exchange information. Photography, cinematography, videography, cartography, pictography, iconography, lithography, ideography, modelage, crafting, free hand drawing, technical drawing and all other kinds of visual communication techniques, as well as all the plastic and performative art forms including musical and stage performances, written and oral literature, and their mixed structured forms can be used to represent Architecture and all the objects that can be associated with it (Asar and Çebi, 2018). It is the Architecture's becoming in the form of a narrative, a representational form of expression, or the Architecture's attempt to turn itself into a tale so to say. In that sense, the idea this objectified form of narrative by the Architecture is not so difficult to grasp. But the grammatically inverse form of the narrative may take a little bit of more to think on.

5. Narrative Architecture as a Process of Becoming

Narrative Architecture on the other hand, posits the narrative as an adjective and Architecture as noun which is described by it. This syntagmatic change transforms (conceptually not less than grammatically) architecture into a storyteller rather than the story told itself, ascribing it as the narrator of people, events and the environment. Assigning the role of storytelling to architecture requires it to take all the interactions, interrelations and interconnections of the

agents to be taken into account in the process of design. Those agents be it in stasis or flow, sets the stage of narrative architecture in which each design process is case sensitive, network oriented, reinvented, and rewritten, deconstructing and reconstructing the interplay of these agents every single instant from scratch. Architectural object is not the object of architecture anymore as it used to be since the modern conjecture idealized the mechanical processes of the industrial production as the determinants of the architectural product (object) which took over the attributions of productivity such as functionality, standardization, serial and mass production, etc on itself from the mechanical processes. The project of modernity has been a very successful one in reinventing the design and production relations in the society because when you take a quick look around yourself, even at this very moment where you are and reading those lines, in your home, at work or on the bus or train, every item you see will be a design product. Modern, including modernist architecture was a utopia, having an egalitarian prospect, envisioned a society in which every individual had the equal right to have access to design and in that everyone could easily afford it. It has been quite some time since that vision has been accomplished. Therefore, modern utopia is no more. From sustainability point of view, a dystopian future is rising over the not-so-distant frontier, the wealth distribution among the society is broken and far from being equitable, environmental and climate crises is at our doorstep. Neoliberalist economic policies vindicated the reoccupation of the urban territory by the capital, to produce more capital instrumentalizing architecture and urbanism.

Modern and industrial production relations codified into the DNA of architecture is hitherto the driving force of the social structure, however through mutations imposed by the information technology an evolution is taking place the transform the narratives of architecture. As stated by Peter Eisenman, the Zeitgeist of Architecture in the form of a double helix has intertwined strands one of which

corresponds to the socioeconomic relations of the modern paradigm and the other to the information technology. The actors and events in architectural processes today are still being determined by mechanical production relations. So far yet, the city image of the modern paradigm persists as it is previously drawn in the first half of the 20th century but the emerging advancements in the informational technology open new possibilities of understanding for the architectural processes and its corresponding city image. In the information society today, we are as alien to that image as once our ancestors were when the industrial revolution took place and transformed the feudal society and its reciprocal city image (Eisenman, 1994). Territorial physical borders are losing their significance more and more every other day as trade goods and services including architectural projects and consultancy services are realized with real-time cooperation of actors in remote geographical locations, to and from, the information and money is exchanged simultaneously. In consequence, aside from the contextual design issues, architectural processes gain more and more case sensitivity for which new narratives must be reinvented. An architectural office, say, in Istanbul, while managing its base operations in an overseas country may have to conduct an architectural project with foreign contractors calculating cross currency risks, using site specific building materials for the users of somewhat a different culture. Historically, architectural operations were carried out in the ancient world in distant geographical locations, however there was a limit to the information exchange and that was the speed of a ship sailing on the sea. A sailing ship had long remained the fastest instrument to carry information, therefore the architectural narratives were place bound where actors and events were affected by the conditions of a restricted geographic circumference. The simultaneity of the information exchange had profound effects on the society since the mass-communication brings the events that takes place in distant locations to our households instantly, imposing us to take actions against the events otherwise we

could never be aware of (Virilio, 1998). Together with a few number of manuscripts, buildings were the only source of *techne* which is the knowledge to build prior to the invention of the first printing machine whereas today, together with the real-time information flow, the exchange rate of the know-how in building technology transformed architectural narratives in a way that designing information on architecture has become more important than designing the architectural product itself. Building Information Modeling systems, prototyping and AI technologies are constantly transforming the narratives we build in Architecture. The difference in between the architectural object and its narrative forms is slowly disappearing i.e., digital twins of the buildings are created with all the real attributes of their physical counterparts, enabling automatons to work in dark factories without the presence of a single human being. The actors of such a narrative (architecture) are non-living and non-place bound.

6. Surfaces: Curvature vs. Plane

The archaic manifestation of architecture vastly involves the conception of the pretty abstract term called the 'architectural space' and our physical presence in it. We acquire our physical presence in space and never get the chance to supersede it and since a very long time ago, which may be stretched back to the first inhabited shelters that are caves and rock formations found in the nature, this presence takes place within an architectural space. The cave is found, and the purpose of space is designated by its users to it (Fujimoto, 2014). According to the undulations, ripples or crinkles that give form to the curved surfaces in those geological formations, the inhabitants of the cave decided where they would light the fire, sleep or store their collectibles and their nutrient stuff. When humans started to nest in shelters that they built, the architectural space interchanged its determining property with its purpose which is to say, similar to a bird's nest that the architectural space was formed according to a purpose. Basically, for thousands of years this priority in the relationship between the architectural space

and its purpose remained the same. It can be argued that the bond between the space and its predetermined utilitarian purpose, in other words its function, reached to a climax in the industrialized society. Purpose of use preceded how the architectural space will take form ever since the cultivation of the soil, that very thin geographical layer of the earth had started. Plain surfaces, horizontally, vertically or obliquely placed against each other, in varying dimensions, heights and elevations created a syntax of adjacencies and delimitations corresponding to a prespecified aim. In the early examples of human settlements like Çatalhöyük, the living units had architectural spaces associated with certain purposes of use such as storage, food processing, cooking, praying, sleeping, pretty much like today with a very minor difference. In the early human settlements unlike today, the proto-city of the early human societies consisted of only one settlement type which were the dwellings, in that each and every dwelling unit accommodated the spaces with its designated purpose of use which corresponded to all the faculties available to humankind at that time. Those dwelling units were not only a house for its inhabitants but were, at the same time a production and a storage unit, a resting place for both the living and the dead as they buried their dead underneath the seating platforms raised from the ground, a place where they worshiped their deities, and a learning environment where they educated their off-springs passing on their lifelong knowledge and skills that they needed to thrive to the generations to come. Type of labor was one and the same for each individual and it was not a means for spatial segregation as can be seen in feudal societies. The priority order between the purpose of use and the architectural space stayed the same for the spatial narratives within the course of architecture in the ages to come.

7. Utilitarian and Representative Origin of the Space

The early stages of the division of labor seen in antiquity and feudal societies imposed a segregation with its predetermined utilitarian assignments. Buildings of defense, authority, religion and governance like citadels, city walls, imperial houses, palaces and temples elucidated narratives of power and control whereas marketplaces, bazaars, agoras expressed more democratic narrations of exchange and interaction. The civic architecture exposed a segmentation of the space that followed a temporal pattern. Production of goods took place in the daylight in the street level in the workshops or in the ateliers and cellars that are in the courtyards, whereas the darkness of the nightfall required retreating of the people to upper levels for relaxation and recreation. Let's not forget that spatial segmentation was only utilitarian and not temporal in the Çatalhöyük settlement. The functional segmentation of architectural space in the industrial societies deepened with the specialization and division of labor and as a result, building types have emerged. The narrative space organized the human interaction in such a way that both temporal and utilitarian segmentation were at stake. The eons long relationship between the architectural space and its utilitarian purpose that remarked the functionality of the space.

In the pursuit of reinventing itself, architecture in different historical periods has constructed new narratives of their own. Eisenman (1984), states that the origin of the narrative of Romanesque architecture, for instance was the representation of divinity. Similarly, nature in Renaissance architecture, reason and causality in Enlightenment period, productivity in Industrial period, functionality in Modern, and timelessness in Post-Modern followed that narrative pattern. The compartmentalization of the architectural history in this sense is also a grand narrative of architecture for what the architecture in those different historical periods relentlessly have objectified was the presence of an origin. This seeking of a narrative origin annihilates the particularities among the discourses of

different historical periods. In that sense, the architectural history is the continuation of one great narrative of the orientation towards a distinctive origin making the modern, postmodern or the classical discourses of architecture identical with each other (Eisenman, 1984). The purpose of use, being the determinant of the spatial narrative has also remained unchanged since Çatalhöyük. Building (bird)nests is the ultimate spatial narrative in architecture since humankind left the rippled and curved interiority of the caves. Spatial narrative aspires to have an origin, and that is the purpose of use, and as for the case of architectural narrative, that origin is the representation of an idealized and idolized concept as mentioned above, because a narrative without an origin could not be created and set to evolve in its course to reach to a meaningful end. This reduction of both the architectural space and architecture in broader term to a representational object can be restrictive in discovering the new relationships, and possibilities in the domain of architecture. To ask the question of whether to return to primitive narratives, like in the case of the cave, would reveal new possibilities for architecture could be of significance at this point. Avoiding the probability of falling into a dichotomy, a distinction between the spatial narrative and narrative space should once again be drawn.

The need for an origin to represent in the notation of spatial narrative as opposed to becoming of the space itself in narrative space is of significant value. The space is not the formal representation of the purpose of use and yet it unfolds and reveals itself through experience. The causality between the utilitarian purpose of space and its representational form was an orthodox discourse of the spatial content in functionalist architecture yet starting from the midcentury this doctrine of modern architecture (inherited from prior historical discourses) was challenged by the changing social content (Tseng, 2015). Aside from that, in the discourse of architecture, spatial narratives have become the means for the instrumentalization of ideology. This simple test from the domain of sustainable architecture reveals

the ideological nature of the spatial narrative: “Who would dare suggest that sustainability is anything but a good thing?”. This question hides beneath itself the notion that the architectural space requires to be filled with concepts and ideas of sustainability. From the narrative space point of view however, the conceptual approach begs us to state that sustainability is not a value laden concept (such as good or bad), but a trade-off between three competing ambitions: environmental protection, economic growth, and fairness for people. It embodies other narrations concerning the relations between people, institutions, ecology so and so forth (Martek et al.,2018) so much so that Alvarao Siza has pointed out by saying “architects do not invent anything, they transform reality”. Narrative architecture therefore seeks for not the representation, but the transformation of reality as conceptualized by its author (Jo and Lee, 2007). The city which appears as a palimpsest of superimposed texts, despite all its perturbational juxtapositions of codes interacting and intersecting with each other in alternating hierarchical and interrelations poses a problem of reading and interpreting is related to the notion of code selection. Some codes are naturalized and perceived as natural, taken for granted, become the basis for mythology, propaganda and ideology. This also applies to the aesthetic perception, when certain models and patterns are given as normative, correct, and some political (Piskunova, Starostova and Yankov, 2018).

8. Narrative Space

The notion of narrative space requires no origin, but it is itself the origin of an architectural program modern architectural discourse failed to embrace. The program of such an architecture is not exclusive but an inclusive one as the utopian vision to design for all is voided by the desire of multivocality. Official history is replaced by micro-history of social groups, and the autonomy of the other/author over impromptu texts and ad hoc narrative material is acquired. The author/other seeks authenticity in the places where the modern discourse of

architecture neglected to look. Those places can at times be in existence only in the memory of the other/author or places that have never come into existence before. The absence of such places in official historical narratives and memorialization does not entail an absence of narrative spaces from individual and communal memory, yet they can resist the amnesia by simply continuing to exist as they await recognition. The "Otherness" of these spaces becomes apparent with respect to the normalized spaces and architectures of everyday life, i.e., spaces not meant to accept "Otherness" as part of their identity (El Richani, 2015).

Geometry and configuration of buildings and other environmental actors (be it living or non-living) in the architectural space inevitably create meaning for the perceiving and conceiving subject defining fields of interaction (Rashid, 2010). Human beings not only discern geometric patterns in their environment and associate them with abstract spaces in the mind, but also try to engage their feelings, images, and thoughts in tactile material resulting in the formation of architectural space, and on a large scale, the planned city (Lyu, 2019). Today's agenda criticizes anthropocentric view inherent to the theoretical studies with a reflection that the actors and actants of the urban and architectural environment is not only comprised of human beings, but of objects that can be categorized as plants, trees, animals, things and elements of the built and natural environment introducing the sociology of associations among each other (Latour, 2007). This complex lieu of relations comprised with feelings, thoughts, materials, shapes, geometries, actors and actants, was too intricate for the cartesian reduction of the industrial processes and its reflection in modern architecture.

Digital and information technologies, on the other hand provided an insight to the chaotic matrix of the living-world phenomena that permeated over a spatial field. Through computational techniques, it is possible to simulate the complexity of this real-life phenomena. The dynamic structure of movement behavior of

animated objects, such as the flock of birds flying in the air, or herd of reindeers sprawling in the field, can be simulated by an algorithm with a limited number of rules. Such complex phenomena are characterized as matrices and called the Field Conditions which move from the one toward the many, from individuals to collectives, from objects to fields. By definition, a field condition could be any formal or spatial matrix capable of unifying diverse elements while respecting the identity of each. Herd of reindeers reacting to a hoovering helicopter over and above them can be an example for what is called the field condition. What is interesting is that, this complex and chaotic behavior of those animals can be modeled and simulated by simple rules formulated by an algorithm containing only three lines. *(1)* maintain the minimum distance with other members of the herd, including other objects in the environment, *(2)* match the velocities with other bodies in the vicinity, *(3)* move forward the perceived center of mass in the neighborhood. These three simple rules can effectively yield a computer simulated model animation of the herd behavior. (Allen, 2012). In architecture, building elements like columns and walls do not move therefore one can ask what creates the field condition. Often time the given example as an answer to this question is the Great Mosque of Cordoba in Spain. The space is filled with columns and arches with equidistance resulting in a matrix of architectural building elements and forming an undifferentiated but highly charged field. This field generates complex parallax effects that prey on visitors as they move through space. The building materials are static, but the dynamic presence of the perceiving human body is captured in the parallax effect of the field condition. The examples can be expanded with the multi-columned mosques located in central Anatolia, and with the Berlin Memorial to the Murdered Jews of Europe by Eisenman. The narrative architecture in these examples is the field condition. Looking at deeply and observing a natural phenomenon resulted in the deciphering of the codes, relations, and interconnectedness of the component

elements resulting in determining the rules for the behavioral patterns and events. Long story short, the animated computer model is a spatial narrative, merely a modality of representation among many, however narrative space, is to look into the associations of the events, actants and agents in the story and letting the space talk for itself.

9. Conclusions

Logos, the speaking mind tells us architects, many stories that glimpse the existence of uncountable ideas of narrative spaces and yet, sticking to the utilitarian association of space to its form as a spatial narrative is in a sense confining architecture to a limited scope. Maybe future of architecture lies in the return to the cave to relocate human thinking to a primary condition that would propagate the type of activities and events in a sheltering space.

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Aesthetic Control in Architecture: Concepts, Definitions and Tools

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1. Introduction

Aesthetic control, defined as the regulation of the visual and spatial qualities of the built environment, is a widely employed tool in many countries today. It influences decisions across various fields, from urban to interior design, and involves multiple actors, policies, practices, and mechanisms (Ünlü, 2006, pp. 65-68; Nelissen & de Vocht, 1992). While the visual and spatial regulation of settlements is not a new concept, its legal and systematic implementation in the form of aesthetic control can be traced to the rapid urbanization experienced in various parts of the world during the 1800s. This period saw a growing and interest in the aesthetic organization and development of cities (Freestone, 2010, pp. 210-216). It is important that aesthetics is also included as a criterion in addressing the unhealthy living conditions brought about by rapid urbanization here. This highlights the inseparability of (sensory) pleasure derived from built environments and hygiene conditions as essential elements of "good" living standards. The regulatory goal of creating attractive built environments has persisted throughout history (Talen, 2012), leading many countries to develop aesthetic control tools such as master plans, regulations, and design guides (Nelissen & de Vocht, 1992; Punter, 1999, p. 80; Ünlü, 2006, p. 68). Grounded in normative approaches to aesthetic value (Beer, 2014, p. 283), this practice underscores the continuing significance of aesthetic control.

2. Material and Method

In this context, the concept of aesthetic control in architecture will be explored through the examination of related terms and concepts, its scope, positive and negative aspects, history, and key tools. This chapter will also

address the current state of the concept and its potential future directions. Before delving into the concept itself, an overview of aesthetics as a field—particularly its influence on the values and judgment of objects—will be provided, alongside its counterpart in architecture and the domain of environmental aesthetics, which informs the aesthetic judgment of the environment. The goal is to enable the reader to understand the administrative "imposition" of aesthetics on the built environment by first establishing a general aesthetic framework and then focusing on a specialized area of aesthetics, employing a general-to-specific approach.

The research draws on key texts from contemporary international literature on aesthetic control. Current perspectives and information on the relevant concepts have been synthesized through comparative analysis. The relationship of the topic to design fields of varying scales and scopes has presented both opportunities and challenges in transferring information at the architectural scale. While the subject remains significant, the limited availability of 21st-century sources has added to the research challenges.

3. Aesthetics: From Philosophy to the Built Environment

3.1. Aesthetics

Aesthetics is a “science” of philosophy, of “thinking on beauty and a faculty similar to reason”, or sensory or unclear knowledge. It was first established as an indepenendent field by the German philosopher Alexander G. Baumgarten, who investigated sensory knowledge in the 18th century. The word aesthetics, from which the science takes its name, is derived from the Greek words *aisthesis*, meaning sensation or sensible perception, and *aisthanesthai*, meaning to perceive by senses (Tunalı, 2012, pp. 13-15). Aesthetics explores various features, such as the

beautiful, the sublime, and the ugly, as well as the relationships between the artist, the work of art and the viewer, and the nature of art itself. It also philosophically examines objects and phenomena that, while not considered art, are still subject to aesthetic evaluation (Taşdelen & Yazıcı, 2012, p. 6; Baç, Taşdelen, Yazıcı, İnan, & Taşdelen, 2007, p. 244). This is particularly relevant for architectural products, whose artistic status is often debated. Aesthetics forms its field of research with the basic concepts of aesthetic subject, aesthetic object, aesthetic value and aesthetic judgment (Baç, Taşdelen, Yazıcı, İnan, & Taşdelen, 2007, p. 243). However, it does this with a holistic approach, recognizing that aesthetic reality is only possible with the coexistence of these four fundamental elements. This comprehensive approach characterizes philosophical aesthetics (Tunalı, 2012, pp. 18-22; Taşdelen & Yazıcı, 2012, p. 6).

In the context of architecture, the aesthetic subject refers to the individual who theorizes about architecture and/or makes aesthetic judgments within the framework of architectural theory. The aesthetic object can broadly encompass architectural products in general and in an abstract manner or an evaluation of them, including evaluations of existing evaluations. When considered at an urban scale, the aesthetic object may also include natural settings, space-mass, surfaces, and silhouettes of a city. The dimension, form, location, distance, and direction relations between objects all influence the aesthetic value of urban spaces (Pehlivanoğlu, 2011, p. 11).

Youngson (1990, pp. 52-54) explains that our brain responds to the appearance of the built environment in two ways: intellectually and sensually.

"Previous knowledge and reflection are essential if we are to judge buildings … from the intellectual point of view. ... We can sometimes see in buildings references to other buildings, and therefore to other scenes and other societies, if we know enough. ... Looking carefully at buildings and trying to understand what they do and what they say and what problems they solve is thus a precondition of judging them. Thoughtful, well-informed and sympathetic examination may not lead us to like a building; but it should lead us to recognise its quality, including its aesthetic quality, if it has any".

The sensual way, "consists of human response to mass and space, to proportions, sequences, shapes, colours, textures and the like. To some extent this is a matter of taste and of what we are used to; but is not merely that. There are colours and surfaces, voids and proportions that naturally please the eye. … Responses such as these are close to the pole of pure sensual experience".

The external appearance of the built environment is a critical research area in urban design. It serves as a central focus for urban perceptualists and environmental psychologists who aim to understand how individuals react to the physical form of the built environment and to identify aesthetic concerns related to new developments (Dimitrovska-Andrews, 1992, p. 33). One such researcher, Kevin Lynch (1981, p. 118), proposed several performance dimensions that are significant for the aesthetics of development control:

1. Vitality: "the degree to which the form of the settlement supports the vital functions, the biological requirements and capabilities of human beings—above all, how it protects the survival of the species. This is

an anthropocentric criterion, although we may some day consider the way in which the environment supports the life of other species, even where that does not contribute to our own survival".

2. Sense: "the degree to which the settlement can be clearly perceived and mentally differentiated and structured in time and space by its residents and the degree to which that mental structure connects with their values and concepts—the match between environment, our sensory and mental capabilities, and our cultural constructs".
3. Fit: "the degree to which the form and capacity of spaces, channels, and equipment in a settlement match the pattern and quantity of actions that people customarily engage in, or want to engage in".
4. Access: "the ability to reach other persons, activities, resources, services, information, or places, including the quantity and diversity of the elements which can be reached".
5. Control: "the degree to which the use and access to spaces and activities, and their creation, repair, modification, and management are controlled by those who use, work, or reside in them".

Lynch (1981, pp. 118-119) also introduces two "meta-criteria", namely "efficiency" and "justice", which complement the five principal dimensions of settlement quality. Efficiency refers to the cost of creating and maintaining a settlement, while justice pertains to the distribution of environmental benefits and costs among individuals based on a principle. Justice seeks to balance the gains among individuals, whereas efficiency seeks to balance gains across different values.

However, these and similar concepts and theories, which form part of the aesthetic considerations for good urban design, have been criticized by

some theorists, such as Punter (1985), for focusing on physical form while neglecting its social, political, and economic context.

3.2. Environmental Aesthetics

When we get closer to the field of architecture, we encounter the related concept of environmental aesthetics, which can aid in an aesthetic approach to architecture. It is one of the major new fields of aesthetics that emerged in the second half of the 20th century. The growth of environmental concerns over the last third of the century significantly contributed to its development, reintroducing nature as a central topic in aesthetics. Although a relatively new field, environmental aesthetics has roots in 18th-century studies that examined the aesthetic appreciation of nature (Carlson, 2013, p. 485; Fisher, 2003, p. 667).

Environmental aesthetics focuses on philosophical issues regarding the aesthetic appreciation of a world that consists not only of objects but also of environments. Within this framework, it extends beyond the traditional appreciation of art and works of art to encompass the aesthetic evaluation of natural, human-influenced, and human-constructed environments (Carlson, 2013, p. 485). A material achieves power only from the moment a builder thinks about using it and uses it (Arpacıoğlu & Kuruç, 2010). This broad definition includes various fields such as city planning, landscape architecture, and environmental design, challenging the "object-at-a-distance" model commonly associated with standart aesthetic approaches (Fisher, 2003, p. 668). As such, environmental aesthetics provides a valuable tool for evaluating the built environment in general and architectural products in particular. Recent approaches in environmental aesthetics, which incorporate human environments, along

with the experiences and activities of everyday life to its field of research (Carlson, 1985; 2001; 2009; Parsons & Carlson, 2008), have linked it to traditional aesthetics and brought it into contact with the philosophy of "borderline" art forms such as sports, cuisine, gardening (Miller, 1993; Ross, 1998; Cooper, 2006; Parsons, 2008), as well as designing and building (Carlson, 2013, pp. 492-493).

Today, rather than emphasizing a single approach, environmental aesthetics embraces an eclectic research environment that integrates elements from different approaches, including the aesthetics of engagement, cognitive, imagination-based and environmentalist approaches, and the aesthetics of human environments and everyday life. For example, the role of materials in design is quite important in terms of how meaningful our searches are and how they add value to the spaces we will shape (Arpacıoğlu, 2010). Furthermore, its intersections with other philosophical fields, such as the philosophy of biology and feminist theory, are also being explored (Carlson, 2013, pp. 489-491, 493).

3.3. Aesthetic Control

Aesthetic control, also referred to as design control, architectural design controls, aesthetic land use regulations, architectural control, development control, or planning control (George & Campbell, 2000; Crumplar, 1974; Ünlü, 2006, p. 68), essentially involves regulating the appearance of additions and alterations to the built environment to protect or improve urban quality of life (George & Campbell, 2000, p. 164). This process typically involves the enforcement of building regulations to govern the external appearance of buildings and their relationship with their

environments (Nelissen & de Vocht, 1992, p. 347). Aesthetic control not only governs the external appearance but also considers:

- The design and architectural qualities of the development,
- Its visual relationship with its context and immediate surroundings,
- Its contribution to place-making through the spaces it creates, and to public realm in terms of activity, surveillance, safety and permeability,
- Its environmental qualities such as providing shelter and comfort microclimatically, as well as its broader environmental impacts on the ecology, energy consumption, carbon dioxide production, and other resources (Punter, 1985, p. 93; Punter, 1999, p. 86).

Through this approach, aesthetic control addresses practical issues like the "suitability of location and land use, quantities and mix of space, activity generation, functional layout and access, site characteristics and context, size, and massing and external appearance of development." Its goal is not only to achieve beautiful but also good urban design (Dimitrovska-Andrews, 1992, p. 35).

Understandably, definitions, attitudes, and approaches to (architectural/environmental) aesthetics and aesthetic control differ across national systems. In some countries, like Norway, aesthetics is defined as the visual quality of the built environment and its surroundings. In Belgium, aesthetic concerns are associated with concepts such as harmony, while in the Netherlands, aesthetics pertains to the design qualities of buildings. In Sweden and England, aesthetic control extends to broader environmental concerns, including health and conservation. Notably, in England, after substantial academic and professional criticism, the term aesthetic control was replaced with design control (in government advice)

in 1992, expanding its scope as described in the previous paragraphs (Punter, 1999, pp. 85-86). There has also been an expansion of building control by the government into "non-traditional" areas, such as designing “resilient cities” which incorporate building designs that are resistant to health and safety threats from terrorism and climate change, as well as using building control system to respond to socio-psychological and cultural issues related to place-making and sustainable urban living. This shift marks a departure from the traditional, physical or design-focused approach to building control (Hawkesworth & Imrie, 2009; Imrie & Street, 2009, p. 2508).

Nelissen and de Vocht (1992, p. 348) emphasize that while every country aims to maintain or promote a certain quality in the built environment, the tools and approaches employed vary significantly. In many Western European and North American countries, the framework for design or aesthetic control is well-defined. In addition to urban plans, these planning systems are integrated with design tools, such as design guides, design guidelines, design codes, and design briefs, which provide qualitative principles and criteria for urban form, urban settlement, landscape, and architecture. These tools facilitate both the emergence of a city’s character and public discourse on planning policies. As a result, the level of social acceptance of design decisions increases, and the process of managing urban change becomes more flexible and qualified (Ünlü, 2006, pp. 84-85).

However, some scholars argue that relying on building regulations or codes as the primary tools for housing and design quality is a partial and problematic approach. These tools merely prevent the construction of

buildings with certain undesirable characteristics. The minimum design standards in such regulations can be mistaken for optimal or best standards (Carmona, 2001; Goodchild, 1997; Karn & Sheridan, 1994; Goodchild & Furbey, 1986, p. 80).

Since aesthetic control typically comes into question during the implementation of planning decisions, it covers a process that is focused on the change in urban space (Ünlü, 2006, p. 69). While this control determines whether a building permit is obtained or not (Nelissen & de Vocht, 1992), Ünlü (2006, p. 88) describes a process in which a proposal is revised based on an evaluation of the area subject to change and subsequent feedback, as outlined below:

- Submission of the proposal,
- Preparation of a report by the local government regarding the proposal, in line with the principles set out in the “design framework”,
- Presentation of the new development to the residents in line with the report (design brief) and presentations on the planned development.

3.3.1. History of the Aesthetic Control

As a reflection of social, cultural or political contexts, the behaviors of,

- determining appropriate design decisions to be taken in architectural projects,
- creating, selecting or promoting a specific architectural style, whether "correct", "appropriate", or "national",
- proposing, imposing, supervising, providing education and establishing rules or legal frameworks for these approaches,
- applying this mindset to design decisions in interior and urban design scales can be traced back to antiquity.

However, the systematic implementation of such behaviors in the form of aesthetic control has existed for just over two hundred years. The history of aesthetic control is closely tied to the planning histories of various countries (Rezafar & Türk, 2016, p. 166). Interest in the aesthetic development and regulation of cities, alongside other environmental issues, arose as a result of the rapid urbanization encountered in different parts of the world in the early 19th century (Freestone, 2010, pp. 210-216). The industrialization of Europe and the United States during the mid- and late century, led to rapid population growth, uncontrolled business activity, great speculative profits, and public failures in managing the negative physical consequences of development. These conditions, characterized by corruption and exploitation, led to the Progressive Movement in the United States, which included urban planning efforts aimed at addressing issues such as congestion, slums, disorder, hygiene, and aesthetic concerns through engineering solutions, including improvements to water supply and sewer systems. These efforts were followed by health and construction standards legislation, such as the Public Health Act of 1848 in Great Britain and the New York State Tenement House Act of 1879 in the U.S. Housing quality gradually improved through new construction and laws (Fainstein, 2024). Zoning regulations, inspired by the architectural and urban design controls introduced in European cities at the end of the century (The Editors of Encyclopaedia Britannica, 2024), can also be seen as an aesthetic control mechanism.

During this period, European cities experienced a shift in planning practices, emphasizing artistic principles rather than opening streets through regulation plans. Architect Camillo Sitte, a significant figure in

this movement, proposed a picturesque and psychologically satisfying spatial organization rooted in the artistic legacy of the past. Sitte advocated for architects as champions of beauty rather than mere utility, viewing urban planning as not only a technical issue but also an aesthetic one (Hastaoglou-Martinidis, 2011, pp. 153-154). This approach, aimed at "humanizing" cities (Karakaya, 2010), persisted until the second decade of the 20th century (Rezafar, 2019, p. 24).

The Progressive Era, which extended into the early 20th century, led to the development of parks, playgrounds and facilities for games and sports in congested areas of the city. The construction of Central Park in New York during the 1850s and Haussmann's interventions in Paris under the Second Empire (1852-1870) were significant developments in terms of both health and visuality. Especially Haussmann's large-scale interventions became a model for Europe, the U.S., and developing countries, inspiring movements such as the City Beautiful Movement and the World's Columbian Exposition of 1893 in Chicago. The majestically positioned Neoclassical grand malls and civic buildings of the exposition set an aesthetic standard for other cities to emulate. Haussman's influence shaped city centers across European continent and America, while British social reformer Ebenezer Howard's "garden city" concept, characterized by suburban, low-rise homes on winding streets or cul-de-sacs and functional separation, determined the appearance of residential areas in the U.S. and Britain (Fainstein, 2024). Introduced in 1898, the garden city model emphasized decentralization on a macro scale and unity and symmetry on a micro scale (Bahrainy & Bakhtiar, 2016, pp. 14-15). Tony Garnier's *Cité*

Industrielle (Industrial City, 1917) which integrated home and garden, is another notable proposal of the time (Rezafar, 2019, p. 25).

From the 1920s to the 1960s, urban governance adopted a scientific-functionalist approach, which, while not entirely neglecting aesthetics, diminished its importance (Boyd, 2012, p. 126; Freestone, 2010, p. 39). However, in the U.S., starting in the 1930s, aesthetic regulations were gradually incorporated into urban planning laws. Initially, municipalities' ability to include aesthetic criteria in zoning regulations was contingent on their relationship to property values (Garvin & LeRoy, 2003). Concern for the "look and feel" of spaces resurfaced in the governance of the built environment during the 1960s with the rise of the urban design movement, which originated in North American urbanism (Punter, 2004; Talen, 2012). The environmental movement of the 1960s and 1970s led to the introduction of new land use controls aimed at managing aesthetic values (Ziegler, Jr., 1986, p. 12). The first laws on appearance and historical preservation emerged in the 1970s, to regulate the demolition and replacement of historical buildings. These laws focused mainly on the colors and materials of the façades. By the 1980s, billboard restrictions and regulations became widespread, and in the 1990s, additional tools such as neighborhood or "small-area" planning, special design districts, and tree protection laws in private development areas were implemented (Rezafar, 2019, pp. 28-29).

3.3.2. Cases For and Against Aesthetic Control

While aesthetic control aims to enhance the quality of the built environment, its necessity, feasibility, and objectivity are frequently

questioned. According to Punter and Carmona (1997, p. 39), design control:

- prevents poorly designed buildings, even if they are not visible to the public,
- raises development standards by emphasizing design,
- empowers architects to resist clients who may prefer the least expensive option,
- is democratic because it incorporates public opinion,
- is accountable, as decisions are made by elected representatives,
- bridges the gap between the tastes of professionals and laypersons.

George (1997) and George and Campbell (2000, p. 166) argue that several factors underscore the need for aesthetic control in the environment:

- The positive (and negative) impacts of the environment on individuals, whether consciously perceived or not,
- The involvement of numerous figures in determining the quality of urban spaces, the length of this process, and the variability of social, economic, and political conditions.

Despite these positive aspects, Dimitrovska-Andrews (1992, p. 35) highlights criticisms of aesthetic control and the promotion of aesthetic standards by planning authorities for lacking clear direction and intent. She identifies the following factors as diminishing the importance of aesthetics as a planning criterion:

1. The imprecise, variable and emotive nature of aesthetic considerations,
2. "The appeal of other more quantifiable inputs to planning such as economics, geography and sociology (land use, density, access)",

3. “The divergence between the legal and the aesthetic approaches to planning, the former based on law and precedent, the latter searching for the unique in every situation”.

Although these factors hinder the integration of aesthetics as a detailed control topic, many aesthetic policies are nonetheless developed and applied in practice. Specific criticisms of aesthetic control include:

- Designers perceiving aesthetic control as an intrusion into their profession (George & Campbell, 2000, p. 166) and contractors viewing it as a barrier that disrupts work, increases costs, and is often tried to be avoided (Nelissen, 2002, p. 50),
- Legal arguments characterizing aesthetic control as infringing on freedom of expression (Poole, III, 1987, pp. 322-330) and on broader rights of liberty and property (Regan, 1990),
- Aesthetic control being seen as an unfortunate act of government patronization,
- Aesthetic commissions being perceived as esoteric groups that make secret judgments on plans without considering the consequences of their advice, and whose practices have been subject to criticism (Nelissen, 2002, p. 50).

3.3.3. Design Review and Checklists as Prominent Aesthetic Control Tools

Various aesthetic control tools, including design guides, design guidelines, design codes, and design briefs, which are employed for design control in different countries, have been mentioned above. This section will focus on two specific tools: design review, commonly used in aesthetic control practices in the United States (Ünlü, 2006, pp. 73-74), and aesthetic control

checklists, recommended for managing the built environment in cities developing under the influence of neoliberal policies (Rezafar & Türk, 2018).

3.3.3.1. Design review

“Design review refers to the process by which private and public development proposals receive independent criticism under the sponsorship of the local government unit, whether through informal or formalized processes. It is distinguished from traditional (Euclidian) zoning and subdivision controls in that it deals with urban design, architecture, or visual impacts” (Scheer, 1994, p. 2).

Beyond this "restrictive" and "practical" definition, many differing and often conflicting definitions of design review exist in the literature. Some of these differences stem from the variety of contexts in which design review is applied, such as in historic residential districts or newly developed city centers (Jones, 2001, p. 28).

Design review serves as an important tool for designers to engage with others interested in the development of the built environment, including clients, neighborhood groups, and government agencies. It offers a platform for discussing the aesthetic quality of the built environment, recognizing that merely meeting clear, objective legal standards does not guarantee meaningful or inclusive communication about a design proposal. Design review represents a form of aesthetic control that is not strictly regulatory but rather a social act, grounded in communication and consensus among the involved individuals and groups. However, the success of design review depends on a deeper understanding of the social and communicative nature of architectural and urban design, as well as on

the inclusivity of the review process and the representation of all relevant parties (Jones, 2001, pp. 23, 30).

An important aspect of design review is its role in establishing and maintaining a community's identity. This raises critical questions: Who defines a community's self-image and its notion of good design? Do these definitions reflect the views of the entire community? Like planning and design more broadly, design review is subject to the processes of hegemonic control, and the subversion of resistance or alternative points of view. While design review enables local public control over development projects, it does not guarantee that this control will serve the interests of the entire community, or even its majority. Furthermore, design review does not ensure that diverse views will be considered or that consensus will be reached regarding a development proposal. In some cases, design review may be used to protect the interests of dominant social groups, silencing minority views or stifling debates over the aesthetic quality of a project (Jones, 2001, pp. 31-33).

Most jurisdictions develop design guidelines and review requirements to prevent developments that are seen as intrusive or aesthetically offensive. These guidelines often serve to protect familiar landmarks and social or cultural values from perceived threats posed by the unfamiliar, the foreign, or the different (Jones, 2001, p. 33). However, Lightner (1992, p. 281) warns of the potential risk of losing innovation and originality in the pursuit of contextual harmony. As design review becomes institutionalized in a community, Jones (2001, p. 34) observes that project proposals increasingly prioritize harmony with the existing built environment, potentially stifling creativity.

Current design review practices are often underpinned by the concept of "visual beauty interest", which connects the *a priori* interest in visual control of the environment to the notion of objective beauty (Jones, 2001, p. 32). According to this understanding, aesthetic standards are not human-made social constructs but independent ontological entities—discovered by aesthetic experts and codified into legal rules by policymakers (Costonis, 1982, p. 358). This approach, which has been embraced by legal and planning institutions seeking clear and objective criteria for assessing beauty, has its appeal. However, the focus on visual beauty interest often undermines the social character of the design process. A review process driven by such a perspective tends to resemble regulatory tools like zoning, subdivision ordinances, and building codes, reducing design review to a set of formulas that designers are expected to internalize. This approach does not necessarily require trained professionals on design review boards and tends to produce designs that comply with predetermined standards without questioning or challenging them (Jones, 2001, pp. 32-33).

In contrast to the idea of aesthetic ontology and objectivity, there is the understanding that aesthetic responses are shaped by social and cultural factors. From this perspective, there are no objective standards of beauty or universal aesthetic principles. Aesthetic values, like other values, are products of individual, group or community identities based on shared values. The response to an environmental feature, such as a building, is influenced by how the observer constructs its meaning—a process shaped by the cultural and historical factors that constitute social experience (Costonis, 1989; Knox, 1993; Boys, 1996).

3.3.3.2. Aesthetic control checklists

Checklists can be organized and presented as an alternative tool for aesthetic control. The use of checklists as a supplementary aesthetic control mechanism represents a novel and original approach to aesthetic control management. In contexts where,

- the state assumes the role of facilitator rather than provider (Stoker, 1998),
- diverse actors are involved in design and project development (Sager, 2011; Imrie & Street, 2009; Hawkesworth & Imrie, 2009),
- urban planning practices have become flexible under the influence of neoliberal policies (Rezafar & Türk, 2018),

checklists can offer a form of control that is "indicative, flexible, transparent and proactive" (Rezafar & Türk, 2021, p. 69).

4. Conclusion and Discussion

This study provides a comprehensive overview of the concept of aesthetic control from past to present. Given that humans are in constant interaction with their (built) environment—creating, organizing, and being affected by it—the significance of aesthetic control will remain vital for architecture and other disciplines concerned with the design and organization of the built environment.

At the end of the 20th century, Nelissen (1999) identified several key "trends" regarding the development and future of aesthetic control in European countries during the last decade of the century. These trends, summarized below, offer an important foundation for evaluating and questioning the current state of aesthetic control:

1. Aesthetic control is a prominent issue on both national and regional agendas across many European countries, and its importance continues to grow.
2. While there are understandable differences in the management of aesthetic control between countries, there is a gradual convergence of different systems.
3. The increasing power of the private sector is opening up the public's influence on aesthetic control to discussion.
4. In contrast to traditional tools such as zoning plans or land use plans, new aesthetic control tools are emerging that also address the third dimension, such as the Dutch visual quality plans.
5. There is a tendency towards integrating aesthetic control, which also focuses on historic areas, with historic building conservation.

These trends are particularly relevant for countries where aesthetic control processes have reached a certain level of maturity. They may also apply to nations that look to these countries as models or have adopted similar practices. However, the scarcity of academic literature on aesthetic control in the 21st century makes it challenging to assess both the current status of the topic and the continued validity of these trends.

The following questions, which address the necessity, scope, and limitations of aesthetic control, represent ongoing and critical points of discussion:

- Is aesthetic control, which involves both physical (formal) and sensory (perceptual) regulation of the built environment, truly necessary? Could its enforcement through police power be considered a totalitarian practice? How can we interpret the positive aesthetic

qualities of built environments that lack such control, or where it is internally realized "without architects" during the construction process?

- As Punter (1999, pp. 96-97) and Jones (2001, pp. 31-33) suggest, whose values are being upheld through aesthetic control in environments where such practices are established? Does aesthetic control genuinely enhance the quality of the built environment, or does it primarily serve to impose or protect the values of a privileged group?
- Efforts to reduce the restrictive nature of aesthetic control often result in the emergence of more formal rules, a phenomenon referred to as the deregulation paradox (Nelissen, 2002, pp. 55-56). What are the implications of this paradox for aesthetic control?

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Searching for Cultural Continuity in Vertical Design Studio: Galata Region as in Case

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1. Introduction

Galata, since the 5th century, has hosted various civilizations and emerged as a city established by the Genoese Colony, becoming an important center of culture and trade from the 11th century onwards. Recently, Galata has undergone functional and spatial transformations due to an influx of migration and changes in its demographic structure. Historically and spatially a point of convergence, the area continues to evolve in response to new global trends. Since 1990s urban transformation and gentrification projects for Galata district have been subjects for several scholars' research. While this transformation may appear ordinary in the context of the region's historical past, it significantly disrupts the everyday life and spatial practices of the residents. Consequently, existing cultural practices evolve within a daily life that is continually battered by varying demands, while also leading to the inevitable deterioration or inappropriate use of the current building stock.

In this context, the cultural practices referred to encompass the entirety of the functionalities of everyday life in Galata. The daily routines of the locals, the spaces they occupy, their work arrangements, and pedestrian flows are critical elements that define the character of the region. Within this dynamic, the impact of tourism not only disrupts the cultural fabric of the area but also displaces numerous functions related to daily life, imposing new functions, a new order, and consequently, new spaces and scenarios. The aforementioned commodification of spaces within the physical environment, along with newly introduced additions, reflects the reality of this place; however, it also poses a risk of Galata losing its urban identity.

In Mimar Sinan Fine Arts University (MSFAU), at the Department of Architecture, architectural design studios, the following were questionized concerning Galata as a research and a study place:

Can the transformations in Galata, in conjunction with global demands (which must not be dismissed as mere reality), prevent the degradation of the aforementioned everyday life within the context of local production/culture/daily life?

When considering the daily needs of all urban dwellers utilizing the area, what functions become prominent beyond the influence of tourism in the formation of the physical environment?

What is the significance of the physical environment in the formation of the cultural environment, and how can the results of such an analysis, specifically regarding the Galata region, contribute to the design process?

The common argument arising from these questions is the notion that the issues addressed in the architectural design process are derived from discussions concerning the cultural continuity of the subject matter and the location. It can be assumed that cultural continuity not only includes spatial continuity, but also the continuity of spatial and cultural practices. How this difficult to materialize issue in architectural education is discussed in project studios is the subject of this article. The aim of this study is to illustrate how the architectural design process, which seeks to answer the aforementioned questions, serves such a domain and derives its starting points from the idea of cultural continuity.

In this context, the study focuses on four projects that examine Galata's demographic and physical structure from various perspectives. Based on the gathered information, these projects aim to address the everyday life

and ongoing transformation within the area, ultimately strengthening the relationship between the social and physical environments.

The focus of the topic and site selection here is not merely to classify functionalities as new or old, but to analyze the everyday life in the area through its cultural practices.

Cultural continuity in everyday life is a complex issue that necessitates a multidisciplinary approach from architects, sociologists, urban planners, and city residents alike. The aim of the projects is to incorporate functions and local actors that contribute to cultural continuity, recognized as one of the key pillars of sustainability, into the everyday life of the region. Additionally, the projects seek to provide insights and recommendations regarding the overarching organization of the environment, guided by these elements.

The analyses conducted to understand both the existing cultural structure of Galata and the components of its dynamic environment are accompanied by inquiries into how culture and daily situations can be redefined, and further, how this redefinition can be spatialized. These explorations form the foundational approach of this design studio.

2. Material and Method

This article presents observations, interpretations, and analyses related to four distinct projects selected from the architectural design studio work at the Department of Architecture in MSFAU, involving students at various degrees. In addition to these, it includes architectural analyses concerning socio-cultural solutions. The aim is to understand and convey how the work conducted through student projects contributes to discussions about Galata in relation to the aforementioned questions and topics.

Before presenting the architectural choices related to the solutions offered for various problems selected in the region, each project establishes a significant observation and analysis based on daily life observations within its field. The functional and cultural necessities, transformations, and experiences identified through these analyses are supported by various proposals, and discussions are expanded in this direction. The projects selected and beginning to take shape hold the potential to foster discussions on different subtopics related to cultural continuity, which is the main focus of this article. Addressing the project examples through varying functional and scale approaches is significant not only for conveying the diversity within the region, but also for illustrating the structure of the vertical design studio system that stands out in the architecture education at MSFAU.

These subtopics can be summarized as follows:

- Interruption of Cultural Transmission
- Cross-Cultural Design
- Infill Projects at Historical Site
- Reinterpretation of Social Interactivity

Each of the headings presented here will be paired with a project that intends to integrate into the region through a distinct functional approach. This pairing can also be characterized as a product of the search between architectural practice and theory. This exploration evolves within itself, sometimes transitioning from the abstract to the concrete (from the conceptual to the project) and at other times from the concrete to the abstract (from the project to the conceptual), culminating in a presentation at the end of the 14-weeks period.

This presentation can be considered not as the end of the discussion, but rather as its beginning. The manifestation of an architectural project that has been contemplated, designed, discussed, and developed in response to needs will be opened to debate in evaluation juries, involving all architecture students and faculty members through various social and physical concepts presented by the subject matter.

In this study, the projects to be addressed through the four aforementioned headings will be examined in the context of cultural continuity:

- Identity
- Functionality
- Planimetry
- Morphology

These concepts aim to describe the distinct processes developed for each project throughout the course of project development.

3. Case: Galata District and The Projects at the Design Studio

3.1. The Cosmopolitan Structure of Galata

Rising from the shores north of the Golden Horn, Galata (Figure-1) was founded as a Western Latin and Catholic colony right next to Constantinople, the capital of Byzantium, an Eastern and Orthodox empire. Its owners changed between the Venetians and Genoese from time to time. But it always remained Latin and Catholic. The situation did not change much after the conquest of Istanbul. Although Mehmet the Conqueror settled Greeks and Jews in Galata and made it no longer Latin, it was still a non-Muslim settlement next to the Islamic capital (APK, 2001). Therefore, Galata has always been a relatively autonomous neighborhood with its political position and the Western and cosmopolitan

elements in its population structure. This cosmopolitan population structure and the nature of social life are characterized by Galata's development as an important port and trade center since its foundation. It is stated that this cosmopolitanism later homogenized and came to an end in the 1950s, when the rapid urbanization of the Republican period began to take place (Şen, 2006).

Galata is one of the rare places where Arabs fleeing from Spain, then Italians, namely Venetians, Florentines, Marseillais, and later French, English, Dutch, White Russians in the 20th century, Levantines and Turks lived after the conquest of Istanbul by Mehmet the Conqueror (Dalgıçer, 2011).

Figure 1. Historical Galata maps and photographs

Galata today has a dense urban fabric of masonry apartment buildings, many of which date back to the 19th century. Today, these apartment buildings's owners are also changing and their plan organization is being renewed within the scope of gentrification, preserving only their facades. As always, Galata residences today have had to submit to some commercial considerations in order to adapt to life conditions (Dalgıçer, 2011).

Until the late 19th century, living in multi-storey buildings with no gardens on adjacent and narrow plots was not the preferred choice of the elite. Therefore, these family-rental residences that emerged before the apartment buildings were generally preferred by the modest class (Öncel, 2010).

Since the second half of the 1990s, Galata neighborhood began to experience a spatial and social transformation in the form of gentrification. While owners of the property changed in this process, the socio-cultural structure also changed, although not at the same pace.

Forced migration policies imposed on minorities, the expansion of central business areas under the influence of capitalist policies, the development of transportation, the expansion of housing areas, and intensive migration from rural areas to Istanbul have been the causes of social and physical change in the urban areas of Istanbul. The central business areas on Karaköy-Galata line, which were effective until the 1950s, moved first to Salıpazarı and Fındıklı, and then to Şişli-Mecidiyeköy district in the 1970s with the construction of the First Bosphorus Bridge (Dökmeci, Dülgeroğlu, Berköz, 1993). With the changing economic approaches, private sector investments increased, and the middle class became economically stronger. Accordingly, the direction of urban development shifted from the cultural heterogeneity of the old inner city areas to the newly established and more homogeneous neighborhoods (Keyder, 2000). The existing buildings on the parcels in which the projects exemplified in this article are located date back to the 19th century.

3.2. The Projects

3.2.1 Interruption of cultural transmission

The fundamental approach of this project discussed here involves the development of infill projects for different units (library, information center, gallery) associated with an institute across various areas of Galata (Figure-). In the approach considered to be at the level of Architectural Project Studio 1 (4th semester) at MSFAU, the proposed route in the design determines the project's internal circulation as well as its integration into the city.

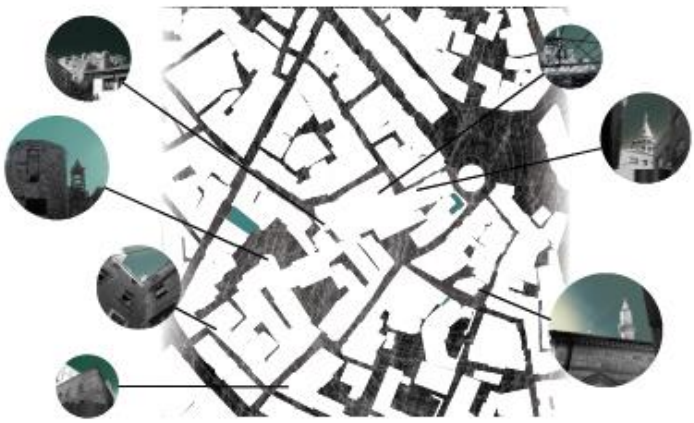

Figure 2. Site Plan, MP1Anne Sauter, Güldehan Atay Design Studio-2013

Identity

In this context, identity has been addressed in a manner suitable to the multifaceted nature of Galata (Figure-3). Primarily, the studies conducted to understand the region focus on exploring the types of functional groups present or to be established within the area, while concentrating on everyday life. Beyond drawing inferences from historical layering on maps, the contemporary daily dynamics form the project's starting point.

In this framework, cultural points belonging to the institutions in the region are utilized to create designated stopping points for a bank. These stopping points are intended to serve not only the residents, but also short-term tourist groups visiting the area. Thus, recognizing the significant presence of tourism in this region, it is anticipated that these stopping points will be created with an inclusive identity.

Figure 3. Facades, MP1Anne Sauter, Güldehan Atay Design Studio- 2013

Functionality

The functions addressed here—such as the library, information center, and gallery—are selected from a group of functions that are integral to everyday life in Galata, based on students' observations. Consideration has been given to the daily routines and routes of both residents and visitors. Particularly, the area is frequently used as a cultural and artistic hub by young people, accommodating various units like the library, exhibition space, and information center within the project's functional group. The selected areas in the project establish a circulation path that defines movement within the site, thereby establishing the relationship between the interior and exterior through circulation.

Planimetry

In this project, spatial organization, which engages in the discussion at a later stage, is integrated within a flexible framework that follows the aforementioned functionality. The open plan configuration allows for the smaller areas to be utilized holistically without excessive partitioning, thereby facilitating a more efficient engagement with the intended functions. Vertical circulation areas have been prioritized in the planning process. The core area is designed to be as limited as possible within the existing layout, ensuring that it does not disrupt the overall spatial continuity of the remaining spaces.

Morphology

Given that this is an infill area project, morphological elements can be observed to quietly come into play within the more constrained project space. The infill spaces, which establish themselves among existing structures, contribute to the street configuration in a spontaneous manner. This maneuver, carried out without any specific morphological goal, often manifests itself somewhere between conforming to and diverging from the unique texture of the site.

3.2.2. Cross-Cultural design

Recognizing the cultural differences and dimensions that influence design fosters an inclusive approach during the production process. Galata, with its inherently chaotic structure, necessitates such an approach due to its complex demographic makeup. The diversity related to user identity constitutes one of the fundamental motivations for the approach taken in this project (Figure-4) selected at the Architectural Project Studio level-2 (5^{th} semester).

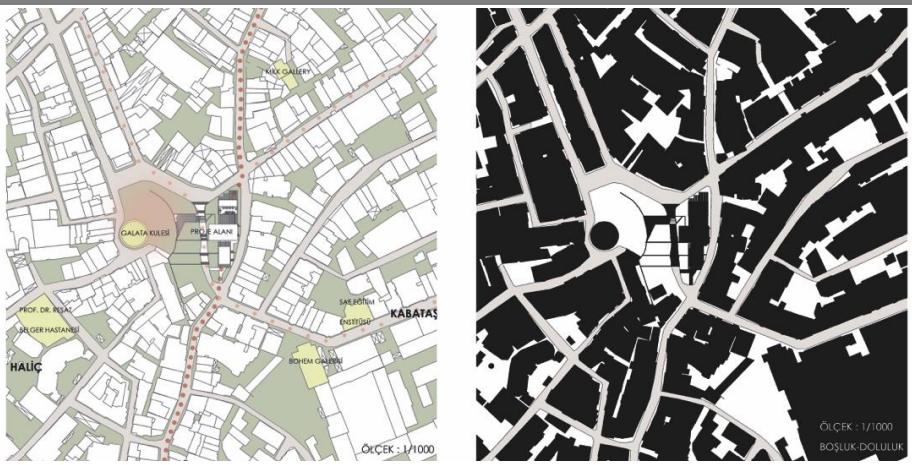

Figure 4. Site Plan, MP2 Cantuğ Yıkar, Güldehan Atay Design Studio-2012

Identity

In this project, it is not the identity related to the local context that is emphasized, but rather the identity of the user. The user focuses on finding a personal identity and remaining within it, beyond feelings of belonging and ownership to the place. Functionality recedes into the background, not asserting its own identity; instead, the spaces are designed to evoke a sense of belonging in the users, thereby revealing the identities of the urban dwellers for a certain period.

Among the elements that constitute the identity of the building, topography holds a significant place as it seeks to establish a relationship with the site. The opportunities provided by the topography are actively utilized within the project (Figure-5).

Figure 5. Perspective-Section, MP2 Cantuğ Yıkar, Güldehan Atay Design Studio- 2012

Functionality

Considering the chaotic structure and circulation of the site where this building is in the city center, it has been designed as a multifunctional space. The structure, which includes a café, library, art gallery, and retail units, leverages the topography to create distinct structural identities on each floor. This design allows different users to engage with everyday life by coming together at times and spending time in various spaces. In this context, an open-ended functionality can be discussed.

Planimetry

In connection with the mentioned functionality, the planning structure has been designed with a flexibility that allows for continuous redefinition across different levels (Figure-6). Notably, the multifunctional use of the

exhibition hall, which can be adapted to the changings for the exhibits, is conceived to dissolve the rigid boundaries of planning.

Figure 6. Perspective-Site Plans, MP2 Cantuğ Yıkar, Güldehan Atay Design Studio- 2012

Morphology

The relationship of the building, positioned at different elevations based on topographical data, with the urban context varies across each level. This approach significantly alters the overall morphological structure of the building. While the building adapts to the region in terms of site plan and mass formation, it emphasizes divergence in terms of the dimensions and materials used in the façade, contrasting with the general conditions of the area.

3.2.3. Infill in historical site

At the level of the 3rd Architectural Design Studio (6th semester), in this project, the program has diversified to include a performance hall as part of a multifunctional structure in the same area (Figure-7). This study involves an infill structure adjacent to an existing synagogue and a blind wall of an apartment on the opposite side, situated within an area framed by the old city wall. The complex houses spaces that residents may need in their daily lives, including a performance center, library, and work areas.

Figure 7. Analyses, MP3 Çağla Yılmaz, Güldehan Atay Design Studio-2017

Identity

The architectural composition developed to harmonize with the surrounding fabric leans against the blind walls of neighboring buildings, creating a contiguous fabric that is consistent with the identity of the street layout, thereby rendering its internal dynamism independent. The relationship established with the wall at the back defines the open spaces of the building complex. An arrangement that hosts various activities, such as gatherings and performances, constitutes an essential part of the complex.

Functionality

The building complex is designed as a performing arts center, incorporating spaces that support the performance hall within the architectural composition. These spaces, including workshops, study rooms, a library, and a café, are particularly intended for activities catering

to the local youth. The interconnectivity between these areas is crucial for the circulation within the complex (Figure-8).

In the open areas, a similar continuity of functions is maintained through a design that facilitates the transition between the street and these hidden spaces, achieved via semi-public areas. This interconnectivity is resolved through a system in which elements such as exhibition spaces, lobbies, and shops are naturally integrated into the overall composition.

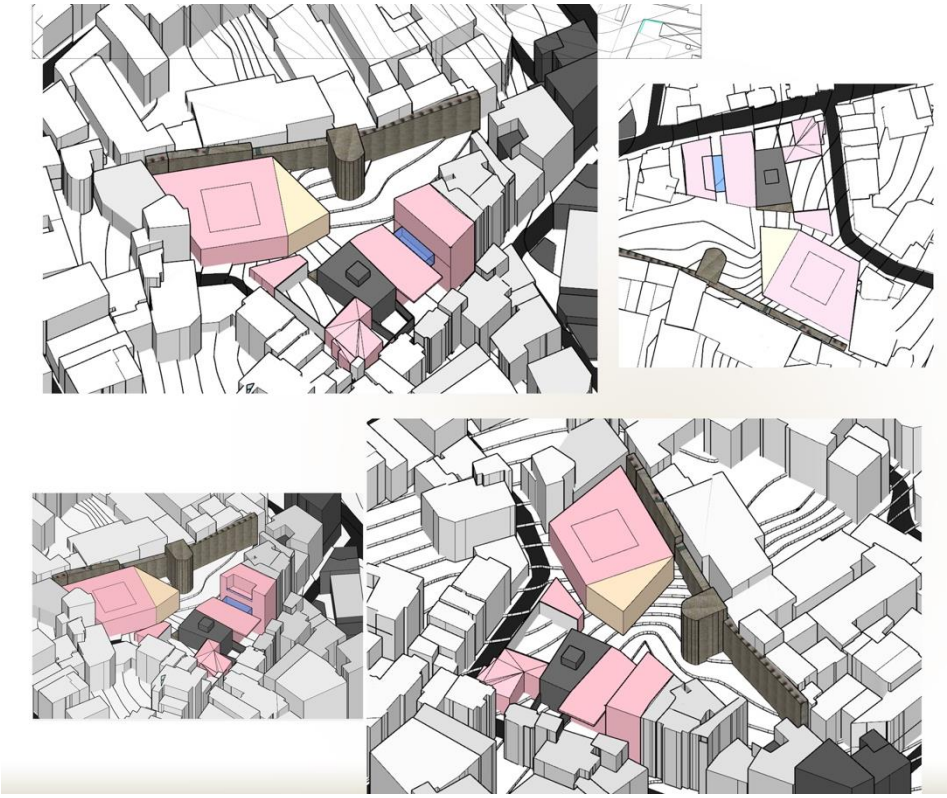

Figure 8. Perspectives, MP3 Çağla Yılmaz, Güldehan Atay Design Studio- 2017

Planimetry

In terms of planning, the contiguous street layout is pivotal. The building complex is organized to adhere to the blind walls of existing structures

(Figure-9). Meanwhile, the freed facades indicate areas where the building asserts itself and establishes an internal-external unity.

The composition within the building complex is particularly shaped around open and closed circulation areas. The planimetric design can be likened to an open-ended work, like previous studies. Summarizing the planimetric arrangement of this multifunctional complex, it can be described as a combination of small, modular units for work and retail alongside spacious areas that accommodate a wide range of activities.

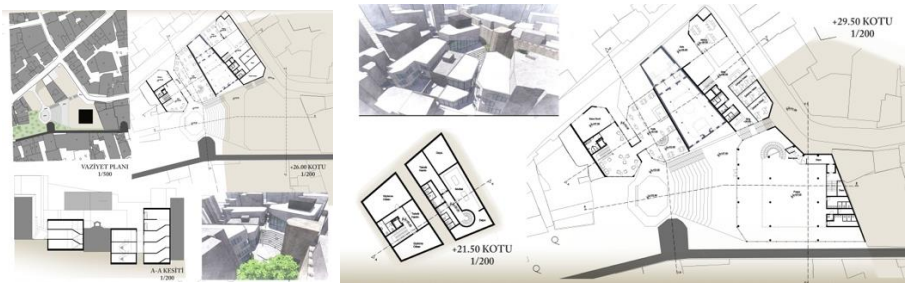

Figure 9. Plans, MP3 Çağla Yılmaz, Güldehan Atay Design Studio- 2017

Morphology

Morphologically, the building complex exhibits a harmonious relationship with the street. Rather than presenting itself as an isolated structure, it functions as a cohesive complex that seamlessly integrates with its surroundings, thereby ensuring the continuity of the street's character through an inherently adaptive approach.

3.2.4. Re-Interpretation of social activity

The project, which operates at Architectural Design Stuido-4 (7^{th} semester), begins with an analysis of the urban scale in relation to the region. The site's location, situated in a highly trafficked area, necessitates considering various factors—such as pedestrian flow, urban circulations,

the surrounding demographic structure, and physical inputs—into the project's development process to understand alternative production approaches (Figure-10). Urban connections serve as a crucial input for projects at this level, contributing to the formation of key nuclei within the project.

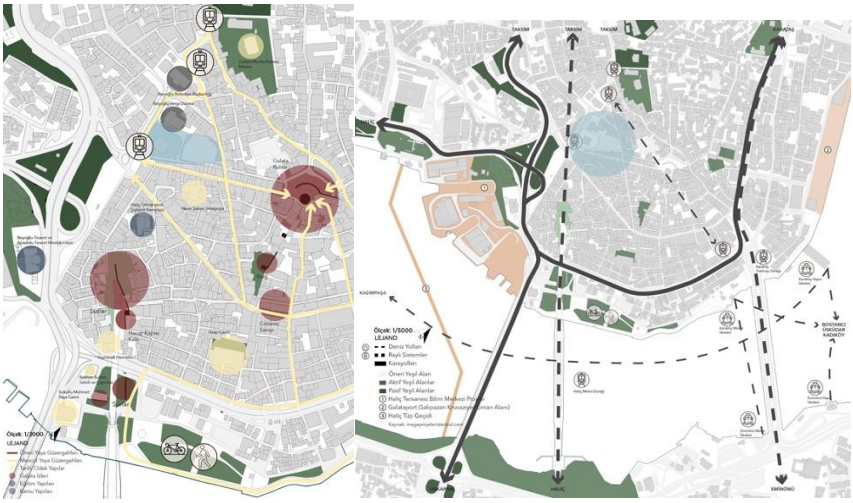

Figure 10. Analyses, MP3 Dilara Uçar, Güldehan Atay Design Studio-2014

Identity

The multifaceted building complex is designed not only for exhibitions but also to accommodate a variety of activities. The museum is constructed with the capacity and identity to host these activities, incorporating both open and enclosed spaces (Figure-11).

The identity construction of the building is closely linked to guiding pedestrian flow, establishing a unique approach tailored to the site. A system is envisioned that allows pedestrian movement from all directions. In this context, the structure leans more towards being an open-ended, adaptable system rather than a singular, enclosed composition.

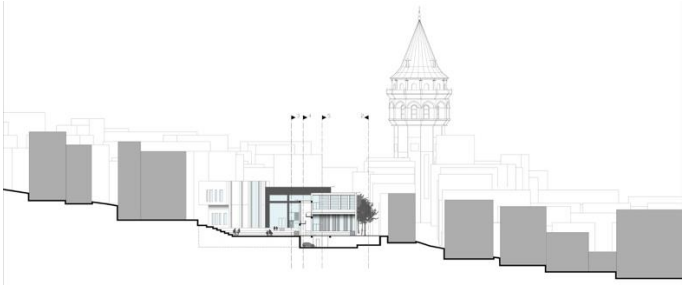

Figure 11. Section, MP3 Dilara Uçar, Güldehan Atay Design Studio- 2014

Functionality

The black box mass, one of the most prominent elements of the mentioned multifunctional structure, is supported by a lively foyer facing the street. Behind it, a multipurpose hall and exhibition spaces ensure the system's functionality, with an interconnected corridor system that facilitates pedestrian flow while also creating areas for pauses.

Although it contains distinct functional elements, the building acts as a transitional space that connects different streets. The relationship between the square and the streets is particularly emphasized by the administrative building's adherence to the blind wall, which establishes the entrance area. In this regard, access from both directions transforms the building into an urban corridor.

Planimetry

The building complex demonstrates its planning flexibility through a series of elements arranged along an elongated linear structure, expanding by adhering spaces to this framework (Figure-12). The corridor, in this context, serves as an aggregator for the various functional areas. The main spaces reassert their identities within more isolated environments, emerging anew each time. This approach that liberates the primary spaces

also establishes the relationship between open and closed areas, creating a connective quality through the corridor.

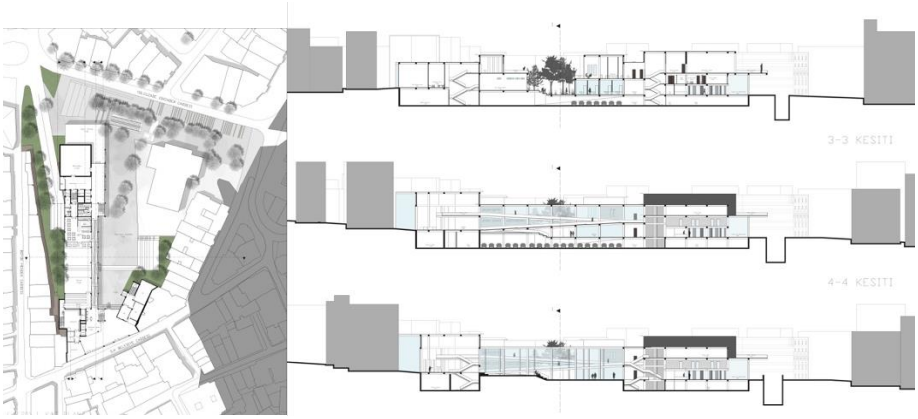

Figure 12. Site Plan-Sections, MP3 Dilara Uçar, Güldehan Atay Design Studio- 2014

Morphology

The building complex finds its interface within the urban scale, which can fragment and divide in numerous ways or merge and expand as needed. This flexibility is also reflected in the building's formal characteristics. Here, rather than adopting a symbolic meaning in the plasticity of the complex, a more systematic and rational approach is embraced. This rational stance contributes to the urban silhouette through the juxtaposition of massing at different scales. This approach not only references the historical amalgamation of the area, but also supports harmony within this dynamic part of the city.

4. Findings and Discussion

One of the most notable characteristics of Galata is its rich cultural diversity and its ever-evolving demographic structure. Consequently, the cultural continuity here can be characterized as a manifestation of cultural

transmission that, in contrast to gentrification, represents a localization of a situation that continuously diversifies and responds to the formations in the area.

This localization is organized not as an abstract planning solely for visitors, but in a way that ensures the continuity of daily dynamics. This organization considers the residents as users of these spaces, framing them within a flexible structure that allows for user engagement and adaptability.

The common characteristic of the examples presented in the study is their flexibility and open-endedness in planning, which simultaneously imbues the spaces with different identities throughout each usage period. This continual re-evaluation of identity manifests itself organically within the daily life of the area, aligning with the vital dynamics of the neighborhood. The projects addressed in this study aim to adapt to the daily life order here while ensuring access to these areas that constitute significant points in the city. They strive to reveal internal permeability, identify pedestrian flow points, and uncover the potential for public and semi-public space uses. Initially, the project studies attempt to make some statements about cultural continuity; although they occasionally fulfill this promise, they partially achieve their goals in this context.

5. Conclusion and Suggestions

The subheadings *Identity, Functionality, Planimetry*, and *Morphology*, particularly addressed in the case study section, form significant cores in discussions about cultural continuity among students at various levels in the architectural design workshop. In the context of the Galata district, the

issue of cultural transmission and continuity, which plays a crucial role in daily life, serves as the starting point for these discussions.

The study emphasizes the necessity of addressing cultural debates through distinct themes specific to each region. This requirement compels the exploration of site-specific physical (natural and built environment) and social (demographic) structures. Particularly, the need to integrate social structures with physical conditions shapes the foundational discussions in the initial weeks of the studios.

In the introduction, the study poses several questions, including whether the development of the Galata region, in the context of global demands (which should not be dismissed as mere reality), can prevent the degradation of daily life along the axes of local production, culture, and daily activities.

It also inquires what functions become prominent when considering the everyday needs of urban residents beyond tourism in shaping the physical environment. Additionally, the study explores the significance of the physical environment in forming the cultural context and how such an analysis and its results can contribute to design specifically in the Galata region. These questions are developed through four different projects discussed in the case study section.

Kim (2015) discusses the continuity in architecture through concept of interiority which integrates an architectural space and an urban open space. "Architecture does not break both the spatial and the temporal continuities of form. The form of the continuity ought to be considered as a principle of architectural design methods in that it creates the the meaningful form for our spatial existence in the course of time and the given physical

environment" (Kim, 2015, p. 82). The discussions surrounding social needs that shape spatial organization determine the program for the space. Therefore, we can assert that the discussions and the dialogues in the studio provide significant insights not only into spatial considerations, but also into social structures.

In this context, in this study, it is presented that the issues addressed during the architectural project production process, particularly through one of the MSFAU architectural design studios mentioned in the introduction, stem from the subtopics related to the cultural continuity of the study's subject and location.

However, the projects presented at different scales here demonstrate that there is not a single methodology for the project design process. On the contrary, particularly in the vertical design studio, the process is educational regarding diversity and lays out discussion topics related to project design as a common ground. These topics vary in each stuido group of every term.

Undoubtedly, the idea that cultural continuity can be achieved through architectural design is a hypothesis that is difficult to prove. Although the article does not make this claim, it exemplifies how the issue of cultural continuity can be addressed in architectural education. The presentation of such studies aims to go beyond merely outlining the subtopics of project design processes; it seeks to reveal the differences in process-oriented approaches to defining processes and to create a discussion platform concerning various project groups to be addressed in this context.

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Sustainable Awareness in Sustainable Children's Spaces

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1. Introduction

Nowadays, the increasingly consumption-oriented life culture drives people to new searches in order to protect rapidly depleting natural resources. For example, the use of energy based on fossil fuels cause environmental damages such as climate change, the destruction of ecology, and natural resources and the rapid depletion of fossil fuels is an important problem (Çelebi & Arpacıoğlu, 2022). A society that consumes more than it produces cannot be said to use existing resources efficiently. Using sustainable and renewable resources efficiently for a sustainable life is important (Özcan, Çelebi & Arpacıoğlu, 2022). From this perspective, it can be said that sustainable architecture has become a necessity rather than a luxury. This approach, which aims to reduce resource consumption, is possible by building structures that are environmentally compatible, protect and protect human health, and promote economic justice (Tavşan & Yanılmaz, 2019). In order to build sustainable buildings, sustainable awareness must be created at all levels of society, and children are at the most important level.

The social and physical environment is effective in child education. According to Piaget, knowledge is obtained through interaction with the environment. In this context, children learn as a result of their interactions with their physical environment and their communication with individuals in their social environment. Today, child-focused education approaches, which are based on the relationships established with the environment and the experiences gained, developed on the basis of factors such as children's development levels, needs, and the characteristics of the environment they live in, and based on the principle of learning by doing on their own, are

implemented throughout the world. By providing education in an environment where the child's decisions and freedom of choice are respected, the child is given a sense of responsibility from an early age. Through activities that allow for individual and group work, independent thinking, decision-making and implementation skills, as well as the ability to participate in decision-making within the community and adapt to the decisions taken, are developed. In this way, children, who are the building blocks of society, are raised from a young age as conscious generations who are curious, inquisitive, able to take responsibility, and sensitive to the environment (Çınar & Yamaçlı, 2019).

The child's behavior is determined by the places/physical environment he/she is in rather than his/her characteristics such as personality and intelligence. For this reason, the immediate surroundings of residences, urban spaces such as schools and children's playgrounds, and all children's places where children interact and constitute their physical environment, are of great importance in becoming a member of society, socializing and developing. In line with its importance in the development of the child, making the physical environment more livable for the child has gained importance, especially in Northern European countries, and various studies, projects and practices are carried out in these countries. The most prominent of these efforts are Child Friendly city initiatives. Other studies and applications can be examined under the headings of streets, school gardens, children's playgrounds and the child's transportation between school and home.

The needs program for children, especially for children, is specialized; In all children's places such as learning environments, children's museums,

children's libraries, children's hospitals, children's centers, children continue their perceptual-cognitive development as well as their physical development. Children are in their simplest dreams in their intuitive perception. They learn in the simplest way through play. In this context, all children's spaces are learning environments. If it is desired to raise awareness of sustainability in children, all children's spaces must be designed as sustainable and all criteria that ensure sustainability must be clearly expressed in a way that will guide children to learn by experiencing. Because children reinforce learning by doing and experiencing. For example, the most important goal of creating a green children's library is to promote environmental literacy. Environmental literacy means knowing environmentally friendly practices and turning them into behavior. Measurable gains from environmental literacy education will be green practices such as recycling, energy saving and nature conservation.

1.1. Sustainability

The word “sustainability” is a concept that has no equivalent in the Turkish dictionary published by the Turkish Language Association. The English meaning of this word is defined as "the capacity to be permanent". At the same time, this word also expresses “dependence on an optional external factor”. In other words, the sustainability of something depends on its preferential use by a will, even if all conditions are suitable (Bulut & Polat, 2019).

The concept of sustainability was included for the first time in the World Charter for Nature document adopted by the International Union for Conservation of Nature (IUCN) in 1982. According to this condition; “It

is envisaged that the ecosystem, organisms, land, sea and atmospheric resources used will be managed in a way that will achieve optimum sustainability, but this will be done in a way that does not endanger the integrity of ecosystems and species." (Kamaraj et al., 2019). The concept of 'sustainability' was defined in the Brundtland Report prepared by the World Commission on Environment and Development in 1987 as "meeting today's needs without depriving future generations of their ability to meet their needs" and has been widely used since then.

In this context, it is possible to come across many different definitions of sustainability. Tekeli (2001) defined sustainability as a widely accepted moral principle that emerged within the environmental movement and whose content is constantly being redefined within the political process. İncedayı (2004), on the other hand, accepts sustainability as basically a reform process in the mind, but says, "Like every thought process, sustainability requires a political choice or attitude. "Unless today's environmentally unsustainable consumption patterns are changed on political, economic and cultural basis, questioning a sustainable environment will remain an empty goal." He expressed it with an approach like (Tavşan & Yanılmaz, 2019). Sustainability is ensuring the continuity of the diversity and self-reproduction of ecological systems. Sustainability is an understanding that causes changes in the thought system without reducing living standards. This change occurs with the formation of a society that moves from a consumerist society to one that takes social responsibilities, is environmentally sensitive and produces economical solutions (Bulut & Polat, 2019).

The starting point of the concept of sustainability focuses on preventing environmental problems that arise in parallel with economic and technological developments and protecting the ecosystem. Sustainability, which is the slogan for the 21st century, promises the hope of social evolution towards a more equitable and rich world in preserving the natural environment and cultural achievements for future generations (Kamaraj et al., 2019).

Sustainable development means meeting the needs of the present without consuming or harming the resources of the generations that will replace us in the future. According to the definition made by UNCED (1992), sustainable development; "It is the organization and improvement of people's living standards in a way that contributes to the living space around them." Sustainable development refers to keeping values alive and at the same time developing continuously, and it is an important concept in terms of providing all humanity with the right to live in a healthy environment, which is one of the fundamental rights defined by the United Nations. When the goals and scope of sustainable development are examined, it is seen that future generations are constantly mentioned (Bulut & Polat, 2019).

In order to better understand sustainable development, it is important to examine the basic framework of the subject in more depth. According to Van den Branden (2012), sustainable development;

1- It aims to meet the basic needs of all people and expand the opportunity to fulfill their desires for a better life. This means that societies should aim to meet human needs by both increasing productive potential and providing fair opportunities for all.

2- It meets today's needs without compromising the ability of future generations to meet their own needs.

3- It does not endanger the natural systems that support life on Earth: atmosphere, waters, soils and creatures.

Economic efficiency, social justice and environment are the three basic components of sustainable development. The difficult part that has not been taken into account sufficiently until now is the integration of environmental and social dimensions into today's economic model. In order to achieve this integrity in sustainable development, everyone's participation must be ensured, precautions must be taken before it is too late to take action, and awareness of protection and responsibility must be established (Bulut & Polat, 2019).

The rapid population growth after the industrial revolution and World War II caused some changes in the lifestyles and needs of societies. Mass production, which has become a necessity with population growth, has led to uniformity in designs. Until this period, designs were made by craftsmen, but from this period onwards, they were left in the hands of designers in order to prevent monotony (Tavşan & Yanılmaz, 2019).

The environmental impact of the product has not been taken into account in product design for a long time. However, the rapid depletion of resources and the sudden increase in environmental pollution have brought the concept of eco-design to the agenda. Discussions on the environment have gained importance due to the impact of global threats in the 21st century. Eco-design approaches, considered in a wide scope, have given rise to the concept of 'sustainable design' over time. Sustainable design is evaluated according to the performance of the product from its production

to the end of its life. In this context, a sustainable design should include basic criteria such as being renewable, providing heat and energy savings, minimizing waste, ease of maintenance and repair, and easy assembly features (Tavşan &Yanılmaz, 2019).

Various definitions have been made by different researchers for sustainable architecture, which is also referred to as green architecture and ecological architecture in the literature. According to Oktay (2002), although sustainability is considered new conceptually, it is very old as a world view. The use of local data such as vegetation, topography and especially climatic features in design has been one of the smart solutions that constructionists have emphasized and used since the time when the first building examples appeared. Sev (2009), in his book "Sustainable Architecture", defines sustainable architecture as "one that prioritizes the use of renewable energy resources, is environmentally friendly, uses energy, water, materials and the area effectively, taking into account future generations, in its current conditions and in every period of its existence." defined as "all activities of creating structures that protect people's health and comfort". To summarize; It can be said that sustainable architecture is to consider the benefits of the environment in which the building is located throughout its life cycle by using existing resources and conditions in a production-oriented manner rather than consumption (Tavşan & Yanılmaz, 2019).

One of the criteria of sustainable architecture is that construction systems cooperate with ecological systems throughout the life of the building and allow the design to complete its life cycle with minimal damage to the environment. Building materials and components cause harmful effects on

the environment due to the natural resources they consume throughout their life cycle and the emissions generated at various stages of this cycle (Çelebi & Arpacıoğlu, 2023). A sustainable building designed for its purpose should provide a minimum destructive and maximum positive impact on the environment. Ensuring sustainability in the building is directly related to criteria such as the building consuming the least amount of energy during construction and use, being able to produce self-sufficient energy, and having technology that will contribute to the environment when necessary. Thanks to these criteria, the building contributes to sustainable architecture.

Sustainability is not always an approach that can be applied at the new building design stage. Demolishing and rebuilding buildings that have expired over time is an anti-sustainability action. Some changes to be made in the structure, materials and space organization of existing old buildings will provide significant savings in terms of materials, energy and resources and contribute to economic development (Tavşan & Yanılmaz, 2019).

For a livable environment, the aim of protecting the ecosystem should be prioritized while meeting the comfort and needs of the user in the phases of buildings from construction to use and demolition. Green ergonomics; As a concept that has recently emerged with sustainable development processes, it is related to the importance of the human factor in reducing consumption and protecting the environment. Green ergonomics focuses on the interaction of human systems and nature. According to this definition; While green buildings take care of the welfare of both ecological systems and those who use these buildings; should be designed as environmentally friendly buildings (Kızılkan & Türkyılmaz, 2021).

According to Kim and Rigdon (1998), sustainability in the context of architecture is achieved with three basic principles:

1. Conservation of resources; reduce, reuse and recycle,
2. Life cycle,
3. Humane design.

Kohler (1999) stated that sustainable buildings consist of ecological, economic, social and cultural sustainability components and that these components are sustainable building design principles. In 1999, C.I.B. (International Council for Research and Innovation in Building and Construction) explained the concepts of ecological, economic, social and cultural sustainability in more detail; It has revealed the basic goals in sustainable buildings. These goals are; reducing the use of resources, protecting and improving the environment and natural environment, ensuring human health and comfort at the highest level, and taking into account the socio-economic, cultural and political realities of the place.

Becker (1999) explains sustainability in three basic categories:

1. Economic processes,
2. Social processes, patterns and factors,
3. Decision-making process and institutional arrangements.

Sachs (1999) divides sustainability into four parts:

1. Social sustainability and its result, cultural sustainability,
2. Ecological sustainability,
3. Economic sustainability,
4. It is political sustainability.

According to Willamson (2003) and Bilge (2007), the data that gave rise to the concept of sustainability are divided into three:

1.Ecological data,

2.Economic data,

3.Political, social-cultural data.

According to Pressoir (2008), sustainability consists of three components:

1. Ecological sustainability,

2. Economic sustainability,

3. Social and cultural sustainability (Figure 1).

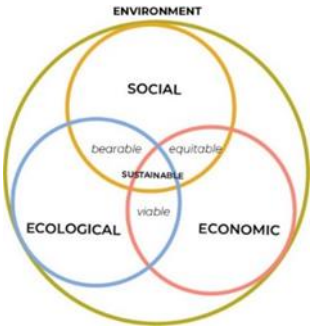

Figure 1. Sustainability components (Url-1)

1.2. Children, Environment and Space

Children are defined as important actors in their current and future lives. Attitudes and behavioral characteristics developed in children at a young age lay the groundwork for future behaviors. In a study conducted by Costa, Barcala-Furelos, Abelairas-Gomez & Arufe-Giraldez (2015), the effect of a structured physical education program on the psychomotor development of preschool children was examined. The research was conducted by applying a 24-week program including balance and coordination skills with 95 three-year-old children attending public kindergartens in Portugal, 47 of whom were divided into the experimental group and 48 of whom were divided into the control group. As a result of the research, the importance of psychomotor movements in terms of

helping children recognize their own bodies and supporting all areas of development, especially cognitive development, was emphasized, and after the program applied to children who were almost at the same level in terms of psychomotor development at the beginning of the study, those in the experimental group improved coordination, balance and body posture compared to those in the control group. It has been observed that there is a significant increase in flexibility and endurance skills.

In the first stage of life, learning is associative and rapid. The first phase of life, from the prenatal period until approximately age eight, creates tremendous potential for developmental growth. In the study conducted by Lehrl, Kluczniok & Rossbach (2016) to examine the role of quality pre-school education in improving mathematics skills in primary school, it was determined that children who received adequate and quality education in mathematics in the pre-school period showed higher success in mathematical skills in the primary school period compared to children who did not receive it (Bulut & Polat, 2019).

During childhood, individuals' communication with architecture generally focuses on educational environments. Architecture cannot be considered independently of social relations. In this context, the relationship established between the child and architecture arises through the child's experience of architecture. Conscious and well-designed educational environments support child education and the learning process. When viewed from the perspective of the social aspect of architecture, the right to participation, which means that children have a say in the issues that concern them, is used in the formation of the social and physical environment, and when it is used in the formation of the social and physical

environment, children who have these experiences learn better; they develop a sense of belonging, ownership and responsibility; They are known to exhibit democratic and entrepreneurial behavior. In this context, the child's participation in architecture in educational environments occurs when the child experiences architecture from an early age. The social and physical environmental experiences that children begin to acquire from an early age in well-designed environments are the first step in creating a sustainable future (Çınar & Yamaçlı, 2019).

The awareness of providing a livable environment for today's and future generations can be conveyed more effectively through training given from an early age. Early childhood education has an important position among other education processes. Basic habits and cognitive abilities are rapidly formed between the ages of 0-6. While pre-school education generally begins in the family and home environment until the age of three, there are many studies that emphasize the importance of programs in kindergartens or kindergartens for children to gain emotional and behavioral development between the ages of 3-6 (Kızılkan & Türkyılmaz, 2021).

Because of the value judgments and behaviors that generally begin to form in people's childhood, it is important for people to meet nature at an early age and to develop respect and love for nature. Learning in this affective field paves the way for the formation of environmentally friendly behaviors to protect the environment. For example, by making preschool children play nature-loving games, they become aware of the beauties of nature with all their sense organs; In this way, they can learn that nature is a value and make efforts to protect it (Bulut & Polat, 2019).

1.3. Sustainability and Children's Spaces

Talking to children about sustainability and raising sustainability awareness in children is an extremely important issue. First, we need to help our children understand what sustainability is. Although sustainability is a broad concept, it is fundamentally based on realizing how we affect our Earth and understanding what kind of world we leave to future generations.

This concept can appear in every area of our lives. Sustainability can appear in many parts of our lives, from recycling to gardening or the items we plan to use. The best way for children to learn is to teach them by doing. If we want our children to live in a better world in the future, we need to at least take precautions from now on and ensure that our children internalize sustainability.

The view that children's spaces should be considered as a learning material in itself increases the value of sustainable space designs. Educator Taylor, who advocates this view, argues in his quote titled "Learning environment as a three-dimensional textbook" that "the building itself and the surrounding landscape are not a passive area, but can be an active learning tool for physics, geometry and learning." Children and parents learn to "read the environment" on many levels, interact with it and learn from it". The concept of ecology mentioned by Taylor is closely related to the "sustainability education" discussed in this study. One of the main arguments of the study is that ecological and environmental sustainability is largely related to architecture. can be provided; and this view can be conveyed to children through places (Taşcı, 2015).

According to UNESCO's "Education for a Sustainable Future" program, an ideal environmental education program requires the development of values and understanding of the subject rather than a passive transfer of knowledge. In this respect, "architecture" is very instructive in terms of the organization of the built environment and the relationship of the built environment with the natural environment. Treating the built and natural environments as a must-read book and using them as learning materials are ideal methods for sustainability education; Because it is a known fact that not every child can learn by reading books or listening to their teachers. Von Glaserfeld argues that knowledge is formed through active experiences. According to Glaserfeld, knowledge is related to the student's experiences and the environment in which the student creates this knowledge. In other words, acquiring knowledge and understanding is directly related to experience or life. In this respect, sustainable spaces are easy-to-reach concrete materials that are ideal for teaching many concepts to children. A children's place that meets sustainability criteria can make it easier to teach the child many useful things such as green environmental awareness, energy saving, and simple measures to ensure thermal Comfort (Taşcı, 2015).

- Sustainable children's spaces that will raise awareness in the context of sustainability must be shaped within the framework of certain criteria. These criteria can generally be listed as follows:
- Choosing the appropriate land (a land that will have the least negative impact on the ecosystem and is suitable for designing buildings in accordance with sustainable criteria, where users will be protected from external pollution sources, etc.),

- Preparation of a comprehensive transportation plan that pollutes the environment less (should start at the land selection stage),
- Minimizing the life cycle (construction, operation, maintenance-repair, demolition) costs of the building,
- Integrating passive systems (greenhouses, roof windows, heat-storing walls, solar chimneys, etc.) and active systems (solar collectors, photovoltaic systems, etc.) into the structure to reduce energy requirements,
- It has sustainable features such as rainwater collection, roof gardens, natural ventilation systems, sufficient daylight, construction with ecological and local materials, acoustic comfort, and good indoor air quality,
- Implementation of materials reuse and recovery policies during and after building construction (reducing and managing waste),
- The building is also an educational tool for sustainability awareness and is included in educational programs,
- Designing open spaces that enable the child's relationship with nature and offering different experience environments,
- Be accessible and safe for everyone,
- Ensuring that people in the immediate vicinity benefit from the building facilities (Tavşan & Yanılmaz, 2019).

In this context, the basic features that children's spaces should have in the sustainable development process are as follows:

Structural Features:

Transparency: Removing the thick walls that draw boundaries between nature and buildings.

Energy Efficient: Thanks to low energy systems, heating, cooling, etc. reducing energy consumption.

Ventilation: Improving the air quality in indoor environments through the use of natural ventilation systems.

Lighting: Use of adequate daylight.

Water Conservation: Storing rainwater and preventing water waste in the building.

Material Selection: Use of environmentally friendly materials.

Color and Texture Selection: Appropriate color and texture selection that supports the child's development and education.

Acoustic Comfort: Creating calm educational environments where optimum acoustic comfort is provided.

Functional Features:

Variability: Evaluating all environments designed with changeable-transformable planning that allow different user groups to do different activities in an area at the same time as an educational tool.

Equality: All children should benefit equally from the opportunities provided in educational environments, under the same conditions.

Sharing: Sharing the opportunities provided by designed educational environments with the society.

Belonging: Creating a sense of ownership of the educational environment in children thanks to simple-structured elements that can be adjusted according to need and allow use in different physical sizes.

Holistic Harmony: If the education system follows a certain philosophy that requires special design, providing integrity throughout the structure thanks to the architectural form shaped in accordance with that philosophy.

Freedom: Enabling the child to decide, choose and act freely with his/her free will.

Environmental Awareness: Thanks to the educational environments created in open and closed areas, the child can touch nature and develop environmental awareness.

Health: Planning of food and beverage, agriculture and sports areas that provide children with healthy living habits from an early age.

Cooperation: Cooperation and communication achieved as a result of moving educational environments to work areas belonging to different professional groups (Çınar & Yamaçlı, 2019).

Designing all children's spaces with a sustainable approach means creating sustainability awareness in children. For example, the water crisis is one of the issues that frequently comes to the fore and raises concerns about the future. Talking to children about the importance of water may not be enough for them to fully understand this issue. Learning that the buildings we live in collect rainwater when it rains and that this water can later be used for watering plants, cleaning the garden, etc. by living with the spaces and buildings they are in will increase sustainable awareness. In this context, considering children's spaces within the scope of sustainable design will play an active role in increasing sustainable awareness..

2. Material and Method

In this study, which reveals the methods for creating sustainability awareness in children, examples of sustainably designed children's spaces

and structures were identified and analyzed in the context of the following criteria determined within the scope of the sustainability criteria in theory. These criteria; The selection of the residential area was determined as follows: water conservation, energy and atmosphere, transportation, natural lighting, natural ventilation, building form, appropriate materials and construction system, space organization, building envelope and sustainability awareness.

Children's spaces, which were analyzed in the context of the determined sustainability criteria, were questioned about the approaches of sustainable practices applied at the building and space scale to create sustainability awareness in children.

3. Findings and Discussion

Within the scope of the study, 6 examples of sustainably designed children's spaces and structures were identified and analyzed in the context of the criteria determined within the scope of sustainability criteria. While determining the examples, attention was paid to ensure that they were specialized children's spaces for children with different functions such as education, health and culture. 2 of the analyzed samples are kindergarten samples from abroad and 1 is a kindergarten sample from home. Other examples include a children's hospital, a children's museum and a children's center.

3.1. Fuji Kindergarten - Japan

Completed in 2007, the kindergarten, which won the 2017 Moriyama RAIC International Award, hosts 600 children aged 2-6. Adopting the Montessori learning approach, the school adopts an educational approach that offers children the opportunity to move freely around learning

environments and learn through discovery. Architect Takaharu Tezuka designed this sustainably designed structure as a continuous space that allows children to learn and play without restriction (Tonguç, 2012).

The building is in a central location. The annex to the school, called "circulation around the tree", built between the building and the street next to Fuji Kindergarten, offers children a place to play while waiting for their shuttles after school. In addition, not only kindergarten students but all children can benefit from this structure (Figure 2) (Tonguç, 2012).

Figure 2. Fuji Kindergarten general view and site plan (Tonguç, 2012)

While designing the building, attention was paid to the preservation of the existing Zelkova trees in the surrounding area. The existing land was preserved and the design was made to suit flat land conditions. Daylight, prevailing wind, etc. are taken into account in the design. Climatic optimization has been achieved by taking into account the climatic characteristics. The preservation of trees on the land also protects the building from climatic factors. The structure is designed so that school officials can easily observe children. Adequate lighting is provided around the school. (Figure 3) (Tonguç, 2012).

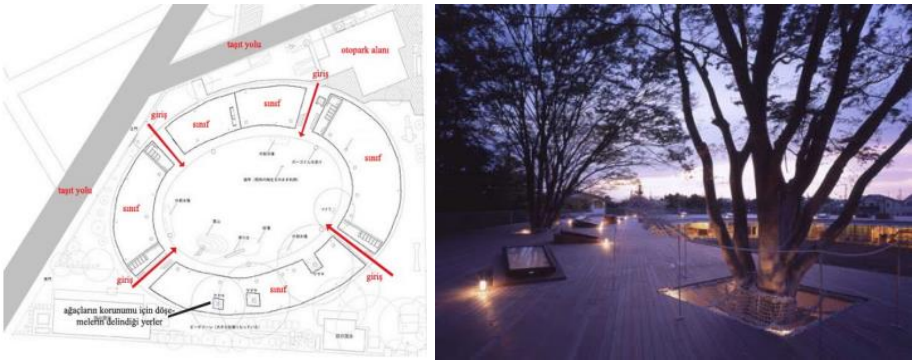

Figure 3. Fuji Kindergarten plan and roof (Tonguç, 2012)

The water required for landscape irrigation is provided by rainwater on the roof. By minimizing the use of covered surface areas in landscape design, the flow of rainwater to groundwater is ensured. Care was taken to select local plants that do not require much watering. Rainwater was collected and used in landscape irrigation with efficient irrigation methods. Thus, the use of clean water for irrigation purposes has been reduced.

Solar energy is utilized through the use of photovoltaic panels. The building was designed in the central area, close to residential areas. Transportation axes have been determined and transportation opportunities to the building by vehicle, on foot or by bicycle have been provided. Parking areas are designed close to the road, away from children's playgrounds. By providing alternative transportation opportunities, parking areas have been reduced to a minimum level; Appropriate parking arrangements have been made for bicycles and service vehicles. The use of heavy and solid arcade building elements around the building, which would prevent students' visibility and negatively affect their safety, was avoided. The use of public transportation is encouraged, and playgrounds

are arranged in areas where children will wait for the shuttles so that they can have a pleasant time (Tonguç, 2012).

In order to make the best use of natural lighting, plenty of glass, sliding and collapsible joinery was used on the facade of the building. Controllable natural ventilation is also provided with this approach. Skylights are designed to ensure that interior spaces benefit from sufficient natural light. The terrace also serves as an eaves and is used for shading purposes in the building. The building can make the most of natural lighting. Artificial lighting is intended to supplement natural lighting. The spaces are painted in light colours (Figure 4) (Tonguç, 2012).

Figure 4. General view from Fuji Kindergarten (Tonguç, 2012)

3.2. Agriculture Kindergarten – Vietnam

Historically an agricultural country, Vietnam has faced environmentally damaging changes as it transitioned to a production-based economy. Increasing drought, floods and salinization endanger food supplies, while large numbers of motorcycles cause daily traffic congestion and air pollution in cities. Rapid urbanization deprives Vietnamese children of green spaces and playgrounds, and therefore of their relationship with nature. Agriculture Kindergarten has a concept that counters these problems. Located next to a large shoe factory and designed for 500 children of factory employees, the building is a prototype of sustainable education spaces in tropical climates and is designed as a permanent green

roof, offering children the experience of food and agriculture as well as a large playground reaching into the sky (Figure 5) (Akaevren & Yavuz, 2023).

Figure 5. General view from the Agriculture Kindergarten (Url-2)

The green roof is shaped like a triple ring surrounding three courtyards inside as safe play areas. An experimental vegetable garden has recently been realized on its hill. Five different vegetables were planted in a 200 m² garden for agricultural education. All functions are hosted under this roof. As the roof descends towards the courtyard, it provides access to the upper floor and vegetable gardens, where children learn about the importance of agriculture and reconnect with nature (Figure 6) (Akaevren & Yavuz, 2023).

Figure 6. General view from the Agriculture Kindergarten (Url-2)

The building is made of a continuous narrow strip with windows that can be opened on two sides, maximizing cross ventilation and natural lighting. In addition, architectural and mechanical energy saving methods, including but not limited to, have been extensively implemented. A green roof was used for insulation, a green facade for shading and solar water heating. These devices are designed to be visible and play an important role in the sustainable education of children. Factory wastewater is recycled to water greens and flush toilets (Figure 7) (Akaevren & Yavuz, 2023).

Figure 7. General view from the Agriculture Kindergarten (Url-2)

As a result, the kindergarten operates without air conditioning in the classrooms, despite being located in a harsh tropical climate. According to post-occupancy records published 10 months after completion, the building saves 25% energy and 40% fresh water compared to baseline building performance, greatly reducing operating cost. The building was designed for the children of low-income factory workers, so the construction budget was quite limited. Therefore, a combination of local materials (brick, tiles) and low-tech construction methods are applied, which helps minimize environmental impact and support local industry (Figure 8) (Akaevren&Yavuz, 2023).

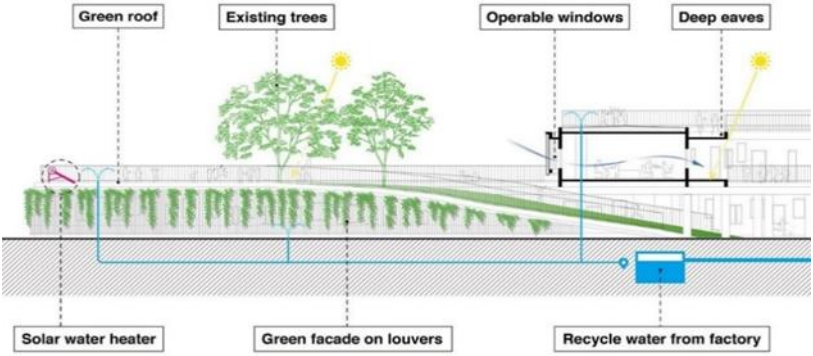

Figure 8. Agriculture Kindergarten sustainability approach (Url-2)

Architectural and mechanical energy saving methods are extensively applied, including but not limited to. Green roof, PC-concrete louver for shading, recycling materials, water recycling, solar water heating have been applied. These devices are visibly designed for children to play their important role in sustainable education. The building was designed to maximize natural ventilation through a computational fluid dynamics analysis. Double insulation was applied to the building to save energy. The building's water is heated by solar energy, and filtered water from the nearby factory is used to irrigate the garden and playgrounds. Large windows on both sides of the building not only bring daylight in, but also provide natural air flow, eliminating the need for a ventilation system (Akaevren & Yavuz, 2023).

3.3. Bahriye Üçok Kindergarten – Türkiye

Bahriye Üçok Kindergarten, which is Türkiye's first ecological home, was built with a completely environmentally friendly design, from its construction to its interior furnishing and basic infrastructure such as energy and water. 110 children between the ages of 3 and 6 receive service in the kindergarten, which has 5 classrooms with an average area of 25 -

30 m². The garden of Bahriye Üçok Ecological Kindergarten, consisting of a total of 1208 m² of closed and 1633 m² of open area, is also designed to suit the development of children (Figure 9).

Figure 9. General view from Bahriye Üçok Kindergarten (Kızılkan & Türkyılmaz, 2021)

The child explores and learns about his environment by playing games. While designing the building, the idea of "a house obtained with an origami game" was the starting point, based on the issues of "game" and "image", and the building shell was shaped accordingly. The forms and functional approaches created on the building facade and roof are essentially shaped within the framework of this idea. A friendly playhouse has been created for children, suitable for their own scale (Figure 10) (Kızılkan&Türkyılmaz, 2021).

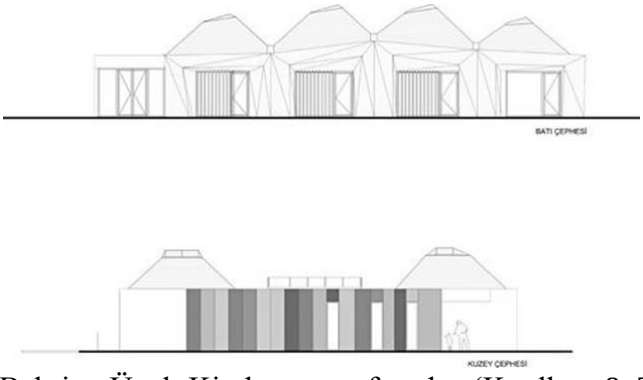

Figure 10. Bahriye Üçok Kindergarten facades (Kızılkan & Türkyılmaz, 2021)

The building consists of two floors. One floor of the building is located underground with an ecological approach. Heating consumption was reduced by placing areas that do not functionally need daylight and have low circulation needs in the basement. The areas remaining above ground have been greened as open playgrounds for children and as a source of oxygen for the ecosystem. The trees and vegetation around the building act as a barrier that reduces the sound level between the playground and the surrounding residences. In addition, apart from the positive effect of green on human psychology, the green environment also allows various types of natural life to live (Figure 11) (Kızılkan & Türkyılmaz, 2021).

Figure 11. General view from Bahriye Üçok Kindergarten (Kızılkan & Türkyılmaz, 2021)

The school meets the criterion of designing a minimum of 50% of the land as green space, which is required to meet the LEED criteria for the protection and development of natural life. The building's light color facade paint, green roof and green land reduce the heat island effect, unlike the high-rise buildings and asphalt roads in the surrounding area. In order

to reduce light pollution, lighting in buildings and land should be minimized and the damage to the environment caused by lighting at night should be reduced. The exterior of the school is not illuminated. Functional lighting poles are used outdoors only to ensure safety and visual comfort (Figure 12).

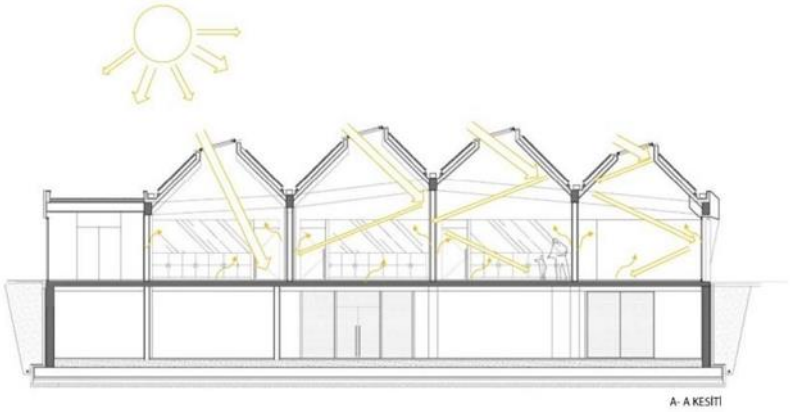

Figure 12. Bahriye Üçok Kindergarten sectional drawing (Kızılkan & Türkyılmaz, 2021)

It is possible to benefit from solar energy in a building thanks to passive and active solar systems. The investment cost of passive solar systems is lower than active systems. It is also possible to reduce heating costs by using these systems correctly in buildings. While some of the sunlight received into the building is used immediately, some of it is emitted by radiation or transport from the floor and walls (Kızılkan &Türkyılmaz, 2021).

Unlike active solar systems and passive solar systems, solar energy is obtained through technical equipment. This obtained and stored energy is used to meet the heating, hot water and electricity needs of the building. An example of active energy use at Bahriye Üçok Kindergarten is the

application of photovoltaic solar panels. Photovoltaic solar panels, placed towards the south facade to receive maximum sunlight, are used to meet the electricity needs of the building by converting sunlight into electrical energy (Kızılkan & Türkyılmaz, 2021).

Purifying rainwater through green building principles, especially with the application of green roofs, reducing the load of the sewage system by using rainwater, making efficient use of solar energy and natural light, reducing the reflections that create the greenhouse effect by not reflecting the sun's rays, reducing energy consumption with the correct light direction and insulation values. savings, oxygen production with green roof layers, heating-cooling costs and carbon dioxide emissions are reduced with insulation systems (Figure 13) (Kızılkan & Türkyılmaz, 2021).

Figure 13. General view from Bahriye Üçok Kindergarten (Kızılkan & Türkyılmaz, 2021)

Movable sunshades were added to the façade in order to reduce the sunlight reaching the learning spaces located on the south and west facades of the land. Such smart building technologies provide advantages in terms of both cost and comfort. In addition, the building form on the west façade

was shaped to break sunlight. In this way, sunlight, which varies according to climatic characteristics, is allowed to be received into the space in a controlled manner. Its softness, like that of the northern light, was targeted. We created a section that will be used as a winter garden on the side facing the south facade, and an island wall that can be heated on the lower floor. There are precast surfaces on the facade. Although the form of these precasts appears to be a free form, each angle was designed as a sunshade to eliminate the negative effects of the sun coming from the south side. It is also supported by photovoltic panels to generate electrical energy (Figure 14-15) (Kızılkan & Türkyılmaz, 2021).

Figure 14. General view from Bahriye Üçok Kindergarten (Kızılkan & Türkyılmaz, 2021)

In a building, large amounts of water are used as a result of activities such as cooking, washing, cleaning or irrigation used in wet areas. Reusing water from depleting sources after use and systems that reduce existing water use are important elements in sustainable building design. Using rainwater in or around the building, controlling the amount of water used in the building, and ensuring that gray water is purified and used are approaches that reduce water consumption. In the kindergarten, rainwater is stored and used for garden irrigation and toilet bowls in wet areas.

Additionally, water consumption can be reduced with sensor taps or gradual flush systems used in wet areas (Kızılkan & Türkyılmaz, 2021).

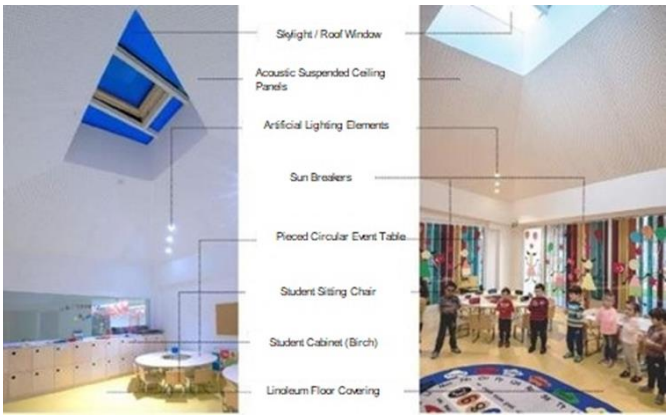

Figure 15. Bahriye Üçok Kindergarten sustainability approach (Kızılkan & Türkyılmaz, 2021)

When the entire kindergarten is examined in terms of material and furniture selections, it is observed that both children's health and sustainability criteria are taken into consideration. Wood is used extensively throughout the space, such as furniture, door and window joinery, and stair covering. Wood is a natural material that does not require much energy during processing, its waste does not harm the environment and can even be reused. Pastel colored tones were preferred as much as possible in the building designed as a kindergarten structure. Light-colored birch wood furniture, off-white aluminum joinery, white acoustic panels and wall paint, mustard yellow/green tones non-toxic linoleum flooring material, wooden covering on the stairs and non-slip matte ceramic tiles in wet areas were preferred. Mainly rainbow colors were used in outdoor equipment and white composite material was used in the building exterior cladding (Kızılkan&Türkyılmaz, 2021).

3.4. Brooklyn Children's Museum– USA

Seeking expanded capacity to serve a growing audience of children and families, the Brooklyn Children's Museum wanted a new public presence that would contribute to the vitality of the surrounding community. Rafael Viñoly Architects responded by creating a structure that differs from its context, in color as well as physical form, yet remains welcoming and deferential to the museum's existing built environment (Figure 16) (Brooklyn Children's Museum, n.d.).

Figure 16. General view from the Brooklyn Children's Museum (Url-3)

The Brooklyn Children's Museum is New York City's first LEED certified museum and the first to tap geothermal wells for heating and cooling purposes (Figure 17) (Brooklyn Children's Museum, n.d.).

Figure 17. General view from the Brooklyn Children's Museum (Url-3)

The Museum is covered in 8 million yellow tiles that reflect the heat of the sun to keep the Museum cool in the summer. Brooklyn Children's Museum has lots of large windows to let light in so the Museum doesn't have to turn on all the lights on a sunny day. But light brings heat, so the windows were designed with tile overhangs to prevent direct sunlight from letting too much heat inside.

The Museum uses low-flow faucets and toilets. Low-flow faucets add air to the water as it flows so you get a steady stream without using so much water. The men's restrooms actually have waterless urines; no water is used to flush these. The Museum's system automatically adjusts to accommodate the number of visitors in each space at any given time. When visitors are in the Museum, the fewer ventilation system will slow down, reducing energy costs (Figure 18) (Brooklyn Children's Museum, n.d.).

Figure 18. General view from the Brooklyn Children's Museum (Url-3)

When people enter the Museum's offices, classrooms, and restrooms, motion sensors turn the lights on. When they leave, the lights turn off automatically. The Museum also uses super efficient, cool-burning low-energy light bulbs. Daylight sensors regulate the amount of artificial lighting needed at any given time. Photoelectric cells dim indoor lights

when there is an abundance of natural light and brighten the electric lighting at night or in cloudy weather.

The Museum features an innovative geothermal system that draws stable-temperature water from Brooklyn′s underground aquifers to a series of air handlers that control the temperature of the building. The water stays about 14C year-round, so it's cooler than the air in summer and warmer than the air in winter. When the water enters the building, it reduces the need for air-conditioning in the summer and heating in the winter (Figure 19) (Brooklyn Children's Museum, n.d.).

Figure 19. General view from the Brooklyn Children's Museum (Url-3)

Photovoltaic (PV) systems convert solar energy into electrical power. The solar energy captured through PV panels reduces the cost of supplying electrical energy to the building. Renewable and Whenever possible, the Museum uses materials that are renewable or recycled. The stairs and upstairs floorboards are made of bamboo, a resource that's renewable because of how quickly bamboo grows.

The boards in the beach boardwalk aren't wood; they're recycled plastic bottles. The collections cases in the Global Beats Exhibit are made from sunflower seed hull. The soil in the Community Garden isn't real soil – the pieces are cut from recycled corkboards. The bark on the trees in

Neighborhood Nature is made from recycled tires. The roof tiles on the Pizza Shop are made from reclaimed wood and recycled vinyl (Brooklyn Children's Museum, n.d.).

3.5. Arena Children's Center – Australia

Designed by CohenLeigh Architects, Arena Children's Center is located in the growing suburb of Officer in South East Melbourne. This hugely popular early learning center successfully meets the demand for modern early learning spaces in the growing community while being a colorful and memorable piece of urban architecture (Figure 20) (Arena Children's Centre, n.d.).

Figure 20. General view from the Arena Children's Center (Url-4)

Spending time away from home can be daunting for children, especially for the first time. The design focuses on the concept of 'home' to help children feel comfortable. A fun, lively and memorable series of "house"

shapes becomes a theme that extends into the interiors (Figure 21) (Arena Children's Centre, n.d.).

Figure 21. General view from the Arena Children's Center (Url-4)

Arena Children's Centre's brick façade with tinted glass is inspired by the simple, familiar shapes of houses often drawn by children. It also refers to the housing patterns of growing suburbs. The design of the interior spaces centers around a sensory and physical progression through the educational progression of the early learning centre, using color themes and brick interaction as tactile elements that help guide children (Figure 22) (Arena Children's Centre, n.d.).

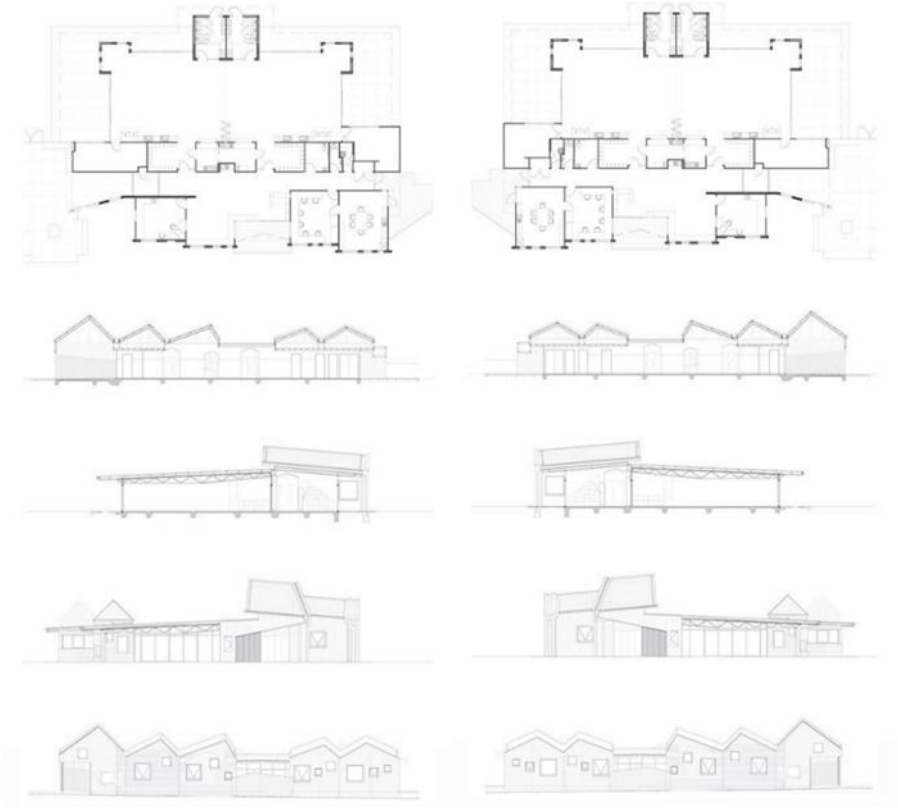

Figure 22. Arena Children's Center project drawings (Url-4)

Facilities include two licensed playrooms, mother-child and healthcare facilities, a kitchen, staff areas and amenities. The orientation and placement of internal playrooms ensures each room has a strong connection to outdoor spaces for flexible indoor/outdoor activities, taking advantage of natural light, fresh air and engagement with the landscape, while a large outdoor play area offers challenging play options that cater to children's needs (Figure 23) (Arena Children’s Centre, n.d.).

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Figure 23. General view from the Arena Children's Center (Url-4)

Environmentally sustainable design is a key driver in the quest to create a comfortable learning environment. Orientation, natural ventilation, deep eaves and shading control all contribute to keeping artificial heating/cooling to a minimum and providing fresh air. Combined with rooftop solar power, water harvesting, low-VOC paints, energy-efficient lighting and timed water fixtures, the buildings' environmental performance is exemplary for society (https://www.arch2o.com/arena-childrens-centre-cohenleigh-architects/, 2024).

3.6. Hong Kong Children's Hospital – Hong Kong

Hong Kong Children's Hospital was built in 2017 in Hong Kong by Billard Leece Partnership, Simon Kwan and Associates Architectural Firms. The hospital building is located in Kowloon Bay and has an uninterrupted sea view with its long façade. There is no emergency room or general outpatient clinic in the hospital. The overall design goal of the hospital is to create a home-like, comfortable, child-friendly environment that can

provide the best patient-centered clinical practices to meet the needs of patients and families. The hospital structure, which has 11 floors, consists of two buildings: "Teaching and Research Building" (Block A) and "Clinical Services Building" (Block B). The two blocks are connected to each other from the 2nd, 3rd and 9th floors by three bridges. Block A is mainly used for education, scientific research and operating rooms, and block B is used for various wards and outpatient departments. In addition to the indoor parking lot at the hospital, there are 2 bus stops near the hospital. The passenger drop-off area opens onto a large green area with a direct view of the port, providing a sense of comfort for users. A continuous pedestrian walkway is provided to connect all main entrances and the functional area (Figure 24) (Dabbagh, 2023).

Figure 24. General view from Hong Kong Children's Hospital (Dabbagh, 2023)

The hospital lobby is covered with floor-to-ceiling glass, providing natural lighting and sea views. It also opens directly to the garden overlooking the harbour. The building has a clear and well-directed circulation model with simple and effective planning. Natural light and view are provided in the patient rooms through large glass windows (Figure 25) (Dabbagh, 2023).

Figure 25. General view from Hong Kong Children's Hospital (Dabbagh, 2023)

Animal graphics that attract the child's attention were used in different parts of the hospital, such as examination rooms, elevators, x-ray and MRI rooms. Attractive waiting areas with playgrounds are found on the clinic floors to create a comfortable and fun environment for children. Colorful seating areas suitable for all age groups are provided in the waiting areas (Figure 26) (Dabbagh, 2023).

Figure 26. General view from Hong Kong Children's Hospital Dabbagh, 2023)

Many landscaping arrangements have been made on the ground floor, terraces and roofs in order to reduce the heat effect in the building and improve the air quality in the surrounding area. The hospital's central rehabilitation garden connects to the adjacent coastline, improving public connectivity and the provision of shared spaces. In the rehabilitation garden, there are animal topiary frames (animal-shaped vegetal sculpture)

such as monkeys, rabbits and flamingos, as well as different play and seating areas. Vertical greening in garden areas has a therapeutic effect, helping to reduce stress, evoke sympathy and balance emotions. Internal courtyards were created in the hospital to maximize daylight utilization, natural ventilation and connection with the external environment (Figure 27) (Dabbagh, 2023).

Figure 27. General view from Hong Kong Children's Hospital (Dabbagh, 2023)

The concept of sustainability is widely featured in hospital architectural design. It contains a series of environmental protection and energy-saving devices and improves environmental greening. The building form was designed as twin towers to improve the permeability of the building and pedestrian circulation. To ensure thermal and visual comfort, shading elements on the southwestern façade, efficient sanitary fixtures to increase water efficiency and reduce water consumption, rainwater recycling systems to reduce irrigation water consumption, regional cooling system, photovoltaic panels, high quality lighting systems and environmentally friendly materials were used (Figure 28) (Dabbagh, 2023).

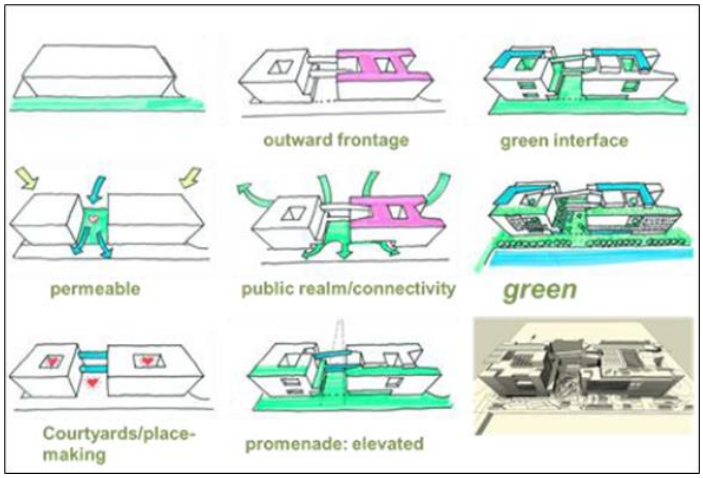

Figure 28. Hong Kong Children's Hospital sustainability approach (Dabbagh, 2023)

4. Conclusion and Suggestions

Although sustainability is a broad and comprehensive word, we need to adopt behavioral practices that will minimize the damage we cause to the world. Therefore, sustainability appears as a set of good and sensitive actions. While involving children in this process, we need to bridge the gap between the abstract idea of sustainability and the real-world effects of actions.

While building this bridge, it is important that the spaces where children live are designed in accordance with sustainability criteria and that children's awareness of sustainable structures and environments is raised through these spaces. When examples of sustainable children's spaces with different functions were analyzed, it was determined that all examples mastered the basic sustainable design criteria (Table 1).

Table 1. Analysis of examples of sustainable children's spaces (Anıktar, 2024)

Sustainability Criteria	Fuji Kinder-garten	Agriculture Kinder-garten	Bahriye Üçok Kinder-garten	Brooklyn Children's Museum	Arena Children's Center	Hong Kong Children's Hospital
Selecting the Residential Area	X	X	X	X	X	X
Water Conservation	X	X	X	X	X	X
Energy and Atmosphere	X	X	X	X	X	X
Transport	X	X	X	X	X	X
Natural Lighting	X	X	X	X	X	X
Natural Ventilation	X	X	X	X	X	X
Building Form	X	X	X	X	X	X
Appropriate Material and Construction System	X	X	X	X	X	X
Space Organization	X	X	X	X	X	X
Building Shell	X	X	X	X	X	X
Providing Sustainability Awareness	X	X	X	X	X	X

According to Table 1, not all sustainable children's space examples meet only sustainable design criteria. In addition, all sustainable practices implemented at the building and space scale are planned clearly enough to be noticed by children. Sustainability-themed curricula and activity arrangements should be made in order to strengthen awareness, especially in educational buildings and learning environments. Again, in order to strengthen awareness, the theme of sustainability should be addressed and game designs should be made in the context of the concept of games, which play the most active role in learning. Based on the awareness that

every place children are in is also a learning environment, awareness can be created by transferring many concepts that affect future generations, such as the concept of sustainability, to children through places.

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Author Contribution and Conflict of Interest Declaration Information

The article was written by a single author. There are no conflicts of interest.

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Brief History of AI in Architectural Design and Future Directions

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1. Introduction

Technological advancements have accelerated, particularly with the advent of the digital revolution. In recent years, parallel to these advancements, rapid breakthroughs in artificial intelligence (AI) tools have led to the interdisciplinary expansion and increased effectiveness of AI. Over the last decade, the rise in computing power and the proliferation of data have heightened interest in AI methodologies. Deep learning techniques, inspired by the structure of neural networks in the brain, have found a significant place in the world of computing. These techniques have been utilized in software applications outside of architecture for some time. Consequently, the use of AI in architectural design has also become widespread. With the integration of AI into architectural design, new possibilities for designing and producing architecture have emerged. Some design software now enables the use of machine learning algorithms, while data accumulated throughout professional careers in areas such as environmental sustainability and building performance are being analyzed by architects using deep learning methods. Although these techniques are still in the development phase, they offer great promises.

Technological advancements not only develop new design tools but also transform the parameters, actors, and focuses of architectural design action. Architectural practice, due to its multidisciplinary, social, economic, and cultural dimensions, has undergone several paradigm shifts driven by factors such as international economic crises, global warming, and new scientific approaches. Although these changes bring various concerns regarding creativity, the role of the architect, and ethical

principles, they also encourage architecture to explore new horizons and seek new responses to the rediscovery of uncertainty.

AI's capacity to process large amounts of data and generate innovative solutions is transforming traditional design practices, making creativity, sustainability, cost, user experience, design time, automation, and efficiency decisive factors in architectural design.

As these transformations unfold, topics such as the role of the architect and the necessity for architects to adapt to new technologies come to the forefront of discussions. The new situation, which differs from known design methods, raises concerns about creativity, intuitive design, and the direction of the architectural profession. All these developments open up areas that need to be considered regarding the inherently implicit process of architectural design and necessitate a forward-looking perspective on architectural design in the age of AI.

2. Material and Method

This study aims to anticipate and open a discussion on the innovations that will face architects in the future by examining these changes today. To provide a forward-looking perspective, the focus of this work is to analyze artificial intelligence (AI) both technically and historically, explore its intersections with architecture, and make deductions based on these insights. With this research, it may be possible to create a resource for future research by addressing the currently complex and very scattered subject of architectural design and AI with a summarising approach. At this point, it is important to examine the historical development of AI and to explain AI in technical terms before making future directions.

The purpose of this study is to discuss the potential changes that AI could bring to architectural design and how this technology might shape architectural practice in the future. A comprehensive evaluation will be presented on the use of AI in architecture and its possible impacts, drawing on both historical and contemporary examples.

The foundational materials for this research are academic sources that focus on AI, machine learning, and architecture. These sources provide a basis for understanding the historical context of technological advancements and evaluating current practices. Additionally, various software and digital tools that incorporate AI and machine learning techniques have been examined to understand their application in architectural design processes.

The method involves a comprehensive literature review of the existing research in the fields of AI and architecture to establish the theoretical framework of the study. This review includes the history of technology, conceptual definitions, and various application examples. Through a chronological reading and analysis of all the studies, it will be possible to create a speculative perspective for the future.

3. Findings and Discussion

Given the multifaceted nature of AI today, its conceptual definitions are quite diverse. Currently, AI spans multiple sub-disciplines such as machine learning, deep learning, natural language processing, and robotics. In this sense, understanding AI requires not only a conceptual inquiry but also a technical examination.

This study focuses on the history of artificial intelligence and its use in architecture. Analysing the concept and history of AI will help us

understand how this technology has evolved and with which important breakpoints it has reached its current position. The development process from the first systems of artificial intelligence to today's widely used deep learning and machine learning techniques will be discussed both theoretically and practically. Then, the role of artificial intelligence in architectural design and its potential in this field will be analysed. AI can help architects optimise their design processes, explore new forms and even achieve quick results in areas such as sustainability.

3.1. Concept and History of Artificial Intelligence

The term "Artificial Intelligence" (AI) was first introduced by McCarthy in 1956, who believed that computers could perform tasks requiring human intelligence (Bernstein, 2022, p.14). According to Nilsson, AI is dedicated to endowing machines with intelligence (Nilsson, 2019), whereas Nabiyev (2016) defines it as the ability of a computer or computer-controlled machine to perform human mental processes such as understanding, reasoning, generalizing, and learning from experience. Similarly, AI is also described as intelligent computer systems created by humans that possess autonomous perception, cognition, decision-making, learning, and execution capabilities, to some extent mimicking human problem-solving abilities.

In an alternative approach, Leach (2022) defines AI research as an attempt to understand intelligence itself, with AI systems aiming to mimic or resemble human cognitive intelligence. Given the rapid pace of development, AI is expected to soon take over tasks and activities that are currently considered to require human intelligence, and in the long term, AI is likely to surpass human cognitive abilities.

Today, relatively limited AI known as "*narrow AI*" is still in use, which only simulates or mimics human intelligence. This is also known as "*weak AI*" – distinct from conscious AI, referred to as "*strong AI*" or *Artificial General İntelligence* (AGI) (Leach, 2018). While AGI has not yet been achieved, AI has made significant progress through its subfields of "machine learning" and "deep learning." Machine learning, a subset of AI, allows computers to learn and even self-program; deep learning, a relatively recent development within machine learning, has led to numerous significant advancements in the field of AI (Leach, 2022).

Tracing back to the origins of AI, we encounter Turing's 1936 paper, published in 1937, titled "On Computable Numbers, with an Application to the Entscheidungsproblem." This paper laid the conceptual foundation for computation as we know it today and introduced what he initially called an "a-machine" or "automatic machine," which later became known as the Turing Machine. Turing laid the conceptual groundwork for computation and defined the "automatic machine," which became known as the Turing Machine. During World War II, Turing's "Bombe" device played a crucial role in deciphering the German Enigma code. Post-war, Turing worked on the Automatic Computing Engine (ACE) at the National Physical Laboratory and developed software for the Manchester Mark 1. Turing was also interested in biological morphogenesis, developing the "reaction-diffusion" theory and being one of the first to recognize the link between artificial intelligence and artificial life. In a 1950 paper, he discussed the possibility of machines thinking and defined the test known as the "Turing Test" (Leach, 2022).

Regarding the relationship between AI research and architecture, Chaillou (2022) highlights a gap in this area, examining the intersection of AI and architecture from historical, experimental, and theoretical perspectives. According to Chaillou, to correctly understand the relationship between AI and architecture, it is essential to examine the historical development of AI (Figure 1). While making this examination, he especially includes the following historical breaks; The Post-War Period (1950s), First AI Winter (1970s), Expert Systems (1980s), Second AI Winter (1990s) and Deep Learning Revolution (2010s).

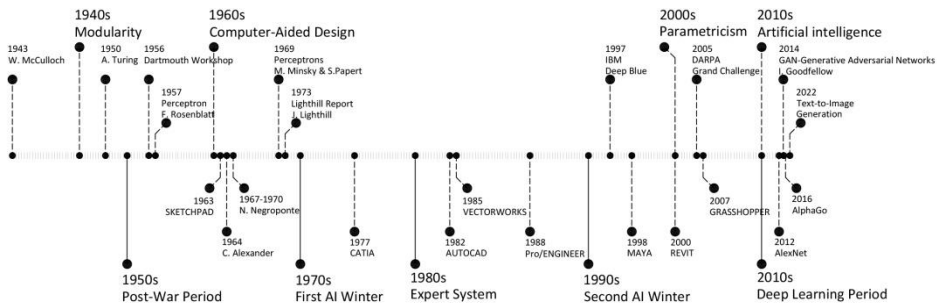

Figure 1. Timeline of digital developments in architecture (Gajjar, 2023; Chaillou, 2022).

The Post-War Period

The 1940s are considered a convergence point for several significant discoveries that laid the groundwork for the modern definition of artificial intelligence (AI). In 1943, mathematician Walter Pitts and neurologist Warren McCulloch designed an early computer inspired by the human brain, using neural networks. This design combined the binary logic of Turing's computer, the true/false structure of propositional logic proposed by philosopher Bertrand Russell, and the on/off nature of neural

synapses observed by neurophysiologist Charles Sherrington (Leach, 2022).

In 1947, John Bardeen, Walter Brattain, and William Shockley at Bell Labs developed the transistor, a new semiconductor device. This new generation of hardware allowed McCulloch and Pitts's theoretical models to be realized as functional prototypes.

By the 1950s, two overlapping branches of computer modeling had emerged: one focused on adaptive behavior, and the other on logical reasoning. These branches later evolved into two distinct fields: cybernetics and symbolic computation.

In 1957, American psychologist Frank Rosenblatt developed a learning machine prototype called the Perceptron. The Perceptron was designed to classify images and could adjust its own settings. That same year, the New York Times reported on this experiment as "*New Navy Device [that] Learns By Doing"*. In 1956, researchers gathered at the Dartmouth Summer Research Project to establish the initial definition of AI and set a roadmap for future developments (Chaillou, 2022). During this period, applications such as natural language processing (NLP), a branch of AI focused on understanding and interpreting human-created natural language, also began to be developed.

The Dartmouth Summer Research Project held in 1956 was a pivotal event that solidified this distinction and defined the term "artificial intelligence." Proposed by John McCarthy, Marvin Minsky, Nathanial Rochester, and Claude Shannon, this event was attended by many individuals who would later become prominent figures in the field of AI. The workshop's goal was to explore the hypothesis that any feature of

learning or intelligence could be so precisely described that a machine could be made to simulate it. This event led to the definition of the AI field and the adoption of the term "artificial intelligence," although McCarthy himself was not entirely comfortable with the term. Despite intense research during this period, expectations were later deemed unrealistic, leading to a reduction in research funding and resulting in the first "AI winter," a period of reduced interest and activity in AI research (Leach, 2022).

AI Winters

Throughout the 1960s and 1970s, the AI field experienced two significant periods of stagnation, known as AI winters. The first of these was triggered by critical publications such as Marvin Minsky and Seymour Papert's 1969 book "Perceptrons" and James Lighthill's 1973 Lighthill Report. During this period, both public and private sector investments in AI research waned, resulting in a loss of confidence. In the 1980s, the emergence of expert systems led to a revival in the AI field. Expert systems were models capable of making inferences based on specific rules and knowledge bases. One notable example was the MYCIN project developed at Stanford University, which had a knowledge base of 600 rules to identify bacteria causing infections. Another example was John P. McDermott's R1 (XCON) program, which helped the DEC company automatically order computer components based on customer requirements.

However, by the late 1980s, expert systems began to hit certain limitations, marking the onset of a second AI winter. John McCarthy's paper *"Some Expert Systems Need Common Sense"* highlighted

challenges such as the inability of expert systems to recognize their limitations. In light of these issues, Jacob T. Schwarz, director of DARPA's Information Science and Technology Office (ISTO), significantly reduced funding for AI research. According to Chaillou (2022), this general skepticism and lack of investment led AI research into a decade-long period of stagnation.

The Deep Learning Period

Recent advancements in artificial intelligence (AI) and deep learning, a subset of machine learning, have been accelerated by increases in computing power and the proliferation of data. Machine learning and deep learning techniques, inspired by the topology of neural networks in the human brain, acquire knowledge through trial and error. These techniques achieved significant success in various fields during the 1990s and 2000s. For instance, in 1997, IBM's AI computer Deep Blue defeated chess champion Garry Kasparov, and in 2005, Stanford University's autonomous vehicle Stanley won the DARPA Grand Challenge. These developments reignited interest in AI research, bolstered by the rapid development of the internet, improved data collection and organization, and the use of GPUs to significantly speed up AI model training times.

The term "deep learning" emerged in the early 2010s, reflecting the increased complexity of artificial neural networks, enabling AI models to tackle more challenging problems. Several key events accelerated this revolution. The ImageNet project, initiated at Stanford University in 2009, hosted annual competitions to test the accuracy of deep learning models, and in 2012, a model named AlexNet achieved remarkable success in this competition (Chaillou, 2022). In 2016, DeepMind's

AlphaGo defeated world Go champion Lee Sedol, further showcasing the capabilities of deep learning.

Deep learning has achieved great success in areas such as visual recognition, natural language processing and game strategies, especially when supported by large datasets and powerful processors. In this process of increasing the potential of deep learning, the field of deep learning has expanded with many new breakthroughs and applications. The diversity and complexity of AI models have increased, and their analysis and production capabilities have improved, from simple numbers and images to films, sounds, texts and 3D geometries. These developments show that artificial intelligence has evolved from being just a theoretical concept to practical applications and has brought revolutionary innovations in various industries. Following this evolution in the historical process, it is important to examine the functioning and development of machine learning, which accelerates the intersection of artificial intelligence with architecture.

3.2. The Development of Machine Learning

Machine learning, considered a subset of artificial intelligence (AI), refers to a computer system that learns from performing specific tasks and improves its performance in similar tasks in the future. While machine learning enhances computer performance by learning from experiences, deep learning makes this learning process more complex and multi-layered by using artificial neural networks. Similar to the human brain, deep learning collects past data and uses it to generate new outputs.

Machine learning is generally divided into three main categories based on the training methods used: *supervised*, *unsupervised*, and *reinforcement* learning (Gajjar, 2023). Supervised learning requires a corresponding output for each input example and develops a mapping from input to output (Goodfellow & Bengio & Courville, 2016, p.139). Simply put, a dataset is fed to the machine for it to learn how to recognize it in the future. Unsupervised learning, on the other hand, does not require labeled training data for making predictions and works with clustering principles (Gajjar, 2023). A notable type of unsupervised learning system in recent years is *Generative Models*, which produce outputs by drawing from unlabeled sources (Goodfellow et al., 2016, p.139). Generative Models are further divided into *Generative Adversarial Networks* (GANs) and *Diffusion Models* (Figure 2).

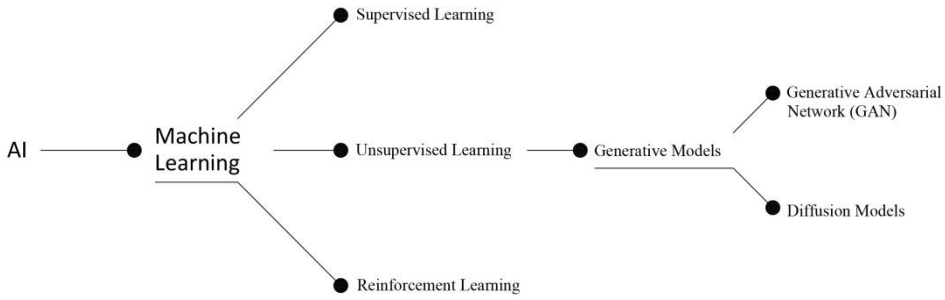

Figure 2. Subcategories of Machine Learning

In 2014, Ian Goodfellow introduced Generative Adversarial Networks (GANs), revolutionizing unsupervised learning systems. GANs do not require labeled input data but work with two main components: a generator and a discriminator. The generator network creates new data samples, while the discriminator network predicts the difference between real and fake data samples. According to Goodfellow et al. (2014), the

main reason for the success of GANs in today's competitive computing world is their ability to generate high-dimensional images independently of previous models.

The concept of GANs was first introduced in 2014, and that same year, researchers at the European Conference on Computer Vision developed a system capable of describing an image through text, marking the beginning of text-to-image generation. In 2016, researchers at the University of Michigan developed a GAN-based AI system that could translate textual descriptions into image pixels. That year also saw the release of *alignDRAW*, the first creative text-to-image generation model focusing on creative titles (Gajjar, 2023).

Watanabe notes that architects are often unaware of how they reach their judgments and decisions (as cited in Leach, 2022, p.108). Therefore, the opportunity presented by computational work is to externalize the design process and make it more objective. In this sense, the advantage of AI techniques is to make design more scientific, transforming the design process into a scientific action and making it explainable. However, since it is not possible to understand why GANs perform certain processes, they are not suitable for this purpose. According to Watanabe, both GANs and human intuition are black boxes (as cited in Leach, 2022).

In 2018, *Attentional Generative Adversarial Network* (AttnGAN) was introduced as a model that considers each word in a textual command rather than treating a sentence as a whole. In 2021, *OpenAI* released *DALLE*, the first widely available software, which created a model with 12 billion parameters using 250 million image-text pairs and provided a high-quality, flexible image generation model. Following DALLE,

several similar tools were released, such as *DALLE-2* and *Stable Diffusion*. However, these models are based on Diffusion Models rather than GANs. Diffusion Models are unsupervised machine learning methods that use non-equilibrium thermodynamics. Essentially, a diffusion process transforms a simple and well-known distribution (e.g., Gaussian) into a target distribution (data), converting noisy images into higher-resolution outputs (Gajjar, 2023). An analysis by *OpenAI* in 2021 showed that Diffusion Models perform better than Generative Models in terms of image sampling quality. With the variety demonstrated in recent years, AI's entry into architectural design and application has also accelerated. Applications that quickly generate images through short text prompts, known as "prompts," have particularly caught the attention of architects and designers. The simplicity of using these models and their various and easily accessible applications have led to their faster adoption in architectural design compared to tools such as plan automation, form formation, and shape grammar.

3.3. Architecture and AI

The relationship between architecture and digital technology is in constant flux. The use of AI in architecture was first envisioned by a few theorists. Nicholas Negroponte introduced the concept of interacting with "intelligent" machines in the 1970s, demonstrating how AI could be integrated into architectural software and its potential role in the design process through his work with the *Architecture Machine Group* (AMG) at *MIT Media Lab*. The works of Cedric Price and Nicholas Negroponte have shaped architectural discussions about AI (Chaillou, 2022). Previously limited to isolated research projects, AI has been

reinvigorated in architectural discussions due to its increasing accessibility and affordability. In the past decade, there has been a sharp increase in the prevalence of AI in architecture.

Chaillou (2022) describes AI (2010s) as a potential fourth stage in the evolution of technological developments affecting architecture, following *Modularity* (1940s), *Computer-Aided Design* (1960s), and *Parametricism* (2000s). Modularity aims to simplify the construction process and reduce costs in architectural design. Developed by Walter Gropius at the Bauhaus, this approach involves the assembly of standard modules according to specific rules. Interest in modular production declined in the 20th century but promoted systematic thinking. Computer-Aided Design (CAD) emerged in the 1980s with advancements in computer technology, leading to the development of CAD software for architectural design. The foundations of CAD were laid in engineering firms in the 1950s. Patrick Hanratty developed the first CAD prototype, *PRONTO*, in 1959. In 1963, Ivan Sutherland created *SketchPad*, the first accessible CAD program at MIT. Subsequently, the SketchPad application offered designers the ability to draw technical elements with precision.

I and II. The Digital Turn

Mario Carpo (2017) describes the past 30 years, during which digital technology has become widespread and almost everything has been digitalized, as the "*first digital turn*" in architecture. Historically, modern classicism long hindered innovations in building technologies. During the 19th century Industrial Revolution, while society, the world, and methods of construction were changing, architects used new industrial materials to

mimic the forms and styles of classical antiquity. By the 20th century, architects had not been as successful in using technology as other industries because building construction could not be mass-produced like cars or other machines. However, with the development of digital technologies in the 1990s, architects quickly embraced this change and began using digital tools. Digital design and production could be used to produce variations rather than mimicking mechanical mass production. According to Carpo (2017), digital mass customization is one of the most significant innovations in design professions, changing how we design, produce, and consume.

With the first digital turn in the 1990s, pioneers of digital tools in projects focused on the design and mass production of non-standard objects. Although CAD and CAM tools did not originate from architectural culture, the idea of using these tools according to the logic of new variations and mass digital customization was born in architecture. Architects argued that digital production tools should embrace a digital paradigm rather than a mechanical one, making it possible to produce different objects without significant changes in costs. This new personalization opportunity brought about the rise of Web 2.0 and the possibility for users to create and share personal content over the internet (Gallo, 2021).

The 1990s saw the emergence of a new style in architecture characterized by smooth and curvilinear lines. A new architectural style based on smooth and curved lines and surfaces was developed. Under the heading of Parametricism, the blob style, also known as spline or digital editing style, marked the first digital era in the 1990s (Carpo, 2017). Early digital

architecture examples emerged, especially through the works of architects such as Frank Gehry and Peter Eisenman, associated with the deconstructivist movement. The beginning of digital transformation was fueled by the confidence and excitement generated by digital transformation in society and markets. Early examples of digital architecture, such as Gehry's *Peix d'Or* (El Peix) in Barcelona in 1992 (Figure 3 and 4), used mathematical methods like splines (Gallo, 2021).

Figure 3. *Peix d'Or* (El Peix) (URL-1).

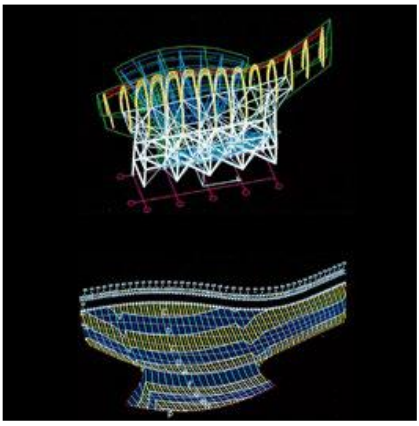

Figure 4. Renderings of digital model created with CATIA (Gallo, 2021).

Parametric architecture refers to the use of parametric modeling and visual programming tools in the design process. Early works in this field

include Ivan Sutherland's SketchPad and Samuel Geisberg's *Pro/ENGINEER* software. Patrik Schumacher defined parametric modeling both as a design technique and as an architectural style, naming it "Parametricism." Zaha Hadid's projects are examples of this style. However, parametric modeling has limitations in expressing certain architectural and cultural elements (Chaillou, 2022). Despite the contributions of significant researchers and academics, Parametricism has not become a global style. It has made important contributions to theoretical and professional research but has been insufficient on its own to explain the complexity and plurality of contemporary architecture. Theoretical production has been overly complex, making it difficult to understand (Gallo, 2021). Artificial intelligence (AI) represents the next stage aiming to overcome the limitations of parametric modeling.

In this context, digital transformation in architecture is defined by experimental projects initiated by some pioneers in the early 1990s. This can be described as a moment of change, not as a trend or movement, but due to a different approach to architectural design characterized by the application of new tools and themes of continuity and diversity. Developments in this process bring architecture together with AI.

However, this rise in the digital realm does not continue at the same pace. Carpo (2017) mentions that with the burst of the internet bubble in the early 2000s, the enthusiasm for the digital economy waned, and many distanced themselves from this transformation, marking the presence of a new turn. According to him, throughout history, collecting, transmitting, and processing data have been difficult and costly processes. Writing, printing, and other media technologies made these processes easier and

cheaper. However, until recently, data scarcity was always a significant issue. Today, we have more data than we need and are struggling to cope with the abundance. While institutions and societies are slowly adapting to this situation, individuals had to quickly adapt. The term "Big Data" refers to our capacity to collect, store, and process increasing amounts of data at lower costs. This concept arises from continuous technical improvements in digital technologies, similar to the advantages brought by writing or printing. What is new is the recognition that today's data economy is unprecedented in history (Carpo, 2017). Since the 2010s, data has been seen as abundant and cheap, and it continues to become even more so. If this trend continues, it can be said that in the future, data can be recorded and processed at almost zero cost.

Data plays a significant role in architectural projects and is used from the very beginning of the design process, especially in solving complex design problems. According to Gallo (2021), the number of offices using AI-supported applications is increasing. Original design hypotheses addressing specific issues in the design process are produced using advanced digital tools, and the physical context of the design is simulated (Figure 5). The design process is based on reviewing the effectiveness of options optimized for various aspects of project performance through dialogue and comparison among different options and determining new solutions. The relationship between architectural design and formal research also varies. Some applications include formal expression in the next stage guided by scientific work, while others consider formal and communicative aspects before analysis and performative simulations.

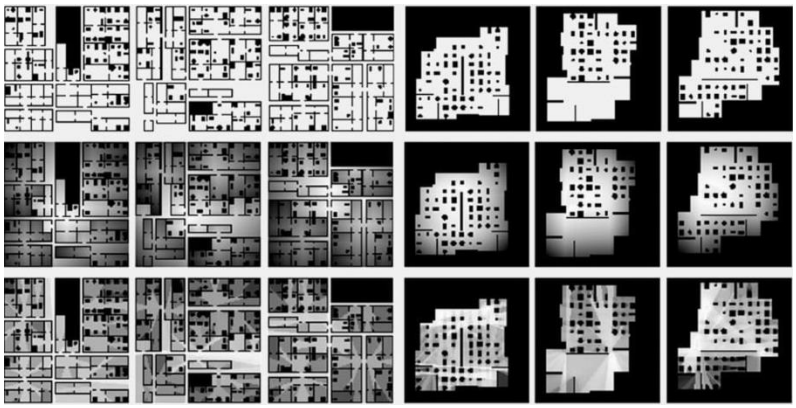

Figure 5. Plan alternatives from Foster + Partners. The neural network learns from the feedback, generating plan alternatives (URL-2).

Another contribution of AI to architecture can be evaluated as "simulation." When Filippo Brunelleschi invented linear perspective, he created a method that simulated the optical cone and thus human vision through a graphic process. Simulation practices have always been based on models; these are representations of reality defined by the laws and parameters of the physical world. Today, "digital simulation" has taken on this role, using simulations of performance according to many more factors to determine design hypotheses (Gallo, 2021). For example, Frei Otto, a pioneer of digital design, describes the project as a process aimed at solving infinite variables that are often invisible and uses physical models to simulate the formation of architectural forms (Gallo, 2021, p.204). In recent years, simulation has also been used in areas such as facade design, urban planning, and program analysis to obtain parameter responses and for creative purposes.

AI provides new tools for urban planning to analyze urban textures and create new urban models. AI contributes to the design process by generating alternative designs that architects can use and develop as

initial drafts. AI rapidly produces designs by placing different functions under various parameters. In structural design, AI is used to discover and simulate new structural forms. AI can offer structural options different from traditional methods by predicting different load distributions and material distributions. AI provides significant contributions to simulating 3D models and scenes in architecture and detailing them according to various styles. This situation saves time for the designer while also serving as a source of inspiration for new ideas (Figure 6).

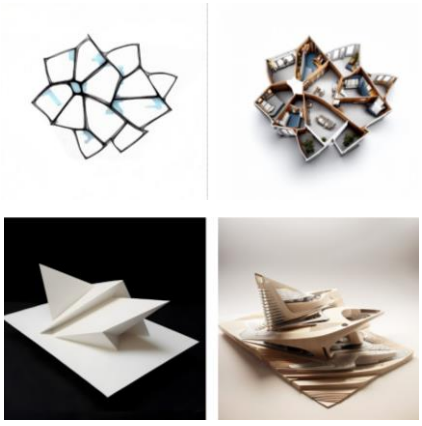

Figure 6. An AI tool that transforms drawings or 3D models into design alternatives (URL-3).

The use of AI in architecture allows for exploring wider areas in the design processes and formulating design rules more effectively, playing a significant role in collaboration and detailed definition processes by enabling changes to the design model and anticipating design problems in advance.

Despite all the contributions of AI in the design process, it cannot yet be said to achieve the same efficiency in production. According to Leach (2022), AI cannot yet carry out fabrication on its own, it can only control

the production process. This is because materials are analog and the digital world is not physical. The term "digital fabrication" often used to describe the digitization process, is misleading; the correct term should be "digitally controlled fabrication". Because AI can only execute instructions, it cannot perform the production itself. While robots are good at repetitive tasks, they struggle with simple physical tasks. For example, while placing a brick is easy for a human, it is difficult for robots; however, as much research is being done in this area, it is likely to be a problem that will be solved in the near future. Another example is Autodesk's AI research team trying to solve this problem using digital simulation to enable a robotic arm to recognize and place Lego bricks (Leach, 2022). Along with this situation, it seems likely that robots will be able to perform more complex tasks in the application process in the future.

4. Conclusion and Suggestions

In this technical study, an attempt has been made to explain the concept of artificial intelligence and to examine its applications in architecture through its historical development process. In this respect, it can be said that the study is an initiative to develop various inferences about the current use of AI and its possibilities in the near future.

According to the research, although AI applications in architecture are used for planning and form generation, it can be said that the most intense interest today (especially text-to-image) is seen in image generation tools. The widespread use of these tools has been faster because they help non-designers quickly visualize their concepts and ideas without requiring advanced technical knowledge. These tools have

become the preferred choice for architects, designers, and other disciplines due to their ease of use and photorealistic rendering capabilities.

The maturation of digital tools has also changed how architects represent and communicate their projects. Traditionally, architects communicated with technical drawings and perspectives, but now they use high-quality digital visualizations. This has led to the formation of a new discipline and profession area called CGI (*Computer-Generated Imagery*). Although not very widespread yet, in the near future, auxiliary software for architectural representation and diagram creation will also increase.

Drawing, always a central theme in architectural design, has had its role questioned as the relationship between digital and architecture matures. While digital tools offer objective advantages in terms of precision, speed, and the integration of computational processes, freehand drawing continues to play an important role in the architectural design process. Freehand drawing holds a significant place in the thinking and creation processes of designers, beyond the collaboration and complex design integration offered by digital tools (Gallo, 2021, p.192). Xavier de Kestelier argues that drawing is the foundational practice of an architectural project, needed at every stage, and is still important in materializing thought (as cited in Gallo, 2021, p.194). Despite the possibilities offered by digital models, the traditional drawing methods seem to remain relevant.

Although AI has made a significant breakthrough in the field of visualization, it is still limited in fabrication. We know that deep learning is effective in perception tasks, but it is seen to be limited in more

complex and long-term projects. Russell (2018) states that deep learning will be inadequate for complex tasks like building a factory. Such projects require broader knowledge and logic, such as overcoming physical obstacles, evaluating structural features, and creating plans. According to Leach (2022), deep learning falls short for these tasks because it cannot provide sufficient data, thus requiring a different type of artificial intelligence for such projects.

Despite the positive contributions of AI to design and architecture, programs that produce plan schemes, 3D models, and visuals can limit the creative thinking abilities of architects. While the design practice, which develops over time with operative methods, is nourished by AI tools; the ability to generate many possibilities simultaneously and produce design experiments quickly may minimize the actions of designers, raising questions about how this will affect the creative abilities of architects. In traditional architectural design, the design process, which develops with intuitive thinking, sketching, and production, poses a risk of progressing negatively when minimized by AI. In this respect, digital tools should be seen as parallel tools that enhance the architectural project rather than replacing old methods.

From another perspective, while moving away from traditional design methods, developments in the information field also provide new possibilities for architectural design that require looking at it from an informative rather than an intuitive approach. AI-supported solutions, which have shown significant development in data analysis beyond form and visual production, enable the creation of numerous iterations to analyze past data and evaluate the best results. The inclusion of AI in the

early design stages allows architects to save a large amount of time and resources, enabling them to focus on more creative aspects. Additionally, new tools that improve sustainability and data collection provide significant advantages for architects. Architects and engineers can make more effective design decisions by analyzing building performance before application, detecting potential problems early. The developing BIM (Building Information Modeling) paradigm, which affects the current design process, is not only a model enriched with digital data but also a process that enables collaboration among professionals from different disciplines in the design and application process. BIM allows the creation of detailed and complex models at every stage of architectural projects, automatic generation and control of technical drawings and documents.

Although integrated into architectural design; text-to-image AI, new algorithmic logic, the proliferation of BIM, the emergence of new 3D scanning techniques, numerical simulation, virtual reality, and augmented reality developments necessitate questioning the role of the architect; as seen, the architect will continue to exist as a decision-maker and process manager until at least AGI develops. In this sense, it is possible to say that artificial intelligence cannot eliminate the architectural profession as feared. However, it is also clear that it will become more widespread in every aspect of our lives, as in architecture.

''AI is certain to become an integral part of our future, and will undoubtedly prove to be a powerful aid in augmenting human design abilities and speeding up the design process. The writing is on the wall. By the end of this decade, we could predict that there will not be a single

profession or discipline left untouched by AI. And architecture will be no exception. Thanks to AI, the very practice of architectural design will be completely overhauled, and so will architectural education.''

(Leach, 2022, p.5).

To better understand how we are adopting AI applications, which are becoming a part of our professional and daily lives, and making them a "*prosthetic extension of our bodies*," as Leach (2022) puts it, we can refer to Maurice Merleau-Ponty's philosophical perspective. Merleau-Ponty argues that any tool can eventually be adopted as part of our body schema, allowing us to experience the world through these tools. For example, a visually impaired person using a white cane eventually makes the cane "invisible," and the cane becomes part of the person's expanded body perception. This situation explains how tools, including technology, become extensions of us and shape our interaction with the world (as cited in Leach, 2022). As AI software develops and its areas of use expand, this effect will increase even more. Especially with studies in the field of neuroscience, ways of establishing a partnership between artificial intelligence and the human body and mind are being explored. These studies may not lead to the emergence of "cyborgs," half-human, half-robot beings seen in science fiction films, but they seem to pave the way for a symbiotic relationship and hybrid intelligence between humans and machines.

When AI is seen not as an end in itself but as a tool that enhances human intelligence, the way opens for collaborative development and use. Perhaps now we will hear more about the concept of "*Extended Intelligence*" (EI), which proposes enhancing human intelligence rather

than replacing it, instead of the often-predicted AI replacing human intelligence. Because just as the mind and body can be extended with technological devices, intelligence can also be developed through artificial intelligence. Extended intelligence is not just a concept but an approach related to how we interpret our relationship with technology. This approach is about recognizing the tools we create as an extension of our abilities and enhancing our natural capabilities. With this approach, seeing the relationship between AI and human intelligence not as a comparative competition but as collaboration will lead to more creative outcomes.

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The article complies with national and international research and publication ethics.

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Discourses and Practices on Housing in Istanbul During the Ottoman Modernization Process in the Early 20th Century

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1. Introduction

During the Late Ottoman and Early Republican periods, which can be considered the fundamental time frame for the transition from traditional to modern, the process of modernization was extensively discussed through the lens of housing, with modernizing individuals frequently being examined in terms of their settlement patterns and homes. In the last quarter of the nineteenth century, the modernizing protagonists of novels and stories moved from places in Istanbul associated with traditional residential areas or national character to the city's modernizing neighborhoods. Novel character of Ahmet Mithat Efendi (1876/2014) leaves his mansion with a large garden in Üsküdar to build a new masonry house in a neighborhood near Beyoğlu in Tophane, while character of Recâîzâde Mahmut Ekrem (1886/2023) eagerly awaits March to move from his winter mansion in Süleymaniye to his summer mansion in Çamlıca. Character of Samipaşazade Sezai (1889/2021), on the other hand, has his new European-style house built in Moda. Moreover, this is not merely a practice of relocating to escape the strict supervision of traditional neighborhood culture; the appearances of the homes of modernizing novel heroes, their internal living patterns, and interior elements are depicted within a framework of innovations. One of the most detailed examples of such descriptions can be found in Ahmet Mithat Efendi's novel *Taaffüf* (1895/2018). In this depiction, the modernization of the mansion is related to the homeowners, who, rather than living with a large household, lean towards becoming a nuclear family and thus have a smaller, masonry-built, European-looking mansion filled with European furnishings. However, the

mansion described by Ahmet Mithat (1895/2018, p.9-14), includes a *sofa*[1] (even if it is small as required by the "new style architecture"), still retains a large number of servants, features *harem-selamlık*[2], and is constructed as a two-story building over a ground floor, with the first floor being the main living space, and outbuildings such as the kitchen, bath, and stable separately built within the garden. Thus, it is understood that until the turn of the century, mansions underwent changes in terms of location, lifestyle, and appearance within the framework of traditional preferences. By the Republican period, the modernization of housing advanced alongside new understandings of family and home brought by Republican ideology, with the crowded household life of upper-middle-income families gradually giving way to nuclear families, the separation of male and female quarters beginning to disappear (Duben & Behar, 1996), and new architectural appearances emerging in relation to this shift. While in the discourses emerging in the last quarter of the nineteenth century, debates over housing progressed through the transformation of mansions (*konak*) representing old customs and habits, by the Republican period, discourses began to include sharper breaks from tradition, with structures that became known in the period's terminology as *'köşk/villa'* representing these breaks, and mansions becoming visible only in their aging and disappearing aspects.

Therefore, the first quarter of the twentieth century represents a particularly interesting transitional period, especially in the context of upper-middle-income family homes, between the time when the traditional

[1] It is a term mostly used to describe the common space between rooms in traditional Turkish houses.

[2] Separate quarters of a mansion for men and women or residence and reception.

housing order began to be surpassed and the period marked by the sharp breaks envisioned by Republican modernization in the context of housing. This period should be considered a special phase within the modernization process, where life and structures broke away from traditional standards, yet had not fully aligned with the ideals of the Republican Era; thus, it was a time of diversity in the shaping of homes and the disappearance of constants. Consequently, the focus of this study is on how mansions/upper-middle-income family homes adapted to the modernization process during this transitional period.

2. Scope and Method

During the early modernization and thereafter, particularly with the Tanzimat Period, Istanbul continued to experience changes in its spatial and social structure within the unique political and economic environment of the early twentieth century. This study focuses on the traces of these ongoing changes in space and life at the turn of the century and investigates the applications reflected in the city and architecture through new settlement areas, using the literary writings and discourses of the period. Therefore, this research aims to track the changes by following the texts and discourses of the period's authors and referencing contemporary studies, while also examining cartographic documents, trade yearbooks, and old photographs. This dual approach will provide important clues in understanding the relationship between the dynamics of modern life and space at the turn of the century through discourse and forms of application, as well as in making sense of how lifestyles adapted to the new conditions.

2.1. 'The First Quarter of The Twentieth Century' in Istanbul's Modernization Process

The end of the nineteenth century and the beginning of the new century is defined as a period of significant change and adaptation in the Ottoman Empire, as it was in other countries. Until the turn of the century, within the ongoing modernization efforts of the Late Ottoman Period, various factors contributed to the transformation of Istanbul and its housing. These included the assurance of individual rights, including property rights and equality before the state, to the citizens; a steadily increasing urban population; the search for local governance solutions in place of the traditional Ottoman urban management; the transition from an organically growing urban fabric to one that expanded with broad geometric roads in a planned manner; and the promotion of masonry construction.

At the turn of the century, the understanding of architecture was influenced by the Arts and Crafts and the subsequent Art Nouveau movements, which were defined as the first phase of modern architecture (although its foundations date back to the end of the previous century) in the West, and which actually produced a new discourse by criticizing all eclectic and historicist tendencies. This period prepared the First National Architectural Movement[3], which brought about a change in the

[3] In the texts of Turkish architectural history and theory, the concepts of First and Second National Architecture can be handled with different definitions. Aykut Köksal calls the architecture of this period Neo-Ottoman Architecture and discusses it through the concept of "National" (Köksal, 2002). Sibel Bozdoğan, on the other hand, states that this movement, later defined by architectural historians as the First National Style, is described as the "National Architectural Renaissance" by those who lived during the period and uses the term "Ottoman Revivalism" (Bozdoğan, 2015).

understanding of architecture in the Ottoman Empire, but mostly emphasized forms and ornamentation that emulated Ottoman architecture. In increasingly more populous Ottoman capital, the modernization at the turn of the century, unlike the Early Ottoman Modernization and Tanzimat Periods, is characterized by the acceleration of linear urban growth towards the north. Although the neighborhoods formed by the inward-looking structure of ethnic groups persisted in the city's development during this period, it can be said that they gradually dissolved. The most notable development axis where this can be observed is undoubtedly the Pangaltı-Şişli-Harbiye line. Gümüşsuyu, Taksim, and today's Cumhuriyet Avenue, along with Pangaltı, Şişli, and the adjoining Nişantaşı, became the city's modernizing new neighborhoods, and in novels set in this period, modernizing protagonists are now moving to these areas.

2.2. 'Nişantaşı, Pangaltı and Şişli Neighborhoods' in Istanbul's Modernization Process

In the first quarter of the twentieth century, the boundaries and formation of the neighborhoods of Pangaltı, Nişantaşı, and Şişli, where significant steps in the modernization of Istanbul's residential areas were taken, can be traced in Pervititch's maps dated 1923-24-25 (figure 2).

Nişantaşı was used as a shooting and hunting area by Sultan Selim III during the early modernization period of the Ottoman Empire. During this time, Selim III had a small mosque (*mescit*) built in the area for use during hunting seasons. Later, during the reign of Sultan Abdülmecid, when modernization efforts became more formalized, the Teşvikiye Mosque was constructed in place of this small mosque. With the relocation of the palace first to Dolmabahçe and then to Yıldız, development accelerated, and the

area became a residential region for Ottoman palace members, high-ranking state officials, and elites. By the 1870s, mansions belonging to these individuals began to be built one after another in Nişantaşı, some as private properties and others owned by the palace (Akbayar, 1994a) For example, the Teşvikiye part of Nişantaşı, including the Muradiye neighborhood that extended towards Beşiktaş (towards the direction of development from the palaces), became a settlement with a population of 5,293 and 616 households (Akbayar, 1994b). Until the twentieth century, the neighborhoods and buildings constructed in Nişantaşı and Teşvikiye, according to Sedad Hakkı Eldem (1987, p.152), appeared Westernized from the outside but still retained a Turkish character, representing an example of the adaptation between European-style settlements and traditional Turkish settlement patterns. Eldem refers to the period when these areas had not yet been filled with apartment buildings and the greenery surrounding the houses and neighborhoods had not yet disappeared. As can be seen from the Pervititch map, during the first quarter of the century, the neighborhoods and mansions built around the mosque still maintained their existence amidst the greenery. The "Turkish character" that Eldem mentioned in the formation of these areas was likely directly related to the Muslim-Ottoman population that constituted them.

Indeed, in the 1908 trade yearbook, when listing the building numbers and owners in the direction from Pangaltı towards Nişantaşı, the phrase "from Harbiye Street to the Turkish neighborhood" (“De la Rue Bouyoukdere (Harbie) au quartier turc.”) was used (Cervati, 1908, p.1466).

As Nişantaşı began to develop in the last quarter of the nineteenth century, Beyoğlu also started to expand northward. The fire of 1870, which

destroyed a large part of Beyoğlu, further contributed to the area's development. As a result, Pangaltı gained momentum in terms of construction and served as an extension of the city's modern center. While there were neighborhoods like Tatavla nearby, which was old and could not be considered upper-class residential areas, Pangaltı was known to develop as a more planned, multilingual, and multicultural area, intended to be a carrier of modern life (Çobankent, 2022, p. 10). According to the map drawn by engineer d'Ostoya under the 6th District Beyoğlu Municipality cadastral office between 1858-1860, while there was still sparse construction in Pangaltı, the axis of Pangaltı Street was being formed, branching off towards Şişli and Nişantaşı, and the surrounding area was starting to be divided into parcels (figure 1). This can be seen as an early indication that these areas would be established according to modern urban planning principles

Figure 1: The Pangaltı section of the 1:2000 scale cadastral plan (D'Ostoya,1858-1860)[4]

[4] The map can be accessed from: İBB Atatürk Library https://katalog.ibb.gov.tr/yordam/?dil=0&p=1&q=d%27ostoya&alan=tum_txt&fq[]=kunyeAltTurKN_str%3A%22060%22&sno=14&demirbas=Hrt_005692

From 1881 onwards, the introduction of horse-drawn trams, and later, in 1913, electric trams running from Taksim towards Pangaltı and then to Şişli, accelerated and expanded the development in Şişli. Due to Şişli's connection with Nişantaşı and Pangaltı, it became a place where foreigners, upper-middle-income non-Muslims, Ottoman elites, and intellectuals striving for Westernization resided. As the century turned, along with the mansions of Istanbul's wealthy foreigners, non-Muslims moving from Beyoğlu to this area, Ottoman pashas, high-ranking officials, and intellectuals, important institutions like Darülaceze and Etfal Hospital started to emerge (Dünden Bugüne İstanbul Ansiklopedisi (vol 7), 1994, p. 184). After the turn of the century, mansions became denser, and the first apartments began to appear.

The rail transportation system, which played a significant role in the development of the Pangaltı-Nişantaşı-Şişli neighborhoods as residential areas, created the main axes of development, identified in the Pervititch maps (1924-25) as Pangaltı Street (now Cumhuriyet Street) and Şişli Street (now Halaskargazi Street) - Harbiye Street (now Valikonağı Street) which is divided into two from Şişli Street (figure 2). The area surrounding the Pangaltı-Şişli-Harbiye axis developed both as a settlement connected to the city's modern center and as a pioneering area in Istanbul that offered more contemporary amenities according to the conditions of the time. These were among the first places to be equipped with infrastructure such as electricity, gas, water, and sewage systems. Here, a settlement pattern emerged with rectangular blocks of buildings formed by roads intersecting at right angles, closely resembling a grid plan, unlike the organic road network of traditional Istanbul.

In the turn of the century, the neighborhoods of Pangaltı, Nişantaşı, and Şişli appeared as residential areas housing palace members, bureaucrats, upper-middle-income Muslims, non-Muslims, and foreigners. Within the freedom of settlement provided by the diverse cultures of the late Ottoman era, the settlement and construction patterns of the Pangaltı-Şişli-Harbiye street axis were directly influenced by its multicultural population, who built residential areas and social structures necessary for living together with their cultures. For example, in the 1830s, with the support of the palace, the Armenian Catholic community built hospitals, churches, and row houses (Surp Agop) in Pangaltı, and the Levantines constructed the shelter for the poor (Artigiana Düşkünler Evi). Moreover, because of the increasing differentiation in social status, gradually weakened the boundaries between ethnic groups along this development axis. As Murat Güvenç's research on the city's social geography and property ownership indicates, while ethnic and social class differences can be regionally observed in Beyoğlu and İstiklal Street houses the upper classes independent of ethnicity (Arlı, 2010, p. 421), it can be inferred that Pangaltı Street and the Şişli-Harbiye street axis, as continuations of İstiklal Street, also housed the upper-middle segments of the cosmopolitan population. Therefore, the Pangaltı-Şişli-Harbiye axis, with its cosmopolitan population and contemporary amenities, sheds light on the formation of the residential fabric and housing during the early twentieth-century modernization and offers insights into the potential for modernizing the homes of upper-middle-income families.

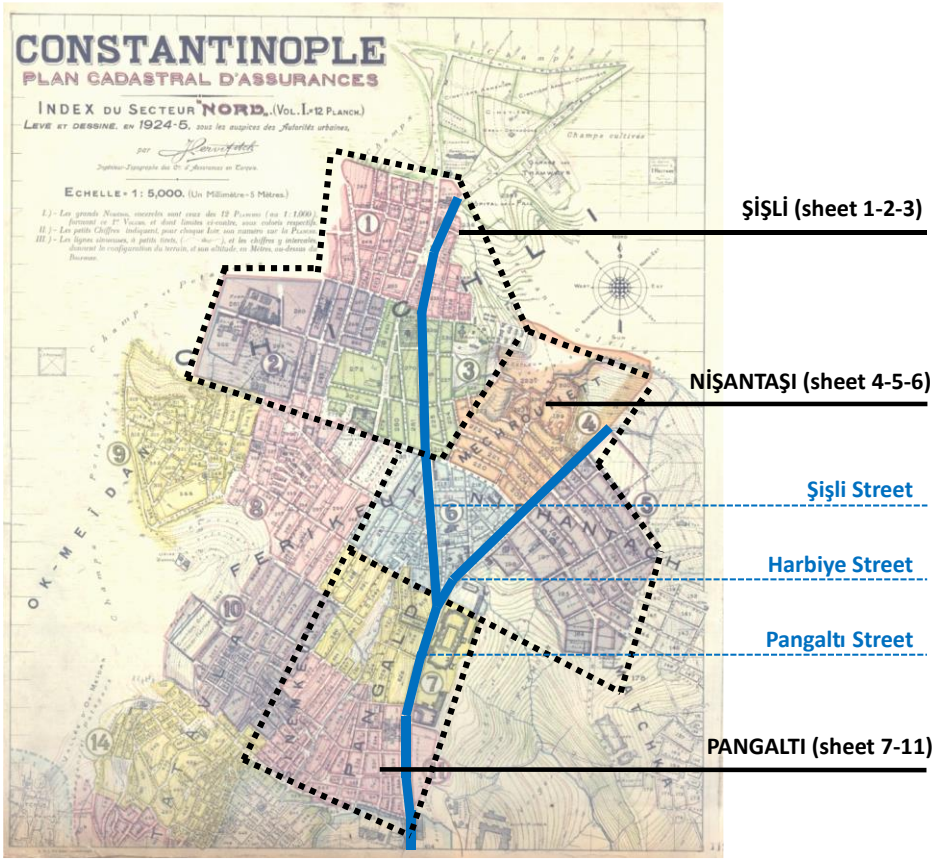

Figure 2: In the Pervititch map: The areas covered by the maps of Pangaltı, Şişli, and Nişantaşı, and the Pangaltı-Şişli-Harbiye Street axis. (Pervititch, 1924a)[5]

2.3. 'Mansions' in the Adaptation of Housing to the Modernization Process

In the first quarter of the twentieth century, the prevalent housing type for the upper-middle-class families was still mansions or single-family houses. Although apartments, which began to spread in Beyoğlu during the second half of the previous century, gradually extended to different

[5] The map can be accessed from: Salt Research https://archives.saltresearch.org/handle/123456789/100322

districts of Istanbul, it is challenging to envision upper-middle-class families transitioning from large houses and crowded living arrangements to apartment living with their nuclear families, at least for the first quarter of the twentieth century. Although the spread of apartments in the Pangaltı-Şişli-Harbiye Caddesi axis, the northern development direction of Beyoğlu, seems plausible, it can be anticipated that mansions / detached houses[6] are more common in this axis as it is also the residential area of upper-middle income families. Therefore, in the first quarter of the twentieth century, it is quite meaningful to track the modernization of housing through mansions in the Pangaltı-Şişli-Harbiye Streets axis.

Three key points for tracking the adaptation process of upper-middle-class single-family houses / mansions to modernization include: at the urban, architectural and interior scales; mansions' adaptation to I. the city's modern urban arrangements and parcel-road relationships, II. modern construction systems and appearances, and III. modern living concepts and spatial configurations. The tools used for exploring these three points are: I. Cartographic documents, primarily the cadastral-based insurance maps of Pangaltı, Şişli, and Nişantaşı dated 1924-1925 by topographic engineer Jacques Pervititch for the Turkish Insurance Department, II. old photographs of the area, and III. discourses traceable through the literary works of the period. Thus, the potential of mansions to adapt to modern

[6] It is possible to see mansions and detached houses as two housing definitions that are similar in some respects and different in others. Additionally, research conducted on Beyoğlu has revealed the existence of collective housing, which can be defined as a pre-apartment type formed by the transformation of detached houses, predominantly inhabited by middle-income, particularly non-Muslim, Ottoman populations (Öncel & Kafesçioğlu, 2004-2006). This study also considers the possibility that similar collective housing may have existed along the Pangaltı-Şişli-Harbiye Streets axis.

urbanism and settlement patterns, modern materials and appearances, and modern ways of life will be examined through comparative readings of discourse and application, starting from the Pangaltı-Şişli-Harbiye Streets axis. However, since the three points to be followed in the adaptation process of mansions to modernization -city-architecture-interior scales- do not correspond directly to the three tools used in the research -maps, photographs, and discourses- it seems impossible to separate and understand these three points independently. Therefore, to grasp the holistic adaptation of mansions to modernization, these three scales will be discussed in an integrated manner through parallel readings of the three tools.

3. A Discussion on The Adaptation of Mansions to The Modernization Process in The First Quarter of The Twentieth Century Based on The Pangaltı-Şişli-Harbiye Streets Axis:

In texts focusing on the first quarter of the twentieth century, the neighborhoods of Pangaltı, Şişli, and Nişantaşı are prominently discussed as centers of intense modernization. These areas became the residences of upper-middle-class individuals who began altering their traditional settlement and living habits. For instance, in Orhan Mithat's novel *Şişli Hayatı* published in 1923, it is illustrated that a social life significantly different from the traditional one in Beyoğlu began to flow towards Pangaltı and Şişli, with Şişli becoming a representation of modern life similar to Beyoğlu. Traditional privacy norms were surpassed; religious, moral, and social laws were violated, and a more "civilized" social life emerged, characterized by European-style clothing (Orhan Mithat, 1923/2005, p.77). According to the author, despite the "dim and gloomy"

atmosphere of Beyoğlu's settlement pattern, these areas appeared "more beautiful and spacious" (Orhan Mithat, 1923/2005, p.82). However, from the descriptions in the novel, it appears that the social life's venues, such as cinemas, shops, and displays, extended only as far as Pangaltı from Beyoğlu. Indeed, due to Pangaltı's demographic, lifestyle, and cultural similarities with Pera, it is known that renowned Pera businesses opened branches in Pangaltı, mirroring their potentials (Çobankent, 2022, p.93). Orhan Mithat also describes that in the mansions of Nişantaşı, traditional neighborhood activities (such as gatherings for weddings, feasts, and festivals) continued, but the tranquility and serenity of the mansions were replaced by display and splendor. Instead of the traditional habits of privacy, Orhan Mithat adds to his narratives women's laughter spilling out of the halls and the piano, one of the main symbols of the modernizing domestic space of the period. In another example, Mithat Cemal Kuntay, in his novel *Üç İstanbul* published in 1938, which offers striking glimpses of Istanbul from the reign of Abdülhamid II, the constitutional era, and the armistice period, presents a similar understanding of domestic life in a Nişantaşı mansion. In the novel, Adnan, who has ascended to an upper-class lifestyle, moves from his old and small house in Aksaray to a large mansion in Nişantaşı. Much like his wife Belkıs, whom he married thinking others would admire, this mansion exists to be admired and to prove his social status. Adnan, in his tuxedo, and Belkıs, in her European-style attire, host evening banquets and soirées in the mansion. Thus, these novels suggest that the mansions in Nişantaşı transformed from their traditional social-living roles to become instruments showcasing the modern individual's modern lifestyle.

In texts focusing on the first quarter of the twentieth century, neighborhoods such as Nişantaşı, Pangaltı, and Şişli begin to feature apartments alongside traditional mansions as residences for modern individuals. Modern Muslim individuals start leaving their traditional neighborhoods, which were divided by religious differences, to live in apartments in Şişli. For example, in Refik Halid Karay's 1918 novel *İstanbul'un Bir Yüzü*, the protagonist moves from a two-century-old paşa mansion in Saraçhane to an apartment in Şişli, where gender relations were more liberal. Similarly, in Yakup Kadri Karaosmanoğlu's 1920 novel *Kiralık Konak,* the character who rejects traditional mansion life also relocates to an apartment in Şişli. In these narratives, the modern amenities of these places like the tramway and the apartment buildings are described in detail. However, the characters who move into these apartments often represent superficial Westernization rather than genuine modernization, with the apartment lifestyle depicted not as an advanced settlement culture but as a dwelling problem. Consequently, these novels offer a critical perspective on housing modernization, reflecting the perception of the area as a modern residential district and presenting mansions and apartments as two types of modern living.

Examining Pervititch maps from the first quarter of the century reveals that along the Pangaltı-Şişli-Harbiye Streets axis, road networks, building plots, and parcel layouts were planned. These maps show that mansions within gardens (some marked as ex-mansions) continued to exist. Additionally, with the modern development of the Pangaltı-Şişli-Harbiye Streets, a dense urban fabric of contiguous housing began to form. Small parcels were divided into building plots where sometimes detached houses

and sometimes apartments were constructed. Research indicates that the number of apartments in Istanbul, which was around 350 in 1910, rapidly increased to over 1000 by 1922, with a notable concentration of these new apartments along the tram route in Şişli-Harbiye (Güvenç, 2003). Therefore, the modernization of the two housing types depicted in novels -mansions and apartments- is confirmed by the maps.

These narratives and maps illustrate how mansions along the Pangaltı-Şişli-Harbiye Streets axis adapted to modernization in terms of road networks -parcel relationships, building techniques and materials, new domestic lifestyles. Although this axis primarily developed as a residential area for upper-middle-income individuals, the diversity of social classes and housing types resulting from Ottoman modernization in the early twentieth century requires a more detailed examination of how single-family house in dense housing contexts relate to mansions. Cartographic documents show that, alongside the mansions of Ottoman elite in Teşvikiye, more modest mansions were also present, with these more modest mansions being more common along Pangaltı and Şişli Streets in contiguous layouts. Moreover, in early twentieth-century Istanbul, while mansions coexisted with contiguous housing, at the same time, row houses, which emerged as a new type in the modernization process, also exist in the urban space. Examples of row houses can be seen in nearby areas such as Beşiktaş, Tatavla, and Elmadağ. Consequently, in this new development area, it is likely that various housing types emerged, including row houses and apartments, in addition to large mansions. Therefore, to understand how mansions adapted to modernization in Pangaltı, Şişli, and Nişantaşı, this section will be discussed under two

headings: I. how mansions within gardens adapted to modernization, and II. what elements contiguous housing types inherited from mansions.

3.1. 'Mansions Within Gardens' as A Dwelling of a Lifestyle from The Last Quarter of The Nineteenth Century

According to Sedat Hakkı Eldem's research (1986), traditional Ottoman palaces, which were designed to fit into gardens and courtyards without occupying much space, were not solid blocks but fragmented to adapt to function and topography. These palaces, compared to European palaces or chateaux of their time, were simple and modest in size. The mansions, which resembled farmhouses, were often considered "disorganized" by modern standards and thus began to lose favor. With modernization, the various building units that make up the palaces, mansions of sultans and pashas began to be gathered into a single and large building, and various styles began to accompany this large and whole appearance (Eldem, 1986, p.105). The Dolmabahçe Palace, built with this approach, likely influenced the shape of the mansions belonging to palace members, bureaucrats, and wealthy individuals in Nişantaşı. Indeed, Pervititch maps show that these mansions appeared to be composed of a large building mass and various outbuildings arranged within landscaped gardens. However, it is also possible that the internal lifestyle and sociological structure of the Ottoman upper class did not undergo significant changes, despite the transformations in their external appearance.

Sermet Muhtar Alus, known for his writings about old Istanbul, listed the names of the pashas and elites who owned the garden mansions in Nişantaşı in an article published in Akşam newspaper in 1938. In this article, he presented a profile of the people residing there, noting that this

profile favored not only grandeur in size but also personalization and ostentation in appearance. However, he described the Nişantaşı mansions as traditionally large, with *harem-selamlik*, large *sofa*, and numerous rooms, surrounded by walls and featuring shutters and he used the Halil Rıfat Pasha Mansion as an example of one of the most decorated in terms of appearance (figure 3). According to the Pervititch map (figure 3), the Halil Rıfat Pasha Mansion, similar to some other large mansions in the area, was divided into two by a garden wall. This division suggests, as Alus mentioned, that one side of the mansion was used as a *harem* and the other as a *selamlik*. Indeed, the Pervititch map clearly shows this division at Şadiye Sultan's mansion in Nişantaşı, with separate doors for each section (figure 4).

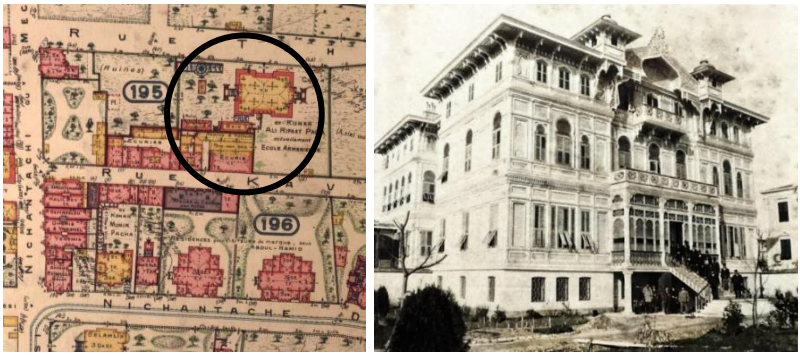

Figure 3: Halil Rıfat Pasha Mansion in Pervititch's Nişantaşı Map (sheet 5) (Pervititch, 1924b); Appearance of the Mansion (Topuz, 2017)

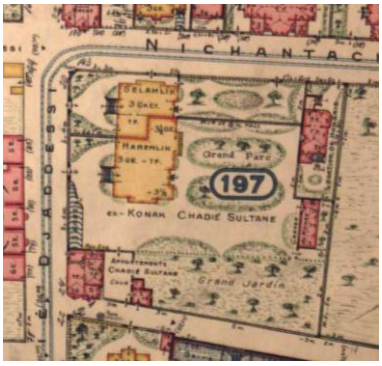

Figure 4: Şadiye Sultan Mansion in Pervititch's Nişantaşı Map (sheet 5) (Pervititch, 1924b); Appearance of the Mansion (Eski İstanbul Fotoğrafları Arşivi, Nişantaşı, n.d.).

Another mansion in Nişantaşı mentioned in Hıfzı Topuz's memoir *Bir Zamanlar Nişantaşı'nda* (2017) is the Hasan Hilmi Paşa Mansion. According to the book, Topuz was born in this four-story, twenty-room wooden mansion located on Hacı Emin Efendi Street in Nişantaşı in 1923. During his childhood, he lived in a large family setting that included his grandmother, paternal grandmother, a few aunts, and staff. Topuz provides a general description of the Nişantaşı's mansions within gardens, including this mansion: the garden contained outbuildings for staff, stable, feed storage, wood storage, and coal storage; most mansions had marble-columned porticos in front of the entrance doors and marble steps leading up to them; besides the main entrance, there was also a second door used for service and for the entry and exit of horse-drawn carriages. The ground floor included the *selamlık* (guest area), kitchen, pantry, bathhouse, and a laundry room next to the bathhouse, sometimes a dining room; a revolving door was located between the dining room and the kitchen. The first floor, used for daily family life, was furnished with ornate items; the living room featured the lady of the house's piano, Louis XV-style furniture, central

table, side tables, brass heaters, thick satin curtains, oil paintings on the walls, and photos of family elders and pashas; large chandeliers hung from the ceilings, and floors were covered with valuable carpets and rugs. The upper floors, which contained the bedrooms, often featured mirrored wardrobes, dressing tables, and nightstands. The traditional type of armoire were preserved in some rooms to store items for overnight guests. Rooms for servants, adopted children, nannies, and French or Swiss maids were also located on the upper floors. Thus, Topuz described the crowded internal setting and living arrangements of the mansion in a manner not significantly different from traditional practices, but the details of the interior furnishings are from the last quarter of the last century.

As seen from the photograph Topuz shared of the Hasan Hilmi Paşa Mansion, the mansion's ground floor is made of masonry while the upper floors are wooden (figure 5). Unlike traditional mansions, the entrance door to the mansion's interior is visible directly from the street but requires several steps to access, with an intermediary space between the street and the mansion's door. While the mansion's garden wall aligns with the street, revealing the upper floor of the mansion that extends beyond the garden wall, unlike traditional mansions, this mansion features large windows that directly compromise the interior privacy, rather than the blind walls or elevated windows common in traditional designs. According to Atilla Yücel's research (1999, p. 307), these trends: the use of ground floors, arrangement of the ground floors according to the same plan schemes as the upper floors, the transition of entrance doors opening directly onto the street, and larger windows influenced by new or imported materials reflect

the widespread results of social changes and cultural-stylistic preferences during the modernization process.

Topuz (2017) also mentioned the mansion's adaptation to changing lifestyles over time; by the 1940s, the mansion had been divided into seven apartments, with each unit equipped with toilets and kitchens to accommodate nuclear families. Furthermore, Topuz noted that during the same period, as the old families of Nişantaşı disappeared, many mansions were demolished to make way for apartment buildings.

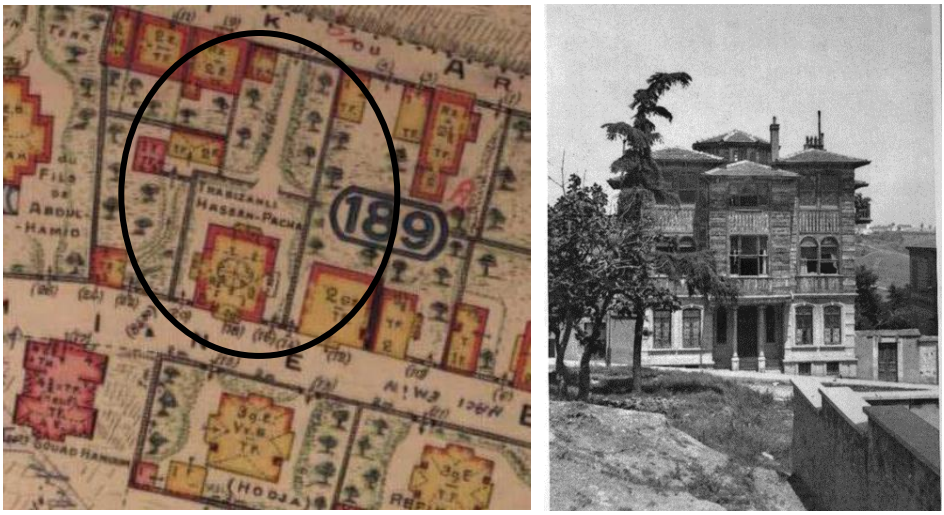

Figure 5: Hasan Paşa Mansion on Emin Efendi Street in Nişantaşı, as shown on Pervititch's map (sheet 5) (Pervititch, 1924b); view of the mansion (Topuz, 2017).

The designer of a pasha's mansion in the Nişantaşı area was Celal Esad Arseven, one of the intellectuals of the period. Although Celal Esad conducted extensive studies on architecture, architectural history, and urban planning throughout his life, he was not a professional architect. As mentioned in his book *Sanat ve Siyaset Hatıralarım* (Memoirs of Art and Politics), he began his architectural work utilizing the lessons he had

received at Harbiye. In 1903, he participated and won the World Fair to be held in St. Louis with a project that included old Istanbul neighborhoods, and upon the request of Fehim Pasha, who saw these projects, he built a large mansion project with thirty rooms on the street descending from Nişantaşı to Ihlamur and supervised its construction (Arseven, 1993, p.95) (figure 6). According to Sermet Muhtar Alus (1938), this mansion, due to its size and grandeur (even though larger mansions were present in the area), did not remain with Fehim Paşa but was converted into an inn and rented out in separate sections. Additionally, in the map known as the German Blues (*Alman Mavileri*), dated 1913-14 (figure 6) and the 1924-1925 Pervititch map (on the right side of the Nişantaşı area (sheet 5) (figure 2) it is shown as a school (Ecole Sultanie; Ecole). Therefore, the fact that the mansion was designed by non-architect intellectuals can also be seen as a facet of the modernization potential of mansions during that period.

Figure 6: Location of the Fehim Paşa Mansion designed by Celal Esad on the map known as the German Blues (Dağdelen, 2006); views of the mansion (Miralay Ali Sami, n.d.)

Intellectuals who were not architects but designed homes during the period include Şemsettin Sami and Tevfik Fikret. Şemsettin Sami, a multifaceted intellectual of his time and the author of the first Turkish novel *Taaşşuk-ı Talat ve Fitnat* (1872), the first Turkish encyclopedia *Kâmûsü'l-A'lâm* (1889-1898), and the first comprehensive modern Turkish dictionary *Kâmûs-ı Türkî* (1901), designed and commissioned a three-story masonry house with a tower near Caddebostan pier, which was quite different from the wooden mansions in that area (Ekdal, 2004, p.305) (figure 7). Another influential intellectual of the period, Tevfik Fikret, envisioned a personal "Aşiyan" on a hill he frequently visited with his wife Nazıma Hanım in the early 1900s. In a letter he wrote, he expressed that the idea of building a house there had become an irresistible thought for him:

> "A fixed idea (fikr-i sâbit ekseriya) in a person usually dominates and hinders everything. The need to build a house on a mountain top has recently started to dominate me with a particularly intense fixation. Sometimes it occupies and engrosses me so much that I am unable to do anything else. I find myself tied and entangled in my plans, as if I am nailed there with the first tools I hear and shiver at in every corner of my brain. With all my senses and feelings, with all my physical and spiritual energies, these lines surround, bind, and entangle me, and I can no longer do anything. I believe that if I own this nest, I will have a freer ownership of myself." (Yorulmaz, Andi, & Taşçıoğlu, p.13)

In the letter, he mentioned that the money from selling the old large mansion he owned with his brother would be more than sufficient to build the house he desired. Indeed, as stated in the letter, he realized his need to

build a house and completed it in 1906. A plaque with the name "Aşiyan" and the construction date was placed on the door of the house. Aşiyan consists of two floors built on top of a basement within a garden (figure 7). This house, designed by Tevfik Fikret for his own residence, is significant in terms of being the unmediated representation of his own idea of settlement/existence as implied in the above lines. The connection he made between owning this home and owning himself suggests that he approached the house not merely as a property but as a means of self-ownership. Here, rather than a traditional mansion shaped by standards and functionality, there is a mansion concept interpreted in an intellectual domain[7]. In the modernization process, viewing existence, its representation, and homes through the lens of tradition is replaced by an interpretation shaped by changing and diversifying perspectives on life and art, suggesting a more complex relationship with the residential space.

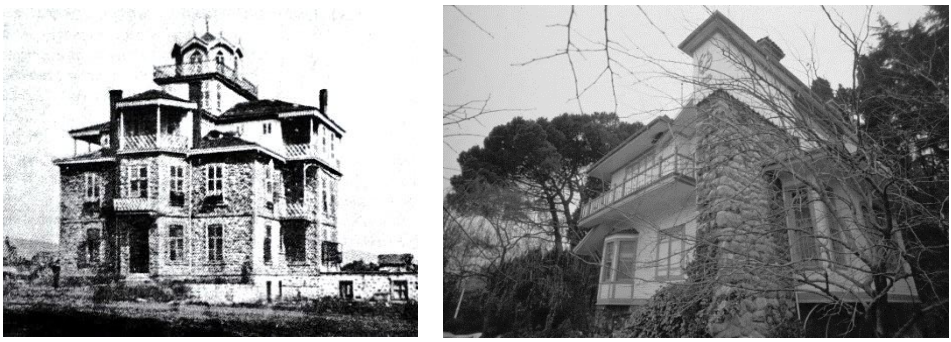

Figure 7: Şemsettin Sami's self-designed house, Erenköy (Ekdal, 2004, p. 306); Tevfik Fikret's Aşiyan, Rumelihisarı, 1905 (Bektaş, 1992).

[7] For a detailed study on the process that led Tevfik Fikret to build Aşiyan and the relationship between his identity as a thinker-artist-poet, see. Sevinç, C. (2019). *Varoluşun Otantik İmkanı Olarak Ev: Heidegger'in Kulübesi'nden Fikret'in Aşiyan'ına*. İstanbul: Kriter.

At the beginning of the 20th century, all these examples of upper-middle-class family homes, whether still existing or newly constructed, depart from the conventional understanding of traditional mansions as presented by the 19th-century witnesses like Abdülaziz Bey and Ali Rıza Bey[8]. They undergo transformations in terms of their placement in the urban environment, appearance, and interior living styles. While these examples offer some insights into the adaptation of mansions to the modernization process, it is clear that a more detailed typological study of upper-middle-class family homes within gardens from the first quarter of the 20th century is needed. As the process continued, the increasing value of mansion plots, due to changing social structures and population growth within the city, made it difficult to preserve existing mansions, many of which were demolished to make way for apartment buildings. However, towards the Republican era, upper-middle-class family homes began to move from the city center to the greener, more secluded areas of the city, adopting concepts like villas, summer houses. Therefore, examining the evolution of mansion type is essentially a sustainable topic.

3.2. Houses Aligned Along Linear Streets

At the beginning of the 20th century, while the large plots with garden mansions in Nişantaşı and its surroundings maintained the layout from the last quarter of the 19th century, as seen in the Pervititch maps, on the one hand, houses lined up along straight roads were formed in contiguous

[8] For the widespread understanding of mansions in the traditional order presented by Abdülaziz Bey and Balıkhane Nazırı Ali Rıza Bey, see: Ali Rıza Bey. (2011). *Eski Zamanlarda İstanbul Hayatı* (3th ed.). (A. Ş. Çoruk, Editing.) İstanbul: Kitabevi (Date of original work's creation 1921-1925); Abdülaziz Bey. (2023). *Osmanlı Âdet, Merasim ve Tabirleri*. (K. Arısan, & D. Arısan Günay, Editing) İstanbul: Ötüken Neşriyat. (Date of original work's creation 1910s).

arrangements. With the northward expansion of Beyoğlu, the settlement pattern and housing fabric here began to spread along the main streets of Pangaltı, Şişli, and Harbiye. By the turn of the century, the apartment buildings that had become common in Beyoğlu also started to proliferate in these areas. According to Sermet Muhtar Alus (1938), the apartments at the intersection of Şişli Street and Harbiye Street were among the first luxury apartments in the Şişli-Harbiye area (figure 8).

The residential fabric stretching along streets in these areas, including the main avenues of Pangaltı, Şişli, and Harbiye, is associated with the rise of apartment buildings as an extension of Beyoğlu. On the main streets, grand apartments in styles such as Neoclassical, Art Nouveau, and Art Deco stand out. However, looking at old photographs of Pangaltı, Şişli, and Harbiye Streets (figures 8, 9, 10), many of these buildings exhibit traces of mansion formation in appearance. In fact, commercial yearbooks shows that some of these buildings were independent houses of upper-middle-class individuals that adapted to the modern street and plot relations and the crowded avenues, aligning with apartment buildings. Unlike the garden mansions in larger plots of Nişantaşı, the houses along the Pangaltı-Şişli-Harbiye Streets axis, with their own dimensions and plot sizes, indicate a different social class that is economically distinct. The fact that these houses are either in contiguous arrangements or within a garden but partially aligned with adjacent buildings shows that there are different sub-groups within them. Therefore, relating these independent houses in contiguous arrangements to mansion types requires a more detailed

investigation[9]. However, it is evident that the houses along the Pangaltı-Şişli-Harbiye axis carry traces of the adaptation of mansion type to modernization, continuing the pattern of Ottoman upper-middle-class families settling in the city center.

Houses on Pangaltı, Şişli, and Harbiye Streets, with their use of masonry instead of wood and their facades designed in various styles, diverge from the traditional mansion appearance, similar to the garden mansions that emerged during the modernization process (figures 8, 9, 10). However, like traditional houses, architectural elements such as oriels, projections, and loggias are frequently used in the facades of these houses. Similar to the row houses with oriels and balconies over the oriels, which is a typological category of Western origin and which emerged as an Istanbul-specific formation[10], these houses also feature balconies over oriels. Given that the contiguous arrangement houses are relatively modest compared to garden mansions, it makes sense that some of these houses resemble row houses proposed for middle-income families or rows of two or three contiguous structures (figure 10).

As seen in figures 8 and 9, the houses on Pangaltı, Şişli, and Harbiye Streets are distinct from traditional mansions in their method of urban

[9] For example, the term "city mansions" was used for wealthy family residences that adapted to the modern road-parcel relationship and the congested urban fabric built at an earlier date in Beyoğlu. For the definition of city mansions and examples around İstiklal Street, see: Öncel, A. D. (2012). İstanbul'u Çalışmak ve Stefan Yerasimos. E. Eldem, E. Pekin, A. Tibet, & Ç. Anadol (Editing) inside, *Bir Allame-i Cihan: Stefanos Yerasimos (1942-2005)* (pp. 475-490). İstanbul: Kitap Yayınevi.

[10] For a study revealing the qualities of row houses specific to Istanbul, see: Batur, A. Yücel, A., & Fersan, N. (1979). İstanbul'da On Dokuzuncu Yüzyıl Sıra Evleri: Koruma ve Yeniden Kullanım İçin Bir Monografik Araştırma. *METU Journal of the Faculty of Architecture*, 5(2), p. 185-205.

integration, such as direct street or sidewalk access. For instance, the 1913-14 German Blueprints, despite lacking parcel and building information, show uninterrupted areas shaded in gray, indicating that the contiguous housing fabric directly connects with the street without an intermediate space (figure 9). Some houses have ground-floor windows elevated above eye level on busy streets in accordance with traditional privacy norms. The elevation of some ground floors suggests they were not used for commercial purposes. Additionally, as shown in Pervititch maps, some contiguous houses have gardens in front and behind them. Despite the creation of dense housing fabric due to the region's modernization and urbanization, many urban block still have large green spaces created by the rear gardens of the houses. These green spaces, although defined by regular geometries and designated for specific users, serve as a third element in the relationship between road networks and residential areas, similar to the old housing fabric (figures 8, 9, 10).

Figure 8: Parcels across from the Harbiye Military Museum on Pervititch's Pangaltı map (sheet 7) (Pervititch, 1925c); view from Pangaltı Street towards the junction of Harbiye and Şişli Streets, showing the houses across from the Harbiye Military Museum. (Anonymous,1933).

Figure 9: On Pervititch's Feriköy-Nişantaşı map (sheet 6) (Pervititch, 1925b), the parcel located between Şişli and Harbiye Streets; its appearance on the German Blues map (1913-14) (Dağdelen, 2006); residential fabric on this parcel: view from Şişli Street towards Pangaltı Street (with the Harbiye Military Museum visible in the background) (Güler, 1958)

Figure 10: On Pervititch's Şişli map (sheet 3) (Pervititch,1925a), parcels around the Bulgarian Exchequer and the houses next to the exchequer; Şişli Street (with the space on the right being the Bulgarian Exchequer garden); two houses next to the exchequer. (Eski İstanbul Fotoğrafları Arşivi, Şişli, n.d.)

One of the adjacent houses on Şişli Street, listed as number 208 (now number 106) on the Pervititch map and still standing today, is the Maksud Şahbaz House. Maksud Şahbaz, an Armenian jeweler, commissioned this house, which is believed to have been built in the early twentieth century, to be designed by architect Leon Gurekian, as indicated by the signature on the building. The house, designed as a ground floor with three

additional floors, features Art Nouveau artistic decorations and sculptures on its facade and was constructed for private use (Tönbekici, 2022, p.79) (figure 11). Given that there were also Şahbaz Apartments on Kır Street parallel to Şişli Street and on Harbiye Street, as well as another residence on Pangaltı Street owned by Şahbaz, it can be inferred that this house was used as the family residence while the apartments were constructed for additional income[11]. The wealth of the Şahbaz family is evident, and this explains why the Şahbaz House appears distinct in appearance from the more modest adjacent houses on Pangaltı-Şişli-Harbiye Streets. According to the Pervititch map, the house is aligned with other prominent apartments of the period, such as the Edhem Paşa Apartment and the Ougourlou (Uğurlu) Apartment. Like most nearby apartments and houses facing Şişli Street, the Şahbaz House also features a traditional layout where the entrance door does not open directly onto the street but instead has a small front garden, as well as a larger garden accessible from inside the building or through a gate in the garden wall at the back of the parcel.

[11]Apart from their own family houses, wealthy people building apartment buildings in the immediate vicinity to generate income is a common phenomenon during the modernization process, especially in the Galata neighborhood. The family houses and apartment buildings built by the Dikeos and Yannisopoulos in the Galata neighborhood can be given as examples (Öncel, 2010, p.231-234).

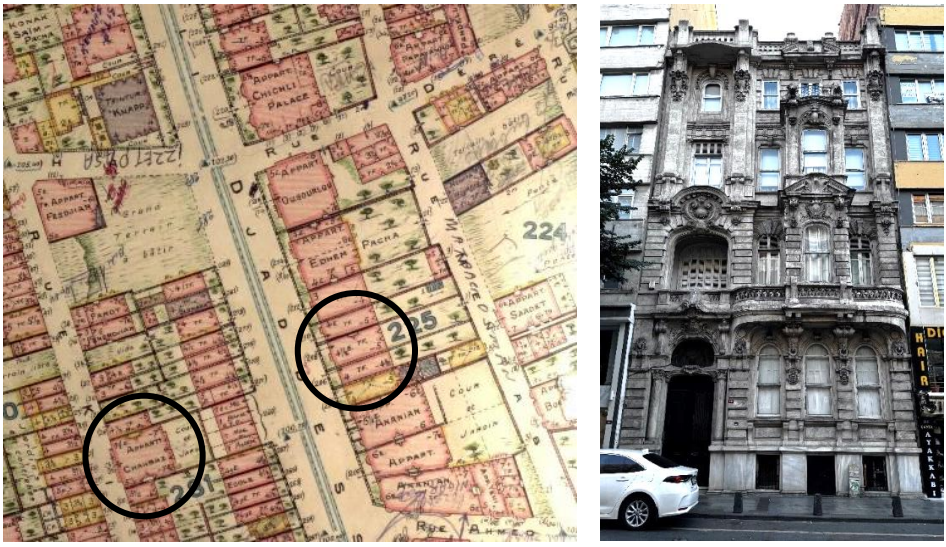

Figure 11: From Pervititch's Şişli map (sheet 3) (Pervititch,1925a), one of the Şahbaz apartments and Şahbaz House on Şişli Street; current view of Şahbaz House (photograph taken by the authors, 2024).

The building where Mustafa Kemal lived as a tenant with his family in 1918-19 and which is preserved today as the Atatürk Museum is another house built in the first quarter of the century on Şişli Street, ready to be converted into a contiguous order. The house, owned by Osep Kasabyan, was constructed in 1908; it consists of a basement, ground floor, first and second floors, and an attic (Osmanoğlu, 2013). During Mustafa Kemal's residency, the basement included a kitchen and bath; the ground floor had a staff room and dining room; the first floor was entirely used by Mustafa Kemal as an office, meeting room, and bedroom; the second floor was allocated to Zübeyde Hanım and Makbule Hanım. The staircase, located in the center of the building, leads to a spacious landing on each floor. Rooms on the front and back facades are accessed from this landing. The front façade's oriel and belvedere on the roof are traditional references. Additionally, like traditional Ottoman pashas' residences, this house was

used for political meetings and visits, becoming a place frequented by important politicians of the time. According to the Pervititch map, the house was built in masonry with a small front garden and a larger garden extending along the back of the parcel. On the urban block of this house and the opposite urban block, houses and apartments facing Şişli Street do not open directly onto the street; whether they are pasha mansions (Edhem Paşa Mansion, Saim Paşa Mansion, Hilmi Paşa Mansion), impressive apartments (Şişli Palas, Sebouhian Apartment), or more modestly scaled houses compared to these, they all have small front gardens and somewhat larger gardens at the back (figure 12).

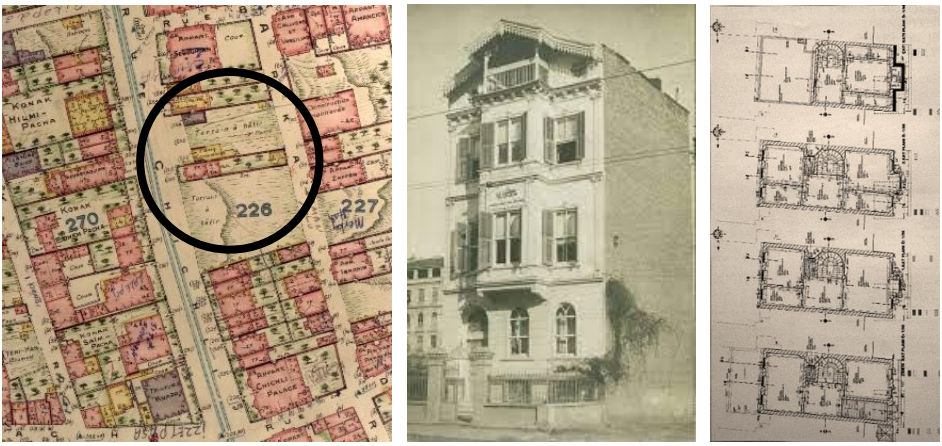

Figure 12: The location of the house on Şişli Street where Mustafa Kemal lived with his family as a tenant in 1918-19, according to Pervititch's Şişli map (sheet 3) (Pervititch, 1925a); its appearance (Zellich, n.d.); its plans (Osmanoğlu, 2013, p.308)

In Pervititch's maps of Nişantaşı, one of the buildings labeled as a mansion ("*konak*") is the house of Vedat Bey, who is known as one of the representatives of the First National Architecture movement. Vedat Bey was an architect who designed many residences in Istanbul at the

beginning of the century and implemented these designs. He was one of the period's intellectuals who believed in the qualities of traditional housing and argued that modernization in residential design should not come at the expense of these qualities. His designs maintained the traditional practice of dividing interior spaces into reception, living, and service areas[12]. However, his ability to adapt to contemporary trends, transitioning from palace architecture to Republican architecture, parallels the process of adapting traditional residences to modernization. For example, Vedat Bey's early residential designs, such as the İhsan Bey Mansion (Paşalimanı) and the Nuri Paşa Mansion (Yeniköy), incorporate both the lines of traditional upper-middle-class Ottoman family residences and the influences of Art Nouveau.

The two houses that Vedat Bey designed and lived in on Harbiye Street feature a Neoclassical formation that incorporates elements of Ottoman-Turkish architecture. The first house, built with a basement and three floors, includes traditional architectural elements such as a oriel (*şahnişin*) added in wood to the masonry facade. Some of the larger windows, compared to traditional sizes, are shaped with arches, and these arches are used in pairs to define the intermediate space between the street and the main entrance. The second house is situated on a triangular plot and consists of a ground floor, two additional floors, and a terrace. Its facade features similar characteristics to the first house, including the use of half-arches and oriel but employs smaller windows due to the freedom of its three facades.

[12] Such design approaches of Vedat Tek are clearly visible in his text: Tek, V. (1931). İstanbul İkametgahları. *Mimar* (10), s. 322-325.

Research on Vedat Bey's residences reveals the layout of the second house's interior[13]. The ground floor is entirely dedicated to service functions, including a service room, carpenter's workshop, pantry, laundry, and an ablution room, along with a large kitchen. Besides the main entrance, there is a service entrance, and a service staircase connects the ground floor to the upper floors. The first floor contains dining, living, reception rooms, and study rooms, with the study room connected to Vedat Bey's room on the upper floor via a separate staircase. The second floor has four bedrooms, each connected with various service functions and areas. The terrace floor includes a service room, shower and ablution room, Vedat Bey's relaxation room, a kitchen dedicated to his interest in cooking, a semi-open terrace, and a larger second terrace. It appears that the interior layout of the house is as personalized as the building's facade, reflecting Vedat Bey's unique conception of domestic space.

Vedat Bey's historical references in his designs were later celebrated by some intellectuals as a way for Istanbul, which had 'lost its memory' after the Tanzimat period, to rediscover its national character[14]. However, for others, the architectural style he was part of was criticized as 'reactionary architecture'[15]. Nonetheless, even the two houses Vedat Bey designed side by side on Harbiye Street, with their similarities and differences in facade compositions, can be interpreted as his attempt to present his own modern

[13] For studies on Vedat Bey's residences on Harbiye Street, see: Özkan, S., & Tek, A. (1979). Mimar M. Vedad Bey Konağı. *METU Journal of the Faculty of Architecture*, 5(2), p. 157-183; Batur, A. (Editing.). (2002). *M. Vedad Tek: Kimliğinin İzinde Bir Mimar*. İstanbul: Yapı Kredi Yayınları.

[14] As an example: Safa, P. (1942, 11 May). Mimar Vedad. *Tasvir-İ Efkâr*.

[15] As an example: Haşim, A. (1924, 20 February). Mürteci Mimari. *Müstakil Gazete* (3), p.3.

interpretation in residential architecture. It is also not difficult to infer that the Şadiye Sultan Apartment, which Vedat Bey designed on the parcel of the Şadiye Sultan Mansion, located near these houses, reflects a similar understanding.

In Pervititch's Feriköy-Nişantaşı map (1925b), on Harbiye Street, there is a residential block in alignment with the house Vedat Bey designed for his own family (1913) and the previous house designed by him (1908). This block includes residences bearing names such as Ali Bey, Sakelaridis, and Agopian, with no indication of apartments (figure 13). The 1908 trade yearbook lists Vedat Bey's first house, followed by residences in the same sequence: the house of Pangaltı's muhtar Serpossian, the apartment of currency trader Issac Topuzoğlu (who also lived in one of its apartments), ship supplier Stelianidi's house, the house of Soleo working in a cooperative company, telegraph worker Yuzbachian's house, Mouradian's house, pharmacist Gulanian's house, and the house of Mousta Bey, a member of the municipal council (Cervati, 1908, p.1466). In the 1922 trade yearbook, the residences following Vedat Bey's house are listed as Firouzeh Apartment, Hatchadourian House, Haşim Bey House, grocer Kostopoulos House, Şakir Bey House, offices of the Levantines, Portocaloglou House, Cosma Apartment, clerk Stelianidis House, Chakarian House, and Agopian Apartment (Rizzo, 1922, p.1003). Although building numbers are not consistently aligned among maps and trade yearbooks, the multicultural nature of the residential block is apparent, and most of the buildings are independent houses rather than apartments. Therefore, when evaluating old photos of these residences, it should be considered that some of these houses might have been

demolished and replaced by apartments or had additional floors added later.

Figure 13: On the Pervititch Feriköy-Nişantaşı map (sheet 6) (Pervititch 1925b), the urban block where Architect Vedat Bey's house is located; on Harbiye Street, the adjacent block is arranged from left to right, showing Architect Vedat Bey's second residence, first residence, and the continuing residential block. (Batur, 2002, p.277)

One of the prominent architects of the late Ottoman period and the early years of the Republic, Giulio Mongeri designed a residence for shipowner Ruşen Sadıkoğlu's family in Şişli, constructed in 1925 (Erten, 2016). This residence, which appears as a blank space on the 1923 Pervititch Şişli map, consists of three floors and an attic within a garden. Its domed tower, entrance stairs highlighted with geometric-patterned marble railings, tile panels on the walls, and pointed arches make it one of the significant examples of the influence of the First National Architecture on residential architecture in Istanbul (figure 14). The similar meticulous approach applied to Vedat Bey's and Mongeri's residences can be associated with the importance given to the facade and the search for an identity in the facade. The fact that this style was also chosen by Sarkis Torosyan, an Armenian-born Ottoman military officer, indicates that the First National Architecture could contribute to the modernization process of upper-

middle-class family homes as one of the new architectural languages of the time. On Pervititch's 1931 Üsküdar (Arapzade-İcadiye) map, in a section arranged according to Üsküdar's straight road-parcel relationship, a house located on one of the building blocks, enclosed by a garden wall and with a small garden beside it, is labeled as "Torosiyan property, rich villa" ("*propriété Torosiyan, riche villa*"). The house is represented in red on the map, indicating that it was constructed as a masonry building (figure 15). This house, which still exists today, was originally built ready to enter a contiguous alignment at the rear facade. Additionally, according to Dalita Hacyan, Torosyan's granddaughter, the house was built in 1930 by her grandfather, Monsieur Torosyan. The ten-member family lived in the house until the Wealth Tax was imposed. Since it was impossible to pay the accrued tax, the house was seized along with all its antique furniture (Bali, 2012, pp. 293-295).

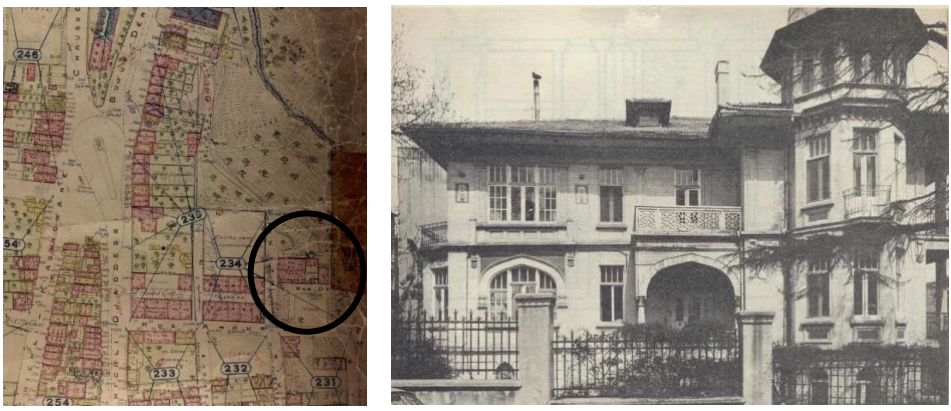

Figure 14: Location of Mongeri's designed mansion on Pervititch's Şişli map (sheet 1) (Pervititch, 1923); view of the mansion (Erten, 2016, p.154).


Figure 15: Location of the Torosyan Villa on Pervititch's Üsküdar (Arapzade-İcadiye) map (Pervititch, 1931); view of the villa (Bali, 2012, p. 294)

In conclusion, when examining the houses lined up along the Pangaltı-Şişli-Harbiye axis, it becomes evident from the facade decorations, the sizes of the houses and plots, and certain vital details of the interior spaces that the upper-middle-class families residing there exhibited various internal class categories. Consequently, the houses in these areas have formed different subtypes of the mansion typology, which, as can be supported by examples from other districts, have evolved into distinct variants. These subtypes are related to the typologies emerging during the modernization process, including apartments and row houses, yet they differ significantly from them. Therefore, these subtypes represent a separate area of study concerning upper-middle-class family homes during the modernization process and require further research.

4. Conclusion and Suggestion

In the ongoing modernization steps of the late Ottoman period, the 'early twentieth century' and the 'Pangaltı-Şişli-Harbiye axis' provide significant insights into understanding the changes in residential architecture. As a

residential area primarily for upper-middle-class families, this axis has allowed observation of the adaptation of mansions to the modernization process. Considering the examined examples, alongside the magnificent garden mansions of the Ottoman elite focused in Teşvikiye, there are also mansions belonging to Ottoman families with middle and upper economic conditions. These mansions seem to have adapted to modern urban arrangements in two different ways; One maintains the traditional mansion-large garden relationship, where the main entrance to the mansion can be from the garden or street, often featuring an elevated front entry platform. The other, situated on a contiguous building plot, includes a small front garden accessible directly from the street and a larger garden layout between the mansion and the rear street. In addition, there are also more modest family homes with contiguous plans that do not have gardens at the front or back and are accessed directly from the street or alley. Regarding the adaptation to modern construction techniques and appearances, it appears that these mansions no longer conform to a standard architectural system. Instead, they exhibit a range of styles from Art Nouveau to National Architecture Movement, or even interpretations that do not fit any specific style. Despite the diversity in their appearances, it is clear that these mansions still retain elements commonly found in traditional mansions.

Mansions, while adapting to modern urban arrangements and construction techniques, still carry traditional references in their spatial layouts. This is because, although the culture of life is in the process of change, it does not encourage radical transformations in mansions as much as modern urban arrangements and modern construction techniques.

As indicated in the discussions, mansions with gardens still offer expansive living spaces, and changes in the space are limited to the Western influence on furnishings and somewhat freer relationships between men and women. On the other hand, it is quite difficult to imagine upper-middle-class families transitioning directly into apartment living with a single unit as a core family. Thus, within the contiguous housing fabric along straight streets, which is often associated with apartment living, there are also houses that allow for the continuation of a traditional single-family living culture. It is evident from the examples here that these houses, with their links to mansions, reflect subtypes that are related to different economic levels within upper-middle-class families. Understanding these subtypes undoubtedly requires further research into how the ongoing living culture of upper-middle-class families transformed with modernization in the early twentieth century. The survival of mansions is also tied to the sustainability of the living culture. By the mid-twentieth century, Orhan Pamuk, through his own observations, will explain the gradual disappearance of mansions within the city as a result of the disappearance of the ongoing way of life:

> "…the sorrow of the dying culture, of the fallen empire, was everywhere. The effort to Westernize seemed to me more like a frantic desire to rid oneself of the sorrowful, poignant memories of the fallen empire's possessions, rather than a genuine desire for modernization. Just as one would frantically discard the clothes, jewelry, and belongings of a suddenly deceased beautiful lover in an effort to escape their destructive memory. Since nothing strong, powerful, or new, whether Western or local, modern or otherwise,

could be built in its place, all this effort was more about forgetting the past; leading to the burning and destruction of mansions, the simplification and reduction of culture, and the arrangement of interiors as if they were museums of a bygone culture" (Pamuk, 2023, p. 68-70).

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The Role of The Architect in Disaster: Examining Proactive Approaches Through Shigeru Ban's Architectural Products

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1. Introduction

A proactive approach is the process of anticipating future adverse situations and taking measures to address them. Architects, with their aesthetic and functional design skills, can play an important role in reducing the impacts of disasters, increasing the resilience of communities. This integration is the key to building a disaster-prepared society. In this context, the active role of architects in pre-disaster planning and design processes is critical to increase the resilience of communities. Gaps in pre- and post-disaster planning and design are an important problem that the field of architecture is slowly becoming aware of. Although architects were initially reluctant to respond to disaster management needs, their involvement is increasing (Joshi et al., 2020). In recent years, professionals working in the private sector and large firms have contributed to the development of innovative and sustainable construction methods, land use planning, environmental management and shelter practices in disaster areas. This has led to a common understanding of bridging the gap between short-term emergency needs and long-term sustainable recovery. Architects and the construction industry have an important role in environmental health and safety and disaster management (Joshi et al., 2020, Özdoğan & Güney, 2016). This role includes a variety of activities designed to exert control over emergencies and help individuals at risk to recover from or protect themselves from the adverse effects of a disaster. Architects' contribution to hazard risk reduction is important. However, the literature on natural disaster mitigation for the architectural profession remains inadequate. By preparing for potential disasters, communities can reduce the impacts of hazards and thus minimize the need for

reconstruction. When risks are addressed in advance, the likelihood of damage is reduced. Knowledgeable and trained architects can play an important role in increasing public education and awareness by communicating the risks faced by owners and demonstrating how these risks can be managed through specific building mitigation methods. Architects can take proactive measures against disasters by conducting risk analysis, developing resilient designs, adopting sustainability principles and collaborating with local communities. They can also increase the preparedness of the society against disasters through education and awareness-raising activities. This study emphasizes that the role of architects in disaster management is not only limited to the construction of physical structures, but also contributes to social solidarity and reconstruction processes. At this point, the hypothesis of the study is that architects can increase the resilience of communities by taking proactive measures against disasters and providing effective architectural solutions in post-disaster reconstruction processes. Shigeru Ban's work provides an important example that supports this hypothesis. Shigeru Ban's work was selected for this study not only because he has developed fast and effective solutions to post-disaster housing problems, but also because he has realized these solutions using low-cost and environmentally friendly materials. Ban has made a significant impact on a global scale by extending his contributions to architectural practice and social responsibility projects internationally. In addition, his commitment to the principles of environmental sustainability and prioritizing social responsibility through modular structures are the cornerstones of his architectural approach. Developing innovative approaches is one of the

elements that make him unique in the world of contemporary architecture, and for this reason, Shigeru Ban's projects are a great source of inspiration in terms of both aesthetics and functionality.

1.1. Disaster and Architecture

Disasters include both natural and man-made events, such as earthquakes and hurricanes, as well as wars, floods, civil unrest, nuclear accidents, economic recessions and some urban renewal projects (Joshi et al., 2020). More generally, a disaster is a situation that damages the areas where people live, work and play. Natural disasters, such as earthquakes, landslides, forest fires, hurricanes, hurricanes, oil spills and floods, are events that lead to severe economic, environmental and human consequences. Every year, thousands of people lose their lives, millions are left homeless and there are huge economic losses. It is estimated that a new major disaster occurs every three days, which means that local and regional authorities have to manage many emergencies every year. At this point, architectural design can prevent or reduce the destructive consequences of disasters on structures (Özdoğan & Güney, 2016). After a disaster, the role of architects is not limited to repairing and rebuilding damaged structures. They also plan to create more resilient and sustainable living spaces, taking into account the needs of communities. In this context, new designs need to be developed in post-disaster reconstruction processes, taking into account social needs and environmental factors (Kahn, 2018). The proactive role of architects in disaster prevention and preparedness processes is of great importance to increase the resilience of communities. First, architects can identify potential hazards by assessing the risks of the areas where the projects will be located and shape their

designs according to these risks. By adopting resilient design principles, they can increase the resilience of the building against disasters through material selection and construction techniques. It is also the responsibility of architects to develop environmental designs that will reduce the effects of natural disasters by taking into account the principles of sustainability. Furthermore, it is an important role of architects to collaborate with local communities to understand their needs and encourage their participation in disaster preparedness processes. Raising public awareness of disasters by organizing training and awareness-raising activities and taking emergency plans and evacuation routes into account in their designs are also critical elements. Finally, the use of innovative materials and flexible design principles increase long-term resilience by making it easier for structures to adapt to future changes. For these reasons, the proactive role of architects in disaster prevention and preparedness is vital for societal safety and resilience. The importance of architecture and design in disaster management is not only the protection of physical structures, but also the strengthening of social solidarity and positive impacts on the psychological well-being of communities. Well-designed spaces help communities become more resilient to disasters and accelerate post-disaster recovery processes (Smith, 2020). Architects can develop solutions to reduce disaster risks by considering the principles of safety, resilience and sustainability in the design of buildings and infrastructures. In this process, structural engineering knowledge and elements such as material selection and construction methods are of great importance. The role of architects is to understand the complex needs of clients and users of building projects and collaborate with interdisciplinary teams to develop

designs based on these needs. However, the role of architects in disaster situations may vary at different stages of the event (Lloyd-Jones & Kalra, 2010). Architects have a responsibility to protect public health, safety and welfare as a matter of professional ethics and training. However, the lack of adequate coverage of architects and architectural knowledge within the scope of "disaster support programs" has long been criticized by members of the American Institute of Architects (AIA). In line with these criticisms, AIA published a handbook on how architects can be used more effectively in disaster situations and summarized the responsibilities and roles of architects in this process. Figure 1 shows the role of the architect in post-disaster phases.

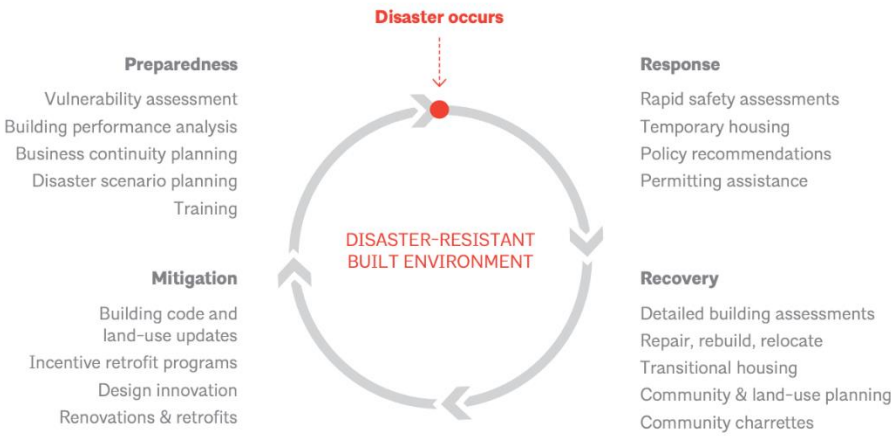

Figure 1. The role of the architect in disaster management (AIA, 2017)

Ünlü (2012), in his article titled "The role of architect in disaster management and a risk assessment model", emphasizes that contemporary disaster management consists of four basic phases; Preparation for Disasters, Taking Precautions Against Disasters, Response and Recovery. The role of the architect in each of these phases is of great importance in

terms of disaster management and social awareness (Ünlü, 2012). In the Disaster Preparedness phase, the architect plays an important role in identifying risky areas and determining settlement risks. Providing coordination in interdisciplinary risk analysis and developing strategies are among the main duties of the architect. In the response phase, the architect takes an active role in determining the location of logistic bases, temporary shelter designs and structural reinforcement. In this process, it is also the responsibility of the architect to ensure coordination between engineering disciplines. In the intervention phase, the architect oversees infrastructure and superstructure activities in logistics bases and temporary shelter areas and intervenes when necessary. In the recovery phase, the architect takes quick measures to meet the needs of the disaster victims and overcome the deficiencies of the temporary shelters. This process plays a critical role in ensuring the transformation of disaster victims to permanent life. In conclusion, it would not be wrong to say that the contribution of the architect in each phase is vital for the effectiveness of disaster management and social resilience. In addition to their technical expertise, architects are in a unique position to provide a holistic approach to community resilience planning. Natural, social and building systems are intertwined, and architects have the ability to incorporate these system components into the design process and create linkages between different stakeholders. This integrated approach plays a particularly important role in disaster mitigation, preparedness and recovery (AIA, 2017). The role of architects in disasters focuses on meeting the needs of communities and increasing resilience. According to Lloyd-Jones et al. (2009), the circle of risk management and responsibility in disaster has 7 stages. The role of the

architect as an expert in these stages starts with assessing the building techniques of the community and historically significant buildings. They identify the needs of disaster-affected communities, plan shelter and advise on the use of existing buildings. It is also an important task to design structures such as health facilities for groups that need special housing conditions. Architects participate in research and advise on the selection of building materials and technology in the repair and reconstruction processes. They conduct planning studies in accordance with local culture and adapt the design of temporary shelters to social and religious traditions. They train volunteers in the design and construction processes and supervise and advise during the construction phase. Finally, they undertake life cycle studies of new buildings, aiming to make safe and sustainable changes (Lloyd-Jones et al., 2009). These processes are carried out to increase the resilience of communities and support post-disaster reconstruction.

It is of great importance to re-plan new buildings with lessons learned from previous disasters in line with the "build better" strategy. However, various evaluation criteria and expert knowledge are needed to understand the condition of existing structures. Combating disaster is a process that requires interdisciplinary effort and cooperation. The evaluation of buildings to be used for temporary shelter involves different fields of expertise in addition to architecture and design knowledge. In this context, involving individuals specialized in the field of disaster from various professional groups such as urban planners and engineers in the process would be an effective strategy to increase knowledge sharing. In countries like Turkey, which frequently encounter disasters, training experts in the

field of disaster and eliminating the knowledge deficiencies of related professional groups is an important issue that needs to be emphasized. (Idemen, 2022). The spatial awareness, aesthetics and design skills that good architects bring to projects offer significant value to psychologically distressed individuals and communities, even in unexpected environments. While providing emergency shelter is a primary need in the aftermath of a disaster, aesthetics and psychological healing play a major role in reconstruction and settlement processes (Charlesworth & Fien, 2022). There are many works from around the world that demonstrate the important contributions of architects in disaster management and building resilient communities. Architects have responded to various disasters in the last century; for example, five different plans were developed to rebuild London after the Great Fire, while Japanese architect Shigeru Ban designed housing for earthquake victims in Nepal using rubble and recycled cardboard (Joshi et al., 2020). As Shigeru Ban stated in his 2014 Pritzker Prize acceptance speech, "Architects are usually busy building for privileged individuals, so they don't build temporary housing... I am not against building monuments, but I think we can contribute more for the public." The work of innovative architects such as Shigeru Ban is an important example in this context. Shigeru Ban not only offers fast and effective solutions to post-disaster sheltering problems, but also realizes these solutions with low-cost and environmentally friendly materials. Ban has made a significant impact on the international arena with his social responsibility projects and architectural practice, prioritizing social responsibility with modular structures adhering to the principles of environmental sustainability. His innovative approaches make him unique

in contemporary architecture and his projects constitute an inspiring source in terms of both aesthetics and functionality.

At this point, it is necessary to introduce Shigeru Ban, whose projects are analyzed within the scope of the study, and to explain his architectural approach.

1.2. Shigeru Ban

> "People die not because of earthquakes but because of collapsing buildings.
> This is the responsibility of every architect. But somehow people have to find a roof over their heads
> when they need any temporary structure, including a roof,
> We are never there, we are too busy with our privileged clients."
> SHIGERU BAN

Shigeru Ban is a prominent name in the field of architecture with his innovative and humanitarian approaches. The most prominent feature that distinguishes him from other architects is that he prioritizes social responsibility with the sustainable and modular structures he developed for post-disaster shelter solutions. As a Japanese architect known for his recyclable, sustainable designs and humanitarian aid projects (Kaptan, n.d.; Özcan et al., 2021), Shigeru Ban designed shelter systems that provide solutions to post-disaster shelter problems. Shigeru Ban Architects, founded by Ban, designs various structures such as museums, office buildings, residences and temporary housing for disaster relief around the world. In his designs, he emphasizes participatory production processes, taking into account the material supply, climatic conditions and local culture in the regions where disasters occur. His temporary shelter

projects in countries such as Japan, Haiti, China, India, Rwanda and Türkiye have contributed to his international recognition and the Pritzker Architecture Prize. The paper shelter method he developed provides a fast construction process and reduces costs. He also utilized the talents of his own students by involving them in the project design and construction stages. Ban inspired his colleagues with the Voluntary Architect's Network (Özcan et al., 2021). Shigeru Ban has won many awards in the field of architecture. These include the Pritzker Architecture Prize in 2014 and the Kyoto Prize in 2019. These awards recognize his contributions to architectural practice and social responsibility projects internationally (Kaptan, n.d). Shigeru Ban is an architect who stands out with his prominent features in disaster relief efforts. One of his most prominent features is his use of low-cost and environmentally friendly materials such as paper and cardboard to provide fast and effective shelter solutions. By designing lightweight and portable structures, he creates structures that can be quickly erected in emergencies. It also considers the needs of local communities and encourages their participation in its projects. By using open prefabricated systems, it speeds up the construction process and provides flexibility. It offers alternatives to traditional building methods with innovative and creative designs. While combining aesthetics and functionality, it also adheres to the principles of environmental sustainability (Kaptan, n.d.).

Shigeru Ban's work shows how architects can take a proactive role in disaster management and increase the resilience of communities. At this point, Cardboard Caathedral, Onagawa Container House, paper log house and Paper Partition System projects will be explained.

1.2.1. Cardboard Cathedral

One of Ban's most remarkable disaster relief projects is the Cardboard Cathedral built in 2013. It serves as a new symbol of strength after the 19th century Anglican church in Christchurch, New Zealand, was destroyed in the Christchurch earthquake (magnitude 6.3) on February 20, 2011. Anglican Church authorities commissioned Shigeru Ban to design a temporary structure to replace the damaged church. Ban undertook the project as a donation and made no financial demands. The building has a simple structure of 60 cm diameter cardboard tubes coated with waterproof and flame retardant polyurethane and has a capacity of 700 people (Taşpatlatan, 2013).

One of the most architecturally striking features is that the main structure of the building is made of cardboard tubes with waterproof and flame retardant coating. These materials are characterized by their lightness and environmentally friendly properties. The Cardboard Cathedral has a modular design, which speeds up the construction process and allows the structure to be easily assembled and disassembled. The interior is flooded with natural light and a bright atmosphere is created with large windows and openings. In addition, the building, inspired by gothic architecture, blends modern materials with traditional architectural elements, symbolizing social solidarity and rebirth despite being a temporary structure. With a capacity of 700 people, the Cardboard Cathedral, which can be used for both worship and social events, offers a functional and aesthetic solution that responds to post-disaster needs by exhibiting an innovative approach in architecture (Shigeru Ban Architects, n.d.).

1.2.2. Onagawa Container

The earthquake that struck Japan in 2011 caused massive destruction and left many people homeless. The earthquake caused severe damage, especially in the Tōhoku region, causing buildings to collapse and infrastructure to be damaged. This created an urgent need for shelter and the provision of temporary accommodation became essential. Due to the inadequacy of the accommodation provided, Shigeru Ban Architects designed a three-story temporary settlement using shipping containers, including some furniture. In addition, many people needed to stay in a safe place, meet their basic needs and receive psychological support after the disaster. Therefore, creating temporary accommodations became vital to quickly meet the shelter needs of disaster victims (Gülsün, n.d.). The buildings, which are formed by stacking the containers in a checker pattern on the facade, are intended to be used as permanent housing when necessary. The spaces between the buildings are organized to serve public functions; the settlement also includes a market and a café covered with awnings to meet the daily needs of disaster victims. The dwellings offer three different plans of 19,8 m² for one or two people, 29.7 m² for families of three or four, and 39.6 m² for families and groups of more than four people. In collaboration with Voluntary Architects Network, around 200 volunteers designed cabinets and shelves to create additional storage spaces for each dwelling (Gülsün, n.d.).

1.2.3. Paper Log House

Designed for the 1995 Kobe Earthquake victims, the criteria for temporary housing required cost-effective structures that could be built by anyone, had adequate insulation and aesthetic appearance, and could be easily

dismantled and recycled afterwards. In response to these needs, a log house model was developed with a foundation of beer crates filled with sand, walls made of paper tubes, and a roof and ceiling made of tent membranes (Shigeru Ban Architects, n.d.). The Paper Log House is a small one-story dwelling with a simple design with a sloping roof and open interior layout. Its walls are constructed with paper tubes filled with sand and stacked vertically, creating a solid structure while providing wind and earthquake resistance. The house is designed to be easily assembled and disassembled and can be moved to different locations with minimal effort. Its lightweight construction makes it suitable for emergency housing and temporary solutions, while demonstrating the potential of paper as a sustainable and viable building material. Shigeru Ban's design is innovative in that it can be built quickly using local and recyclable materials, without the need for heavy machinery or skilled labor. The shelter's simple and modular structure allows for customization according to different family sizes and needs, while its waterproof roof provides protection from the elements.

1.2.4. Paper partition system

The September 6, 2018, Hokkaido East Iburi earthquake with a maximum seismic intensity of 7 caused extensive damage, especially in the Iburi region of Hokkaido. Between September 15 and September 24, the Volunteer Architects Network and Keio University SFC Shigeru Ban Laboratory built a simple partition system using paper tubes and cloth at evacuation centers. This system aims to create the privacy and space needed after the earthquake. Made of recyclable materials, these temporary shelters can be set up quickly and can be dismantled and moved to different areas when needed. By adding white curtains to the docking system, the

space is made more distinct and thus privacy is ensured. The Global Forum on Understanding Risk (Kaptan, n.d), organized by the World Bank in Japan in 2024 with the same system, was held at Acurea Himeji in Himeji, Hyogo Prefecture on June 16-24, 2024. The forum featured exhibitions by government officials, civil society organizations, businesses and professionals working in the field of disaster management. The booths were created using the Paper Partition System (PPS), which is usually constructed with a 90-degree grid layout, but for the first time at this event a 60-degree grid layout was partially adopted (Shigeru Ban Architects, n.d.).

2. Material and Method

In the research, Shigeru Ban's works provide a significant example supporting this hypothesis; Ban offers rapid and effective solutions to post-disaster housing issues while utilizing low-cost and environmentally friendly materials. His projects emphasize the critical role of architects in both taking proactive measures and in the reconstruction processes. In this context, a literature review and case study analysis were conducted to examine Ban's projects in detail. First, the relationship between disaster and architecture was explained, followed by a literature review on Ban's projects, the materials he used, his design approaches, and community involvement, assessing the impact of these projects on disaster management. As a result, conclusions were drawn regarding the role of Ban's works in proactive measures and reconstruction processes.

3. Findings and Discussion

Shigeru Ban's Cardboard Cathedral is constructed from recyclable cardboard materials, promoting the efficient use of natural resources while

reducing environmental impacts. Thanks to its modular design feature, the building components can be easily assembled and modified as needed, providing flexibility to the project. The choice of lightweight and accessible materials like cardboard not only lowers costs but also supports local production. This structure, which allows for rapid construction, can be quickly implemented in emergencies, offering a significant advantage, especially for post-disaster needs. Its flexibility and adaptability enable the building to be easily tailored to various activities and uses. In terms of durability, it has been shown that cardboard structures can withstand certain conditions for a period when properly designed and maintained, making them a temporary yet robust solution. The social connectivity aspect is facilitated by the design of the building, which offers open spaces that encourage social interaction and areas suitable for community events. Finally, in terms of meeting basic needs, the Cardboard Cathedral provides a functional space that allows communities to come together and address their religious and social needs.

The Onagawa Container House features many important characteristics that reflect Shigeru Ban's architectural philosophy. Firstly, it adopts an environmentally friendly approach by utilizing recyclable materials within the framework of sustainability principles. Thanks to its modular design, different housing types can be created by assembling containers, and the structures can be easily expanded when necessary. The use of local materials not only reduces costs but also supports the local economy. Additionally, since container structures can be constructed quickly, they offer a significant advantage in meeting urgent housing needs. With their flexibility and adaptability, they provide various housing plans for

different family structures and groups, creating versatile living spaces. In terms of durability, containers provide a robust structure that makes them resistant to natural disasters. The design promotes social connectivity by enhancing social interactions through shared spaces and public functions, while the organized interiors cater to the basic needs of disaster survivors, offering a safe and comfortable living environment.

The Paper Log House aims to reduce environmental impact by using recyclable materials. Natural materials, such as paper tubes, can be sourced from sustainable resources and used in construction without harming the ecosystem. Thanks to its modular design, the Paper Log House can be easily customized according to different sizes and needs. This structure offers rapid housing solutions by allowing its components to be produced separately and assembled quickly. The use of locally sourced materials not only reduces costs but also supports the local economy. This approach minimizes the environmental effects of the construction process and enables communities to utilize their own resources. The design of the Paper Log House allows for quick construction, which is a significant advantage for emergency housing and temporary shelter solutions; living spaces can be created in a short time when needed. This structure is designed to adapt to various climatic conditions and user needs, making it a flexible housing solution. Its ability to be used in different locations and scenarios enhances its versatility. The durability of paper tubes provides resistance against wind and earthquakes, which is particularly critical for post-disaster housing solutions. Additionally, it has the potential to create social spaces that encourage community gatherings. Shared living areas enhance interaction among individuals, strengthening social bonds. These

features demonstrate how the Paper Log House presents an innovative approach within modern architectural understanding.

The Paper Partition System embodies important features such as sustainability, modular design, and the use of local materials within architectural understanding. Composed of recyclable paper tubes, this system demonstrates an environmentally friendly approach by reducing ecological impact. Its modular design allows for easy customization according to needs and applicability in various areas. The use of local materials not only lowers costs but also supports the local economy. The rapid construction capability offers quick solutions in emergencies or temporary housing needs, enabling the creation of living spaces after disasters. In terms of flexibility and adaptation, its ability to adjust to various climatic and usage conditions further enhances the functionality of this structure. Due to its durability, it exhibits resistance to wind and seismic activities, providing a safe living environment. Shared living spaces that strengthen social connections increase interaction among individuals, while being designed to meet basic needs contributes to users living comfortably and securely.

The Paper Partition System, Paper Log House, Cardboard Cathedral, and Onagawa Container House share common features such as sustainability and modular design, while also exhibiting some differences. All these structures aim to reduce environmental impact by using recyclable materials, with the Paper Partition System and Paper Log House highlighting the flexible use of paper tubes. The Cardboard Cathedral, as a larger-scale structure, offers expansive spaces for community events. The Onagawa Container House stands out for its rapid construction and

durability through the reuse of containers, which is a critical advantage, especially for post-disaster housing. While all four structures have rapid construction capabilities, the Paper Log House and Paper Partition System can be set up more quickly and easily in emergencies. In terms of flexibility and adaptability, the Paper Log House and Cardboard Cathedral respond to various needs by adjusting to different climatic conditions, whereas the modular structure of the Onagawa Container House allows it to be used in various locations. Regarding social connectivity, the Paper Partition System and Cardboard Cathedral create common areas that enhance social interaction, while the other structures offer more individual living spaces. In terms of meeting basic needs, all structures provide shelter and security, but the Paper Log House and Paper Partition System place greater emphasis on user privacy.

4. Conclusion and Suggestions

Shigeru Ban's works demonstrate how architects can take a proactive role in disaster management and enhance community resilience. He is known for his disaster work because he develops innovative approaches to quickly and effectively address the needs of victims following natural disasters. His projects highlight the social and humanitarian dimensions of architecture in the post-disaster reconstruction process. Therefore, Ban's contributions extend beyond physical structures; they also assist communities in recovering and gaining resilience. In this regard, his significance in disaster relief efforts is substantial and serves as an inspiring example in the field of architecture. The examined structures show that it is possible to develop rapid, sustainable, and economical solutions in emergencies. The use of recyclable materials contributes to

reducing environmental impacts, while modular designs offer flexibility and adaptability. Each structure creates common areas that promote social solidarity while providing functionality to meet individuals' basic needs. These examples reveal that architecture possesses the capacity to protect and rebuild human lives, going beyond mere aesthetics and functionality. Architects can address the urgent needs of displaced individuals after disasters by designing temporary shelters that can be quickly constructed and supported with local materials.Common architectural design approaches that stand out in post-disaster shelter designs and humanitarian aid projects include: collaborating with local communities to identify disaster risks, using innovative and sustainable construction methods to enhance the resilience of buildings and infrastructure against disasters, adhering to sustainability principles in energy efficiency, water management, and material selection, developing designs that ensure the flexibility of buildings and infrastructure to reduce the risk of damage in potential disasters, providing education on disaster preparedness and risk reduction in the community to raise awareness, working with local governments to develop policies for disaster management and emergency plans, and designing modular structures and temporary shelter solutions for rapid post-disaster response.

These approaches can enable architects to play a significant role in disaster management and contribute to making communities safer and more resilient. Additionally, designs that combine aesthetics and functionality can aid individuals' psychological recovery. Structures that include natural light, green spaces, and pleasant views help reduce stress and anxiety, facilitating community recovery. In conclusion, post-disaster architecture

plays a critical role in helping communities bounce back through innovative and sustainable approaches. This requires architects to be more mindful of their environmental and social responsibilities in future designs. Furthermore, it has been observed that the role of architects in disaster management should not be limited to the construction of physical structures but should also contribute to social solidarity and reconstruction processes.

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The research complies with national and international research and publication ethics. Ethics Committee approval was not required for the study.

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All authors contributed equally to the research. 1st Author %50, 2nd Author %50 contributed. There is no conflict of interest.

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Historical Development of Orchestral Layout

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1. Introduction

Music is the factor that ensures cultural unity (Kang, 2019). Pope Gregorius (Gregorius the Great, 540- 604 AD), knowing this feature of music, put music into a religious role and made people gather around the church for centuries (Say, 1997). However, over time, music spread first among the nobility and then among the people. Thanks to music, interaction between people developed (Howard and Angus, 2006). Performing arts and plays were created (Aydın O'Dwyer and Gürcan, 2021). There has been interaction between performers and listeners. The performance of music has changed completely. Monophonic melodies began to transform into polyphonic melodies (Say, 1997). Accordingly, the variety and number of instruments increased. The basis of the orchestra is polyphony. Polyphony is realized not only with the types of instruments but also with the works composed. Polyphonic melodies have been created even in solo works, as more information has been obtained about the sounds that can come out of an instrument and people have seen what sounds are created when instruments are played in different ways.

Both making and listening to music helps to establish relationships with the environment (Işıktaş, 2018). It enables the development of community values and the formation of individual identity (Arpacıoğlu, 2012; Bonde, 2011). Music preferences are also directly related to musical perception. Music is a phenomenon that shapes the individual and the individual shapes music (Makris and Mullet, 2003). The history of music and the history of humanity have shown a process of development together. Developments in music have affected instruments and performing arts. Orchestra was established thanks to the developments in music. Orchestra

is a musical ensemble formed by various instruments coming together and following certain notes (Randel, 1969; Say, 2002). Orchestras are living organisms that interact with variability (Bibu et al., 2018). It is a complex organization consisting of trained musicians, conductor staff, management staff, and board of directors (Hunt, Stelluto, and Hooijberg, 2004; Khodyakov, 2014). “Orchestra” is a word of Ancient Greek origin. In ancient Greek theater, the dance area in front of the stage is called “orchestra”. In the Middle Ages, the entire stage was given this name. In the Renaissance period, it was again used to describe the area in front of the stage as in Ancient Greece (Randel, 1969).

Various levels of acoustic quality need to be ensured for both musicians and listeners (Glass Sabah, 2013). This quality can be considered in terms of space and sound (sound source). Acoustic comfort of the space is analyzed under architectural acoustics (Everest, 2001). The acoustic comfort of the sound source is analyzed under musical acoustics (Lindsay, 1966). Musical acoustics examines the sound created by the physical properties of the sound source and the variables related to the musician. While examining the factors affecting the power of sound and audibility in an orchestra: “The type of music, frequency range, musical variables (octave bands, harmonics, rhythm), instrument types, number of instruments, the way musicians play the instrument, orchestra layout, musicians' command of music, conductor's command of the orchestra” (Güran, 2008). From this point of view, the orchestra itself and the components that make up the orchestra are very effective in acoustic quality. Within the scope of this study, the development of orchestra layout is explained.

2. Material and Method

This is a compilation study. The development of orchestra placement was examined through the history of music. Historical development was examined through the development of Western music. The literature research was conducted in line with the keywords "orchestra placement", "orchestra" and "music history".

3. Findings and Discussion

Orchestra placements are analyzed through periods of music history. Music history is divided into periods based on physical and stylistic changes in musical sounds. Physical changes: It is caused by the change in the number of sounds (number of instruments), sound type and sound rhythm in music. Stylistic changes: It is caused by changes in the way of sound management or the way the sound is presented (Say, 1997).

• Change in the number of voices: The increase and decrease in the number of instruments. In music, everything that is considered a sound source is considered an instrument. The human voice is also considered an instrument, as is the piano, violin, violin. In the history of music, orchestras have generally increased in terms of the number of instruments.

• Sound type change: This includes the development of instruments and the invention of new instruments. In addition, changes in the types of instruments in music can also be considered as sound type changes. For example: There is a difference between an orchestra accompanied by a single soloist and an orchestra accompanied by a choir in terms of weighted sound type. Accordingly, they can be evaluated separately.

• Sound rhythm change: Changes in the number, value and frequency of note beats in music. It can be in the music in general or only in specific instruments.

• Change in the way sound is managed and the way sound is presented: It has changed in parallel with performing arts. Art forms that appeal to the visual and auditory senses such as opera and ballet have led to changes in the way music is used and performed.

Orchestra layout has changed over time. It is possible to list the orchestra layouts until today as “Baroque Orchestra Layout”, “Classical Orchestra Layout”, “Early Romantic (19th Century) Orchestra Layout”, “Modern Romantic Orchestra Layout (Late Romantic)”, “20th Century (Modern) Orchestra Layout”. Both the type of music, the human factor, the composer and the way the orchestra is conducted are effective in the types of settlement.

The consumption of certain art forms is linked to certain social classes. These classes are associated with social hierarchy. For some groups, artistic activities are even seen as symbolic tools (Feder and Katz-Gerro, 2012). Opera is one of these artistic activities. The orchestra developed with the birth of opera art. Opera was born in the early 17th century and is a branch of art consisting of visual and auditory performance (Kelly et al., 2023a; Yöndem, 2006). The first orchestras were used in opera art (Say, 2002). Although there can be an orchestra without opera, an opera cannot be performed without an orchestra. Therefore, the birth and development of opera has affected the orchestra (Bilmez, Diri, and Arpacıoğlu, 2023). The art of opera was born in the early 16th century. The birth of opera took place in Italy. The first operas were performed in Florence and Rome

(Mimaroğlu, 1970). In the operas of this period, the play (visual effect) outweighed the music, and the music was accompanied more melodically. It was based on the search for freedom brought by the Renaissance. It was created by composers who wanted to add more drama to music. Opera emerged as the art of the nobility. Its descent to the public level coincides with the Baroque period (Ulusu, 1994).

3.1. Baroque Period (1600 – 1750)

The Baroque period is an art style formed by the re-empowerment of science and art after the Renaissance. It forms the basis of today's European culture in many areas. It symbolizes the aesthetic understanding of the nobility between the baroque, romantic and classical periods. The basis of the developments in music, instrument and orchestra was also laid during the Baroque period. (Sachs, 1965). Baroque period music usually progresses over the bass. Riemann: "Baroque is the age of continuous bass." (Michels, 1994; Say, 1997). Schreiber first invented double bass and trombone, then counter bassoon. One of the most important features of the Baroque period is the meeting of art with the public. Professional musicians came together with the public. During this period, the public began to be interested in instruments. Stringed instruments attracted the attention of the public the most. In this way, the number of string instrument musicians increased (Say, 1997). The foundations of musical writing (notation) were laid in this period compared to its current form. After Baroque art, the Rococo era began. Rococo maintained Baroque patterns but made it more sophisticated. From the point of view of music, the beauty of the hall and the stage where the music was performed came to the fore rather than its foundations. For this reason, it did not leave a

trace that could be a different period in musical terms (Say, 1997). The orchestra understanding in the Baroque period is quite primitive compared to today. The music was played according to the musician who played the instrument. (Musicians are usually people who can play multiple instruments.) For this reason, the orchestra placement could not always be positioned in the same way. Giovanni Gabrieli, the nephew of Andrea Gabrieli, one of the famous composers of the period, wrote a special sonata for two instruments he constantly used: “Sonata Pian e Forte”. This sonata has a special place in the history of music because it cannot be performed without certain instruments. It is performed with a zink (or cornette) and three trombones for the primary ensemble, with a viola and three tormbons for the secondary ensemble. In this way, it contributes to laying the first foundations in orchestra formation (Bilmez and Arpacıoğlu, 2023; Say, 1997).

Opera has gained importance. Sopranos and bass sounds (instruments) came to the fore. Montreverdi played a major role in the development of Baroque opera. In Montreverdi opera, the orchestra started to play independent music rather than accompanying melodies. He even added solo sections for some instruments. These innovations have given the Baroque Opera a new groove. This is not the only innovation Montreverdi has made. The orchestral placement of the Montreverdi Opera is unique (Altar, 1993). Although the opera was born ten years before Montreverdi, it is Montreverdi's “Orfeo”, which is considered by music historians as the first opera (Altar, 1993; Hodeir, 1994). Towards the end of the Baroque period, instrumental music developed in operas. Some of the works still exhibited today were composed during this period (Mimaroğlu, 1970).

Ballet emerged in this period. In the Baroque period, ballet was seen as a street dance. It originated in Italy and France. After being exhibited on the street for half a century, it was exhibited for the first time in a palace in France (Aydın O'Dwyer and Gürcan, 2021).

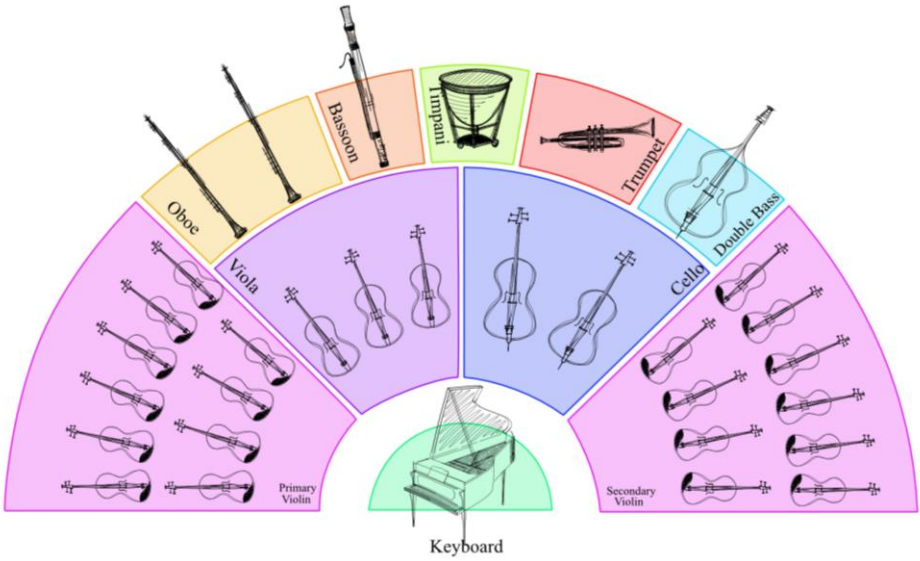

Figure 1. Baroque Period Orchestra Layout (Bilmez, 2023)

The typical orchestral placement used in the Baroque period is shown in Figure 1. The baroque period orchestra was led by a harpsichord musician. The keyboard is an instrument featured in most works. The most important reason for this is that it has a wide frequency range and allows both rhythm and melody to be played at the same time. Even if there are no other musicians in the orchestra, the harpsichord sound can give a feeling of fullness in the space and music. In addition, there is a belief that the musician who can play the keyboard can lead the orchestra at the same time. The direction of the keyboard (the direction of the musician) is towards the orchestra. Leadership situations have not yet occurred within

the instruments themselves. It was common for a musician to play multiple instruments. In the absence of a keyboard, the orchestra conductor led the orchestra (Güran, 2010).

Figure 1 The layout in shows the layout of the orchestra when it was on stage. The strings are positioned closest to the conductor (harpsichord). The violins are placed to the right and left of the orchestra to have a balanced sound propagation. The rhythm elements of the orchestra are placed in the farthest distance from the audience. The structural weight of the orchestra is obviously in the strings. The orchestra pit emerged with the influence of opera art. The orchestra pit was built to ensure the continuity of visual communication between the audience and the stage in cases where the stage (performance area) is used for a visual show. Orchestral pits were used in arts such as opera, ballet or chorus (Ballet and chorus could be performed without an orchestra). In the Opera, it is very important for the singer on the stage and the musician in the orchestra pit to perform the music in a balanced way. The conductor plays a major role in ensuring the balance between them. The location of the orchestra pit and the management style of the conductor are very important in terms of the quality of the opera (Parati, Prodi, and Pompoli, 2007). With the spread of opera and ballet, the need to remove the orchestra from the stage arose.

In the late 17th century, musicians began to prepare concert repertoires where compositions would be performed in various styles due to commercial and public influences (such as the demands of the sponsor). His repertoires included: Opera, oratorio, song, solo, overture, symphonic music (Weber, 2001). Depending on the type of music, there have been

cases where various musicians left the stage, were added, or the musicians played different instruments.

3.2. Classical Period (1750 – 1825)

Music was seen as a commercial product. Everyone who had access to the musical instrument thought that they could make music and there were serious problems in the quality of the music. A concept called "Real Musician" has emerged. Contrary to previous centuries, every musician specialized in a musical instrument during this period. In this period, the understanding of composition changed. Composers made compositions expressing feelings and thoughts instead of composing in an orderly manner. For this reason, the works are much longer than previous periods. The number of works of classical period composers is less than the number of works of previous period composers (Say, 1997). New forms developed in music in the classical period. The stasis in Baroque music has been replaced by a music with a dynamic rhythm. The new musical structure is more symmetrical. Repetitions of melody are included. Accordingly, instruments have also developed rapidly. Playing techniques of keyboard and wind instruments have been developed (Say, 1997). In the classical period, it started to approach its current state. More professional musicians were trained and more concerts were given than in the Baroque period. Thanks to the economic return of this, music performance started to be performed in public halls. The people and nobles (bourgeois) were separated from each other by settlements in different locations in the same hall. Lodges, special armchairs, balconies can be given as examples. Options such as the sale of these private spaces for an entire year have been created, except for the purchase of each concert (or play).

In classicism, the understanding of opera is natural and simple. The forms of expression disconnected from real life have been removed from the opera. For example, the sudden and unexpected use of arias and their dramatic effect are not seen in operas of this period (Say, 1997). Classical period opera is lighter than the Baroque period. Both melodies and exaggerated emotional transmissions were reduced (in some types of opera, an increase in drama was observed). With the increase in the respect shown to musicians (professional musicians), the halls (opera houses) where the opera is exhibited have become more important. The effort to create an original work has also been seen in opera (Yener, 1983).

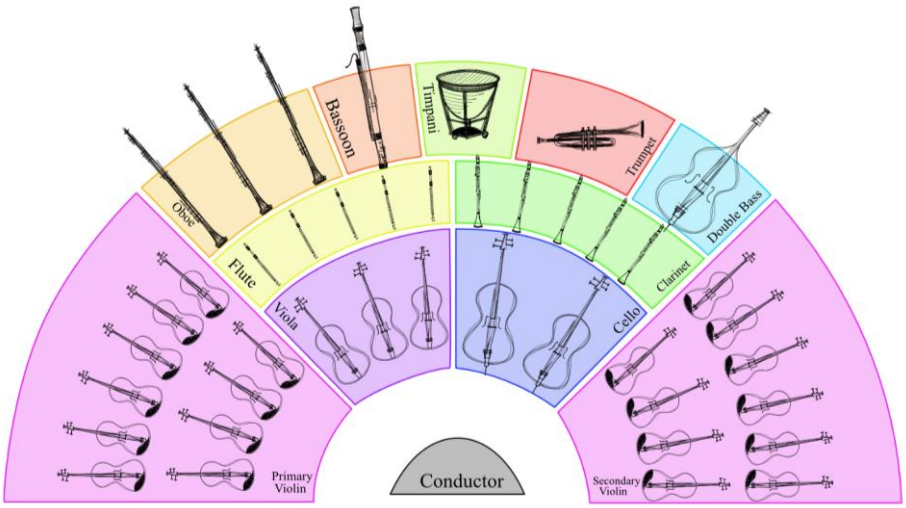

Figure 2. Classical Period Orchestra Layout (Bilmez, 2023)

The orchestra conductor replaced the keyboard. The orchestras were conducted with a scepter during this period. According to the rhythm in the music, "stop and wait" expressions, the conductor's staff hit the ground (Kelly et al., 2023a). However, orchestra conductors were not specially trained, but were selected from musicians who could play multiple

instruments. Thanks to the development of the number of instruments and playing styles according to the baroque period orchestra, orchestras have generally developed.

The layout of the classical period orchestra is shown in Figure 2. The violins are on the right and left sides of the conductor. The string family is positioned closest to the conductor. The variety of instruments has increased. The blowers are placed between the strings and the percussionists. In this period, the use of orchestra pit increased with the increase of opera. Fluffy dresses and tulle started to be used in the ballet (Aydın O'Dwyer and Gürcan, 2021). Similarly, the costumes of opera artists have been made more and more high quality and flamboyant. For this reason, the visual show came to the fore. In terms of visual comfort, the orchestra pit was separated over time, albeit initially with the audience area. The depth of the orchestra pit also varied over time. In the 18th century, orchestral pits reaching a depth of 2 meters were built (Parati et al., 2003). Ideal dimensions for orchestra pits have not yet been determined.

Musicians in the orchestra pit hear the orchestra's voice quite loudly (Zha, Fuchs, and Drotleff, 2002). This problem may cause damage such as hearing loss or tinnitus in musicians (Lee et al., 2005; Russo et al., 2013). Various studies were carried out in the 1930s and 1940s to solve the acoustic problems in the orchestra pits (Tronchin and Bevilacqua, 2021).

The classical period did not only increase the visual quality in opera and ballet. The clothes of the musicians in the choir and orchestra, the stools they use, and the decoration of the halls have also improved. Both orchestras that perform music in public and orchestras that perform music

to nobles and royalty in palaces have become more regular than in the Baroque period.

3.3. Romantic Period (1825 – 1900)

The Romantic period is an art period that develops under the influence of political events. Developments in thought and art are very effective on social events. Romantic period music is elegant and bound by rules. Emphasis and characteristic narratives expressing personal excitement are quite unique. The composers used the strokes in the music as their own fingerprints. Sudden changes or unordered repetitions are like their signatures. Some composers have gone beyond creating their own genre of music to design private halls or stages for their own operas. An example of this is R. Wagner's Festspielhaus (Festival Hall) in the famous Bayreut (Roth, 2014).

Romantic period works have a very wide area even in today's repertoire. The development of instruments and orchestra is directly related to Haydn. After Haydn, who was the first composer to shape the orchestra according to his own music, many composers renewed their orchestra in their own way. However, the disproportionate growth of the orchestras caused the sounds of the instruments to mix with each other and it became difficult to separate the sounds (Beranek, 1962). The romantic period can be examined by dividing it into two as early and late. After the Industrial Revolution, the criterion of fine workmanship was replaced by mass production. The effect of this has also emerged with light music and dance music in music. On the other hand, some composers defined themselves as music and art theorists and produced works in this direction (Say, 1997).

In this period, operas were softened and opera artists were institutionalized. However, there have been no major developments in opera and ballet music. The music designed for listening was used as ballet music. Towards the end of the period, realism began to spread in Europe and had an impact on music (Say, 1997). The influence of the Baroque period continued to be seen in the early works of the romantic period in the Opera (Whittall, 1999). Although the foundations of the "Great Opera" were laid in the Classical period, they emerged in the Paris Opera House in the 1830s. With its complex stage, talented artists and powerful choreography, it offers a dazzling opera experience. It shows the commercial and political power of the bourgeoisie. It deals with social events. It is of great importance in the history of opera (Kelly et al., 2023a). Unlike previous operas, musical dramas and play dramas are very well synthesized. Unlike traditional opera, music is not fragmented, but whole. Music between episodes is not interrupted (Hodeir, 1994).

The Romantic period is a period in which the foundations of today's architectural acoustics are laid (Weber, 2017). Acoustic planning for a concert hall was made for the first time at Stadt Casino Basel, which was completed in 1776. It is a milestone for architectural acoustics. The foundations of today's acoustic planning have been laid (Diri, 2008). The side walls and ceiling plane are designed to be sound reflective and absorbing (Long, 2006).

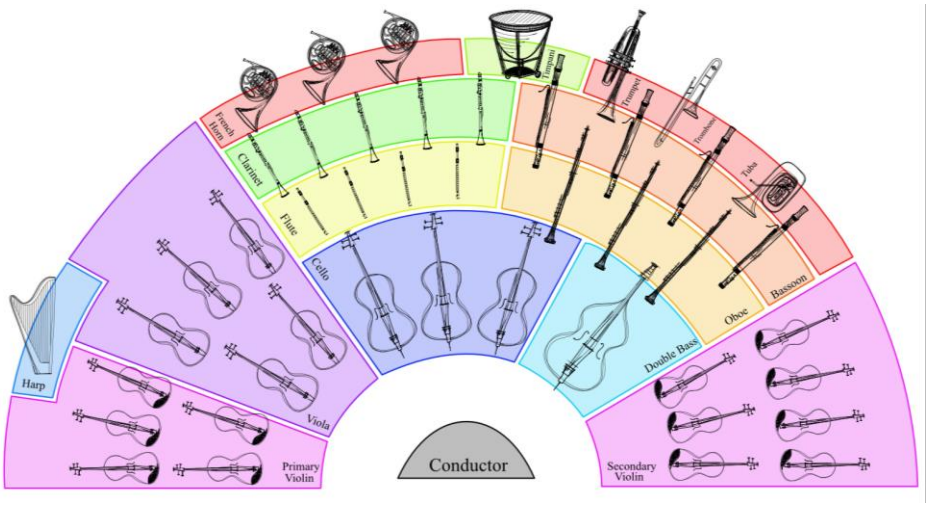

Figure 3. Romantic Period Orchestra Layout

At the beginning of the Romantic period, Professor Habeneck (violinist), who was in charge of the Paris Opera, made a change in the form of orchestra management. This change led to the emergence of the orchestra management style used today. Habeneck conducted the orchestra with a violin bow. Over time, "baton" started to be used instead of violin bow. This form of management is still used (Kelly et al., 2023b). The beginning of the special training of conductors coincides with the end of the classical period and the beginning of the romantic period. Orchestra conductors have begun to be trained in visual communication. Today, orchestra conducting students are trained to develop non-verbal communication skills such as facial expressions, gestures, and eye contact (Lorenzo de Reizabal and Benito, 2018). It is the duty of the conductor to determine modern strategies for conducting the orchestra and to react in harmony with the environment against the stimuli (Bibu, Brancu, and Teohari, 2018).

Figure 3 The settlement form in was used in the beginning and development phase of the Romantic movement. The most obvious change compared to the Baroque period is the increase in the number of instruments. New instruments are placed between stringers and percussionists. Thanks to the spread of professional music education, more musicians have started to be trained for orchestras. However, in this period, not every orchestra is so large and has a wide range in terms of the number of instruments. In the Romantic period, orchestras developed rapidly thanks to innovations such as the special training of orchestra conductors, the transformation of note writing into a more universal language, and the descent of opera and ballet to the public level.

In this period, the orchestra pit was used more frequently. R., who designed his own living room. Wagner also included an orchestra pit in his hall. The orchestral pitch in the Festspielhaus, designed by Wagner for his own works, is still referred to by Wagner's name today. The Wagner piti is in a crevice between the stage and the audience that only coincides with the bottom of the stage. The slit is open to the stage side and the sound of the orchestra is heard very loudly on the stage and less on the audience side. Therefore, on the stage, artists sing according to the sound they hear, but the audience hears the singer's voice louder and the sound of the music lower. This situation continues today (Kelly et al., 2023a). Music historians are divided on the construction of the Wagner pit. Some argue that Wagner deliberately designed this pit in this way, while others argue that he found a solution in this way because he realized that he had forgotten the area where the orchestra would be located after the hall was completed.

Concert repertoires are very important written documents in terms of examining the source of the changes in the orchestra settlements. William Weber benefited from these in his studies on the history of orchestra and music (Weber 2001, 2008). Concert programs in Europe have also shifted from complex (diversity) to simple (lean) since the middle of the 19th century (Inoue, 2018; Weber, 2001). Instead of displaying different styles in turn, a style has begun to be used (Inoue, 2018; Weber, 2008). In the same period, the mixed repertoire was continued as commercial purposes were more dominant in America (Inoue, 2018).

Another feature of the romantic period is that music, theater and various performing arts began to be exhibited in open spaces. The audience area of these open spaces can be on a completely flat floor as in the amphitheater layout. In open spaces, surfaces formed to cover the back and sometimes the sides of the stage are called crusts (Bevilacqua et al., 2022). It has names such as "orchestra shell, acoustic shell, choir shell, band shell" (Wikipedia, 2024). Thanks to this shell, the sound on the stage reaches the audience area more (Jeon, Kim, and Seo, 2012; Wikipedia, 2024). In the modern period, orchestra shells were designed inside the stage in closed concert halls. These shells were often used when the orchestra was smaller than the stage and hall volume (Jeon et al., 2012).

3.4. Modern Period (20th Century)

The modern music era is a time that has moved away from the tonal music genre used for about three centuries. There are different types of music in 20th century modern music. The anti-romantic movement that emerged in the early 20th century argued that emotions moved away from reality. Therefore, the aesthetic understanding of the period is based on realism.

Against the beauty of the dream, the ugliness of the reality is emphasized. For this reason, the contradictory and incompatible sounds in the music attract attention. The richness of tone in music has been replaced by simple, realistic and colorless elements (rhythm, melody, melody). Each country has its own music genre (Say, 1997). The impact of individuality has increased.

In the early 1900s, post-romantics saw and used opera as a means of fighting. For this reason, works disconnected from the early romantics were given. In the 1920s, 18th-century-like works were given in opera. In the 1940s, opera was used as a philosophy and a tool of thought. There has been a period as criticism, satire and comedy works are given. Towards the 21st century, different styles emerged in opera. Very contrasting styles have emerged between simplicity and extremism. The works can be individual or national, as well as written for universal purposes.

Modern period orchestras can be chamber or symphony orchestras depending on their size. Chamber Orchestra: It is a type of orchestra that usually consists of 25 musicians, with a maximum of 50 musicians. Symphony or Philharmonic Orchestra (Grand Orchestra): It is a full-size Western orchestra. The average number of musicians in the symphony orchestra is between 70 and 100 (Wikipedia, 2023). Today, there are philharmonic orchestras of memories with city names.

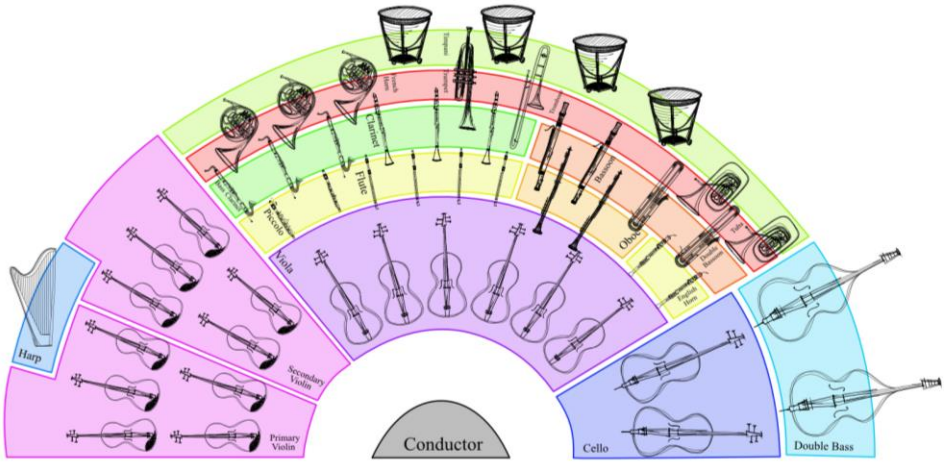

Figure 4. Modern Period Orchestra Layout (Bilmez, 2023)

The orchestras showed very rapid development with the newly added instruments in the 18th and 19th centuries. In the 20th century, this development process slowed down (Wikipedia, 2023). Instead of personalizing or improving orchestral placement, the Late Romantics turned to the emphasis and artistic purpose within music. While the primary violins were on the right in the Romantic Period Orchestra placement (in the 18th century orchestra arrangement), they were placed on the left and in front of the secondary violins in the 20th century modern orchestra (Güran, 2008). This small difference enabled the stage area to be used more efficiently and the orchestra conductor to manage the orchestra more easily (Most of the people who play wind instruments in the music part determine the starting time by looking at the primary violins). However, this layout plan caused most of the orchestra's string instrument weight to shift to the left and the high frequency average of the orchestra to shift to the left due to the violin (frequency value). In this layout, the

fact that the orchestra started to be managed with a baton and the orchestra grew quite rapidly has an effect.

Modern orchestra placement is shown in Figure 4. This settlement was used in symphony orchestras. The most obvious difference compared to the romantic period is the placement of the violins side by side. In this way, the thick-sounding instruments of the string family were placed in the empty area of the violins on the right. The number and type of blowers in the region between the conductor and the percussionists have been increased. Bassists and drummers are often thought of as the rhythm engine of the orchestra. For this reason, it is placed in the middle of the orchestra. Large orchestras have a leader in each group of instruments. Leaders can catch the beat from both the conductor and the beaters. The leader of the strings is closest to the conductor (Absil, 2008). Naturally, it also leads other groups of instruments. In today's concerts, apart from the conductor and soloist, lead violinists are also usually introduced.

The acoustic arrangement of the halls has gained more importance in the modern period. The halls with high visual comfort but low auditory comfort built in previous centuries have been reconsidered (Beranek, 2004). Auditory quality is important for both listeners and musicians. Each instrument group in the orchestra needs separate auditory comfort (Støfringsdal and Gade, 2019). This awareness has also emerged in the modern period. The structural propagation of sound has begun to be considered (Astolfi et al., 2005). Distributed sound field theory and hypotheses have been developed (Garai et al., 2016). These have increased auditory comfort for both musicians and listeners (audience) in the orchestra.

Concert repertoires were designed to accommodate different styles at the beginning of the modern era (and at the end of the romantic era). The distinction between “serious” and “light” music is less than today. Outdoor concerts allowed more diverse works to be performed than indoor concerts and plays (opera or oratorio). Due to this diversity in today's music culture, there is opposition to the concert repertoire and concert style, especially before the 1800s. The numerical expression of the mentioned variety is as follows: "Is there a difference of ten-fifteen years or two-three centuries between the composing dates of the pieces in the concert repertoire?" (Weber, 2001). Today, the choice of repertoire is determined by the chief conductors known as "music directors". Head conductors can work with multiple orchestras. They can make managerial and artistic decisions (Khodyakov, 2014).

Thanks to the spread of western music around the world, the western orchestra and its instruments have also become universal. America's role in the spread of Western music to the world is great. Americans, who see music as a commercial tool, have worked with governments to spread this music and culture among peoples who have no cultural similarity with western music. The countries where Western music enters at the latest are the Far East (such as Taiwan, Korea) and Japan (Inoue, 2018). Today, most of the traditional oriental music uses the western orchestra settlement. Gugak, which is the traditional music of South Korea (Republic of Korea), is now performed as a western orchestra (musician's clothing style and orchestra placement) (Yang et al., 2021). From this point of view, the orchestra placement Figure 4 in is universal, unlike the previous ones.

With the development of electronic systems in the modern period, instruments have begun to be seen as limited sounds and traditional (Bianchi and Campbell, 2000). Therefore, the use of electronic systems has increased. Audio recording studios are used to record and edit music. Today, orchestra recordings are also made in sound recording studios. Orchestras are usually located in a similar layout in the hall and studios (Absil, 2008). However, it is not possible for an entire symphony orchestra to fit into the studio. Instead, enough musicians from each instrument group are arranged in the studio like the layout of the orchestra in the hall. In the audio recordings where all instruments are required, the instruments can be recorded and combined electronically.

4. Conclusion and Suggestions

Periodic changes in the history of music are caused by instruments from music and orchestra. It is inseparable from sharp dates. They change and progress by transforming into each other over time. Similarly, the orchestra is not periodically separated by sharp boundaries. In general, the same layout has been used since the Baroque. Due to their musical characteristics, strings are always positioned closest to the conductor. Since the beginning of the orchestra, the string instrument group has been predominant in every period (Akyürek, 2009; Say, 2002). The reason for this is that the sound of string instruments can be combined with other instrument groups to form a sound ball (Akyürek, 2009). For this reason, the position of the strings is decisive in the orchestra placement. In all orchestral placements (even when composers design their own placements), the rhythm group (usually including percussion, sometimes wind) is positioned closest to the backstage in the middle of the orchestra.

Their positions have not been changed for both visual and auditory reasons. Another important factor in orchestra placement is the visual communication between musicians and orchestra conductors (Bazzica, Liem, and Hanjalic, 2016). Orchestra conductors actively use their body language when conducting orchestras. For this reason, it is important not to break the visual bond between musicians and conductors. In cases where the orchestras are overgrown or the stage is insufficient, some or all the orchestra can be raised from the ground with the help of various steps and platforms, as in the case of choirs. This use of the steps usually affects the orchestra placement only vertically, not horizontally. The exact date and place of the first step use in the orchestra is not known. Events that can be expressed as a turning point for orchestra placement; In the form of management, it is the transition from the wand to the baton and It is the collection of the violin family (primary and secondary violins).

The increasing growth of orchestras has caused confusion in the strings the most among the instrument groups. The number of springs and the seating arrangement have led to new rules and changes in management style. For example, the positions of the leaders in the instrument groups were directly associated with the strings group. Eye contact (line of sight) ensures that all springs can be synchronized with each other (Absil, 2008).

Orchestras that generally perform Baroque, Classical and Romantic period pieces are smaller than 18th and 19th century orchestras. 18th and 19th century orchestras are large orchestras due to the influence of Wagner and Mahler (Wikipedia, 2023). Acoustic concepts developed in the 18th and 19th centuries (Bevilacqua and Tronchin, 2021). Both musical and architectural acoustics experienced peak changes in these periods.

Calculation methods were developed, and new acoustic parameters were invented. This development process continued until the end of the 20th century. While the structural development of the orchestra was greater in the 18th and 19th centuries, orchestras generally grew in the 20th century. The most obvious change is the change in the position of the violins (Romantic Orchestra and Modern Orchestra Layout). Today, one of these two options can be applied for orchestra layout. Some conductors or symphony orchestras prefer a romantic layout. For symphony orchestras, conductors usually choose romantic style layouts.

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Author Contribution and Conflict of Interest Declaration Information

This article was written by a single author. There is no conflict of interest.

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Architectural Sciences, Spatial Design and Planning Researches

CHAPTER-11

Evaluation of the 'Material' in the Context of the 'Product Cycle' during Design and Planning Process

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1. Introduction

Architecture is a multidimensional discipline that not only seeks to balance aesthetics and functionality, but also involves complex dynamics such as environmental sustainability and social impact. In today's world, one of the most important challenges faced by architects in architectural production is the selection of materials in the design and planning processes. Material is a critical element that determines the identity of a building and space, directly affecting its aesthetic value, functionality and sustainability. Understanding the relationship between environmental impacts, economic sustainability and social values in material selection requires architects to adopt an approach shaped not only by aesthetic concerns but also by ecological and social responsibilities.

The product cycle refers to a complex process that begins with the extraction of a material from nature, continues through production, distribution, use and finally recycling or disposal. This cycle encompasses not only the physical properties of the material, but also its environmental impacts, life cycle costs and societal impacts. Nowadays, not only the appearance of buildings but also the environmental impact of the materials used in the construction process are of great importance. In this context, considering the concept of "material" from a "product cycle" perspective in the design and planning process has become a critical necessity in order to understand how architecture can be aligned with sustainability principles.

In architectural practice, taking the product cycle into account in material selection is becoming one of the cornerstones of sustainable design. Instead of acting solely on immediate aesthetic concerns when choosing

materials, architects should take responsibility for preserving the ecological balance and using resources efficiently by taking into account the life cycle of these materials. With this understanding, material selection is no longer just a design decision but also a matter of sustainability. In this context, the aim of the study is to evaluate the material choices in architectural design processes together with the product cycle stages and to reveal their contributions to the reduction of environmental impacts and the construction of sustainable structures.

In this context, the study will address material selection and its importance from a product cycle perspective; environmental, social and economic factors that should be taken into account in material selection, sustainable design practices and how tools such as life cycle assessment can be integrated will be examined. Additionally, examples of research on innovative material alternatives and the environmental and economic benefits of these alternatives will be presented. In this context, the study will emphasize that every stage of the product cycle should be taken into account in the selection of materials in architecture, and it will be demonstrated that an effective material selection strategy offers the opportunity to increase both design quality and competitiveness in the built environment and contribute to the protection of our planet.

The study will be carried out through literature review, model design and case studies. Firstly, existing literature on product cycle and material selection was reviewed, and topics such as sustainable design, environmental impacts, building & material life cycle analysis and innovative material use were discussed. This stage provided an understanding of the existing knowledge and the creation of the theoretical

framework of the model. In the light of the information obtained from the literature, a multi-stage model was designed for the product cycle and material selection. In order to test the applicability of the model, data was collected from selected architectural projects. These projects include different material selection strategies and sustainable practices. During the data collection process, project documents and technical reports were examined. The collected data were analyzed according to the determined model stages. The analysis results allow the creation of a feedback loop for the development and improvement of the model. The findings obtained can be used to increase the applicability of the model and make it more effective in design processes.

The product cycle model presented in the study covers the changes that the material undergoes starting from the production phase, throughout its life cycle and finally its transformation into waste, and each of these processes directly affects the environmental impacts of design decisions. In this context, it is thought that the use of the model created based on the obtained data will provide efficiency in terms of the producer, designer, implementer, user, environment and general economy, and in this context, will make a significant contribution to the materials sector.

2. "Material" in Architecture: Navigating the Selection & Decision Making Process

Architectural design is a process that determines the aesthetic and functional characteristics of a structure. In this process, materials are tools that transform the imagination of architects into concrete reality. Materials, which are one of the most fundamental elements that affect the aesthetic appearance, spatial qualities, general atmosphere, durability and

performance of a structure, are also necessary to ensure the structural integrity of the building. In architecture, materials stand out as a critical element that determines the character of a structure, beyond being just a building material. Materials not only create the physical existence of a building, but also shape the identity and user experience of the space.

Material selection in architecture is a critical stage that directly affects the success of architectural design by determining the aesthetic, functional and sustainable aspects of a structure. Architects shape both the physical and spiritual effects of buildings by taking into account multidimensional factors such as aesthetic, functionality, sustainability and technological innovations in material selection. In this context, the material selection process is at the center of architectural practice, allowing sustainable and innovative structures to be designed. Architecture comes to life with the right material; therefore, material is the cornerstone of every design.

The selection of correct materials and their effective use play a crucial role in shaping design. Materials have a profound impact on the aesthetics, functionality, sustainability and experience of a building. By embracing materials as expressive elements, exploring sustainable material innovations, adopting material-driven design methodologies, and studying exemplary projects, architects can push the boundaries of creativity and create architectural spaces that are visually captivating, functionally efficient, and environmentally responsible (Biçer & Erdinç, 2023).

3. Dynamics of the "Product Cycle": Knowledge-Based Strategies

The comprehensive and multifaceted structure of architecture, its interactive and dynamic nature that becomes more complex due to rapid social changes and includes various data from different fields, requires the

process to be designed based on information, and in this context, research and scientific studies aimed at achieving the desired or expected result by defining and solving problems to meet the requirements have gained importance (Erdinç & Biçer, 2020).

Before starting research, it is important to define the problem well and create an assumption, determine the requirements and working method, and reach a conclusion. In addition, in order to ensure that the studies to be conducted are valid and continuous, it is necessary to conduct research systematically according to the defined problem and assumption. In this framework, within the system approach, it is important for the system to have more than one abstract or concrete component, the relationships between the components that connect the system to each other, the whole that performs the desired function formed by these components, and the purpose and goal of this whole in terms of its functioning (Balanlı & Öztürk, 1997; 2006). In this context, the "model", which is mostly used for problem solving in many disciplines, is one of the most effective methods suitable for control with feedback.

The main reason for using the system is to examine, determine the principles and make arrangements in line with the objectives in order to reach the desired result. However, since it is not always possible to examine the real system and determine its principles, a tool is needed that will express the system with all its features that are important for the objectives and provide the best understanding of the system and the system's process. This tool is the "model", which is the abstract form of the system developed for the purpose of understanding the system and representing the reality (Esen, 1998; Saylı, Mengenci & Bürcü, 2015).

Algorithm for creating a model (system solution); Determination of components and relationships between components by making observations and research on the system; Formulating models related to components and the system by using the information obtained as a result of observations and research; Testing the model instantly and in time; Making feedback to renew the observations in case the model does not describe the system correctly and/or adequately; Implementing the model in case it reflects the system correctly and adequately; Finalization of the study can be listed as follows (Biçer Özkun, 2011).

In this context, the life cycle was used while designing the "product cycle" model based on the model creation principles in the study, but since the created cycle is based on the "product", it was defined as the "product cycle".The “product cycle” model is an approach that considers how resources and materials are used, recycled and reused throughout the life cycle of products. This model covers all stages from production to consumption and finally to waste management, in line with the goals of sustainability and environmental protection. The product cycle is a process that covers all the stages a product goes through, from design to production, distribution, use and disposal. This cycle is optimized to minimize environmental impacts and use resources efficiently.

3.1. “Product Cycle” Model Structure

The “product cycle” model, like the first of the cycles for building production, is a system consisting of four stages (subsystems) that interact with each other, namely production, application, use and post-use, evaluated with a system approach (Biçer Özkun, 2011). When the expansion of the subsystems, processes and subprocesses in the “product

cycle model", which is based on the product cycle, is considered, it is seen that there is continuity and relationships of the stages in a certain order.

The model, which progresses with a certain flow, starts with the raw material phase of the product to be produced, unlike the construction cycle system. The product is obtained by finishing the pre-production and production processes, which are the components of the production subsystem. After production, the application subsystem, where the product will be applied, begins. In the application subsystem, the structure is obtained as a result of the application of the product. The fiction continues with the production subsystem, where the producer's influence is seen, and the usage subsystem, where the architect's influence is seen. The user requests, expectations and their evaluation are passed to the post-use subprocesses. In the post-use process, the model is completed with the subprocesses where dismantling and demolition are made or the products are evaluated as waste and to produce new products.

Product Cycle Production Subsystem:

Knowing for what purpose and where the products will be used before production is important for determining product features and design. Within the model, this process includes sub-processes covering the design of the product and raw material preparation. The production process, which can be adapted to each product and can vary according to product features, includes production, packaging, storage and sales sub-processes.

Product Cycle Application Subsystem:

The application process starts with the purchase of products from production sites or dealers and their transportation to the application area, to be used in large or small-scale construction sites, according to their

application areas. Before the application, the sub-processes that include the transportation and storage information of the products to and from the application area; the application process includes on-site application and pre-production application sub-processes according to the application methods of the products.

Product Cycle Utilization Subsystem:

In the pre-utilization process, there are sub-processes of modification and addition, where the product is modified according to user requirements and/or new products are added. In the use process, there is a maintenance sub-process, where periodic and continuous maintenance is carried out to ensure the longevity of the product, a repair sub-process, where repairs are made depending on user errors, service life or requirements, and a replacement-renewal sub-process. The stages in this sub-system, as in other stages, may vary depending on the conditions of use, product features and characteristics.

Product Cycle Post-Utilization Subsystem:

This sub-process includes the abandonment sub-process, which includes products that cannot be used or re-evaluated and cannot be dismantled or demolished, the dismantling-demolition process, which includes products that can be dismantled or demolished, and the re-evaluation sub-process, which includes products that can be re-evaluated.

3.2. Correlating "Product Cycle" and "Building Cycle" Systems

Cycle systems for building production are systems developed to ensure sustainability and efficiency in the construction sector. These systems are designed to optimize construction processes, use resources efficiently and reduce environmental impacts. The similarity of the "product cycle" and

“building cycle”, their subsystems and expansions created for building production is remarkable. Cycles should be associated before creating the model, especially because it is observed that the utilization and post-utilization subsystems, where user effects are intense, are directly related and there are similar feedbacks in the application subsystems.

The application and pre-application processes work with feedback with the project phase in the structure and the product phase in the product. The pre-utilization processes in the utilizatioin subsystem are also in a relationship with the requirements and project in the building cycle system and with the raw material and product in the product cycle system. When we look at the post-utilization phase, it works with feedback in the form of function renewal or new requirements for the structure. Making this correlation will guide in determining the stages of the structure's production and defining the place of the product in the structure.

4. “Product Cycle” Perspective in Material Selection in Architecture

The product cycle system covers all processes starting from the design phase of a product to the production, use and finally recycling or disposal phases. The role of materials in each of these processes is critical, as the choice of materials directly impacts not only the performance of the structure but also its environmental impact and sustainability. In this context, in a world where sustainability and environmental impacts are becoming increasingly important, the product cycle model and the material selection and decision-making processes to be managed within this framework are considered important for the discipline of architecture.

In order for people to live healthy lives and improve environmental quality, the environmental impacts of building products should be evaluated

throughout their lifespan. This process, called the life cycle, covers the stages of raw material extraction, production, construction, utilizatiion, destruction and post-destruction. Building products may cause different environmental impacts at each stage of their life cycle. Building products may cause environmental impacts that negatively affect human health during the utilization phase, depending on the maintenance and repair methods and intervals (Gültekin & Çelebi, 2016).

Building products interact directly or indirectly with the environment throughout a cycle that includes processes such as the acquisition of raw materials, production, application to the structure, use, and recycling or disposal at the end of use. It is assumed that as a result of determining the information regarding the interaction of building products with the environment, not only during their use but also during all processes in which they exist, the right decisions can be made in product selection in the building and thus healthy natural and artificial environments can be created (Tuna Taygun & Balanlı, 2005).

Decisions regarding building products in design are of great importance due to the role of products in determining the characteristics of the built environment, their ability to meet needs, and the nature of environmental interaction. However, decision making is complex and difficult because it requires correctly establishing the complex relationships among many different characteristics and because of the variety of approaches that can be utilized. In architectural practice, it is observed that these decisions are often made in accordance with certain and limited perspectives, ignoring the relationships in question; inappropriate decisions lead to consequences that negatively affect both the user and the environment (Darçın, 2022).

In this context, since the selection of materials in architecture is a multidimensional process in which not only physical properties but also factors such as environmental effects, costs and social dimensions should be taken into account, the "product cycle" model offers a convenient framework that addresses the life cycle of a product with a systematic approach. In this context, the model provides a system developed to manage the complex process of material selection and decision-making, and allows for more conscious and strategic decisions in material selection. The model helps to predict the difficulties that products may encounter throughout their life cycle and to take proactive steps to cope with these difficulties.

In architectural practice, material selection should be considered not only as an aesthetic or functional choice, but also as an environmental and social responsibility. In this context, the "product cycle" perspective in material selection plays a critical role in design and planning processes.

4.1. “Material Science” in the “Product Cycle” Model

Materials science is one of the cornerstones of design and engineering processes. Materials science is a discipline that affects the durability and performance of products and is important in terms of discovering new materials and improving existing materials. These processes begin at the beginning of the product cycle and continue throughout all stages.

In this context, the material selection process consists of a series of stages. First, the architect determines the project requirements and searches for material alternatives that meet these requirements. Then, the architect evaluates the advantages and disadvantages of each material by making comparisons between these alternatives. In this stage, the performance

characteristics, environmental impacts and aesthetic values of the materials are taken into account. Finally, the architect selects the material that best suits both the design goals and practical requirements.

Aesthetics and Functionality: Material selection requires a balance between aesthetics and functionality. Material also determines the aesthetic aspect of architectural design. Different materials create the character of the structure and space by offering different colors, textures and surface features. In addition, the suitability of the material to be selected for the function of the structure, its durability and maintenance requirements should be evaluated first.

Sustainability and Environmental Awareness: Protecting natural resources, combating climate change and reducing environmental impacts are among the responsibilities of architects. The use of renewable and recyclable materials is an important step in achieving these goals. In addition, choosing local materials both reduces the carbon footprint and reflects the local culture and architectural identity.

Innovative Materials and Technological Developments: The use & selection of materials in architecture is constantly evolving under the influence of technology. Smart materials, energy-saving systems and new production methods are transforming the design process of architects. These innovative methods not only increase design freedom, but also speed up the construction process and reduce costs.

4.2. Applying the "Product Cycle" Model in the Analysis of Material Selection Dynamics Through Case Studies

Material selection in architecture has become a critical component of the architectural design process. Sustainability is increasingly being

considered in the selection of materials in architecture, and the environmental impacts of these choices are being assessed. The "product cycle" approach examines the stages that materials go through throughout their life cycle, allowing us to understand the environmental, social and economic impacts of this process.

In this context, the product cycle model was applied to material selection in architecture and a comprehensive analysis was carried out on selected architectural project examples in order to emphasize its importance. The selected projects demonstrate the role of material use in the design process, how it shapes sustainability goals and environmental impacts, and also demonstrate the functionality of the model in both the application and analysis stages. This analysis aims to provide architects and designers with a better understanding of the factors that should be taken into account when selecting materials and the effects of these choices on architectural outcomes, and to provide ideas on how to make a more conscious choice of materials.

4.2.1. Bosco Verticale, Milan, Italy, Boeri Studio

Bosco Verticale, located in Milan, is a renowned architectural project designed by Stefano Boeri (Figure 1). It consists of two residential towers that are covered with a variety of trees and plants, creating a vertical forest in an urban setting. It demonstrates the potential for integrating nature into the built environment, offering multiple benefits such as improved air quality, temperature regulation, biodiversity preservation, noise reduction and enhanced well-being (Erdinç, 2023).

The Vertical Forest is an architectural concept which replaces traditional materials on urban surfaces using the changing polychromy of leaves for

its walls. The biological architect relies on a screen of vegetation, needing to create a suitable microclimate and filter sunlight, and rejecting the narrow technological and mechanical approach to environmental sustainability (URL 1).

Figure 1. Bosco Verticale (URL 1)

Production Subsystem:

Sustainability: Bosco Verticale promotes the use of environmentally friendly materials. During the design phase, energy efficiency and materials compatible with the ecosystem were chosen.

Aesthetics and Function: The design focuses on the combination of nature and architecture. The materials chosen allow the integration of vegetation and natural elements, while enhancing aesthetic values.

Material Resources: The production processes and sources of the materials used have been evaluated in terms of environmental impact. Preference for local materials contributes to the reduction of carbon footprint.

Production Technologies: Modern production techniques and technologies have enabled the efficient use of materials. Appropriate material selection, especially for modular structures, has accelerated the construction process.

Application Subsystem:

Construction Process: The applicability of materials during the construction phase is important in terms of labor and time. The materials used in the building are selected from types that are easy and fast to install.

Modular Structure: Selecting materials in a modular structure simplifies the assembly process, shortens construction time and reduces labor costs.

Durability: During the application phase, the durability of the materials and their resistance to weather conditions were taken into account. This ensures the creation of a long-lasting structure.

Work Safety: The safe use of materials during the construction process is a critical factor in terms of work safety. Safety measures have been taken into account, during the transportation and installation of heavy materials.

Utilization Subsystem:

Energy Efficiency: The impact of material choices on energy efficiency plays an important role in building use. Insulation materials and integration of energy-saving systems minimize energy consumption.

Health and Comfort: The effects of materials used in interior spaces on human health have also been taken into account. Materials with low VOC (volatile organic compounds) emissions have been preferred.

Durability and Maintenance: The longevity of the materials and the low maintenance required are important during the usage phase. The durability of the materials used in Bosco Verticale is optimized for long-term use.

Post-Utilization Subsystem:

Recycling and Waste Management: In the event of end-of-use of the building, the recyclability of materials is of great importance. The materials used in Bosco Verticale are suitable for dismantling and recycling processes, supporting environmental sustainability. In this context, recyclable materials were preferred in the selection of materials.

Ecological Impact: The impact of post-use materials on nature should be evaluated in terms of environmental sustainability. Protecting and increasing green areas is important to ensure ecological balance.

4.2.2. The Edge, London, England, PLP Architecture

The Edge is an office building in Amsterdam that stands out with its sustainable architecture, opened in 2014 (Figure 2). Situated in the centre of Amsterdam's Zuidas business district, The Edge is an office building which opens itself up to the city with its 15-storey atrium. The atrium acts as a window between the world of work and the outside, as well as providing a social heart for the building, and serving as an environmental buffer to reduce energy use. As well as its energy-neutral temperature control, energy efficient design and green energy-generating technology, the Edge captures rainwater and stores it underground for use flushing toilets and watering plants in the interior and exterior gardens (URL 2).

Figure 2. The Edge (URL 2)

Production Subsystem:

Sustainability and Environmental Impact: The Edge has been designed in line with energy efficiency and environmental sustainability goals. The environmental impacts of the production processes of the selected materials, not harming nature and being produced with sustainable methods are at the forefront. In the selection of materials, materials that minimize environmental impacts, are recyclable have been preferred.

Aesthetics and Function: The aim of the building design is to balance aesthetics and functionality. The materials used are expected to add aesthetics to the architectural design and increase functionality.

Use of Local Materials: Using local resources in material selection both reduces costs and carbon footprint. At The Edge, materials procured from local sources were preferred.

Application Subsystem:

Efficiency of the Construction Process: The applicability of materials during the construction phase and ease of assembly are important for the efficiency of the workforce. The materials used in The Edge were selected for fast and effective assembly processes. The use of modular building elements and prefabricated components accelerated the process.

Work Safety: The safe use of materials during the construction process has been taken into account in terms of work safety. Safety measures are important, especially during the transportation and installation of heavy materials.

Safety and Durability: The safe use of materials during the construction process and their durability are critical throughout the life of the building. The materials used in The Edge have been provided with both structural durability and compliance with occupational safety standards.

Utilization Subsystem:

Energy Management: Elements such as advanced insulation systems and energy-saving windows minimize energy consumption. Material selections are integrated with energy management systems. Thanks to the building automation system, the energy consumption of the materials used is optimized.

Durability and Maintenance Need: It is important for the building users that the materials selected are long-lasting and require low maintenance. In this context, durable and low-maintenance materials were preferred.

Comfort and Functionality: The Edge is an office building designed to increase employee comfort. In this context, interior materials were selected considering factors such as acoustic comfort, air quality and aesthetics.

Post-Utilization Subsystem:

Recycling and Waste Management: When a building is no longer in use, the recyclability of materials is important. In The Edge project, a sustainable approach was adopted, taking into account recycling possibilities in the selection of materials.

Ecological Impact and Biodiversity: The impact of post-use materials on nature has also been assessed. Green roof systems and planting applications have been integrated into the project to support ecological balance. The Edge is a building designed to protect and increase green areas, thus aiming to provide ecological balance.

4.2.3. The Torre David, Caracas, Venezuela, Urban Think Tank

Torre David is a notable building located in Caracas, Venezuela (Figure 3). The Torre David was a challenging task to think about changing patterns of energy use and harvesting renewable energy when basic needs had to be fulfilled. In an admirable effort, the inhabitants of the tower have organized and established an improvised infrastructure of electricity, water and mobility. Realizing and integrating the environmental potentials of the site, the existing architecture and its verticality as well as the strong community of inhabitants opens up the path towards a livable and sustainable present and future (URL 3).

Torre David demonstrates how the choice of materials is shaped by factors such as local resources, sustainability, economic accessibility and community participation within the framework of the product cycle model. This structure reveals how an unfinished building is transformed by local communities and what role material choices play in this process. Torre David is an inspiring example in terms of architecture and society.

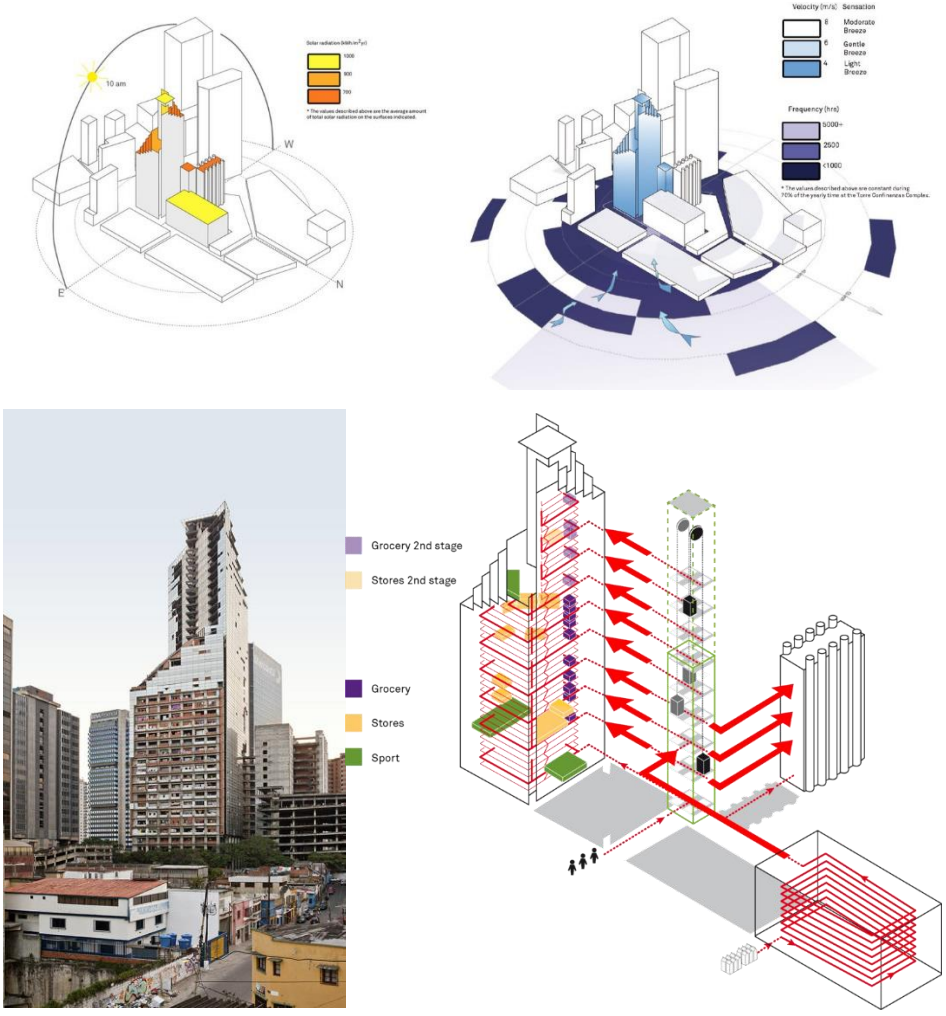

Figure 3a. Torre David (URL 3) & **3b.** Torre David (URL 4)

Production Subsystem:

Use of Local Materials: Torre David has a design based on the use of local materials in the construction process. The use of local resources has reduced both costs and environmental impact.

Functional Design: The building was designed according to the needs of the local community. Functionality and flexibility were prioritized in the selection of materials, allowing for the support of different uses and lifestyles within the building.

Recycling and Reuse: At Torre David, the reuse of existing building materials played an important role during construction. This saved energy and resources, while also reducing waste.

Economical Material Selection: The project was implemented keeping in mind the cost effectiveness. Therefore, less costly and accessible materials were selected. This increased the sustainability of the project.

Application Subsystem:

Easy Application: The ease with which materials can be applied during the construction process is important for labor efficiency. At Torre David, construction workers and community members applied the materials using their own skills and knowledge.

Community Participation: During the implementation, the participation and skills of local people were of importance. This ensured that local knowledge was taken into consideration in the selection of materials.

Utilization Subsystem:

User Needs: Torre David, as a structure shaped according to the needs of the users, provided flexibility in the choice of materials. Users had the opportunity to customize the space according to their own needs.

Social Interaction: The building offers spaces that encourage social interaction, therefore elements that increase social sustainability were taken into consideration in the selection of materials.

Post-Utilization Subsystem:

Recycling Opportunities: While the materials at Torre David have limited post-use recycling opportunities, the ability of local communities to reuse these materials allows for a sustainable approach even after the building has ceased to be used.

Social Transformation: The building offers an opportunity for social transformation and re-evaluation after use. Users have the chance to create new functions and spaces by evaluating existing materials and structures.

5. Conclusion and Suggestions

The development of the country's economy in Turkey is largely parallel to the construction sector. The construction sector, which has a large share in the development of the economy, covers many areas from raw materials to construction production. When the areas covered by the construction sector are considered, it is seen that the scope and impact of the construction material sub-sector on the economy are especially greater.

The construction material sector, which is the most important sub-sector of the construction sector, has a high diversity that will respond to the expectations that arise depending on different areas of use and user requests. Depending on today's conditions and technology, this sector, which is constantly increasing in diversity and has great importance especially in construction production, is shaped to respond to all kinds of situations from low-income users to high-income users. The ability of the materials sector to respond to different conditions and situations depends

on factors such as product features, production methods, application techniques, and service life. Therefore, every input from the raw material used in the production of the product to its place of use in the structure must be planned by taking into account both the user and the application areas.

The use of "correct" materials plays a crucial role in shaping architectural design in terms of aesthetics, functionality and experience of a building. The use of materials in architectural design encompasses aesthetics, structural integrity, functionality, sustainability, user experience, and contextual relevance. Architects carefully consider these factors to create buildings that are visually appealing, structurally sound, functional, sustainable, and meaningful to their occupants and surroundings (Biçer & Erdinç, 2023).

In today's architectural production, material choices play a critical role not only in terms of the aesthetics and functionality of buildings, but also in terms of environmental sustainability and economic efficiency. The study aims to analyze the material selection and decision-making processes in the context of the product cycle model, starting from the design phase and extending to the production, use and finally recycling phases.

The practice of architecture is directly related to the selection of materials used in the construction of physical structures. This selection is not limited to aesthetics and functionality, but also includes broader dimensions such as environmental sustainability, economic efficiency and social impacts. Material selection is a critical factor that determines the life cycle of a structure; because each material shapes the interaction of structures with the environment through its inherent properties and production processes.

However, when choosing materials in the field of architecture today, not only immediate needs but also the stages that these materials will go through throughout their life cycle should be taken into consideration.

In this context, the product cycle approach will increase the responsibility of each stage in material selection, allowing architects to make more conscious and sustainable decisions. Life cycle analysis of materials will help designers better understand the environmental impacts, energy consumption and end-of-life scenarios of the materials they use. This broad perspective in material selection will contribute to the development of architectural practice and enable the creation of more sustainable living spaces. For example, choosing energy-efficient materials will not only reduce the energy consumption of the building, but will also minimize environmental impacts while providing economic savings in the long term.

"Product cycle" model which is designed by Biçer Özkun (2011) was also adapdated to "furniture" as "furniture product management" to be able to apply the model for creating the furniture product management system and processes, to prevent possible confusion in planning and application, and to minimize risks (Başbuğ & Biçer, 2023; Başbuğ, 2016). As applying for the "material selection", it is evaluated the "product cycle" model can be an efficient systematic method for any design and analysis processes.

As a result, the relationship between material selection and product cycle in architecture will both deepen design processes and increase the environmental responsibility of architects. The integration of these two concepts will form the basis of sustainable architectural practices and allow for the development of innovative solutions in harmony with nature for the architectural structures of the future.

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1st Author % 60, 2nd Author %40 contributed. There is no conflict of interest.

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A New Conceptual Proposal on The Problem of Originality in The Reproduction of Historical Form in Architecture

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1. Introduction

Since the turn of the century, the climate created by socio-cultural, political, and economic changes in the world and Turkey has also affected the architectural environment. In this period, migrations and financial crises increased, and new actors emerged in the political and economic sphere. The latest tension created by globalization has triggered the emergence of new discourses in the local context. In several countries, developed or under-developed, as a projection of this context, despite the global diffusion of contemporary architecture, a new historicist language referring to the precedent period(s) is seen and active domestically and predominantly in the design of public buildings. Even though this reaction is fed by the cultural values of the country, this is a glocal reaction. However, the new historicism is partly politically motivated by a limited geography. These structures, which are predominantly seen in public buildings in Turkey, cause a crisis with the existence of the architectural product. From this point of view, when other historicist styles are also considered, it is not the fact that the architectural product has historical references, but the way the precedent is reproduced that poses a problem.

Naturally, when considering the architectural sphere, including this period, the existence of reference(s) in architecture cannot be denied, and can be traced in designs from different periods. Throughout the ages, the architectural environment has witnessed historical styles with different characteristics. Eclectic and revivalist approaches of the 19th century and critical approaches of the 20th century, and examples of post-modern historicism that ridicule historical precedent with a playful and selective approach, which are completely different from these, cannot be evaluated

in the same way. What is important here is the context established with the precedent. In other words, the fact that the relationship established with the former architectures is not contextual but only imaginary and does not involve any creativity leads to the problem of originality.

Architectural historicism is influenced by the current ideas (mostly political) of the period. The historicist approaches that became dominant in different periods in Turkish architectural history are also not isolated from the understanding of time and history of the period. However, although the impact of socio-cultural and political changes has an impact on architecture, historicist styles mature in architectural sphere and find followers, that is, they are internal. The new historicist language, Neo-Ottoman-Seljuk architecture, which has become widespread and dominant in the design of Turkish public buildings especially after the 2010s, is not shaped on a theoretical and practical infrastructure. For this reason, the style is also at the center of contemporary architectural debates. In this respect, the style presents a problematic with its emergence and qualifications.

At the same time, the style differs from other historicist tendencies represented by important examples in the history of architecture with its reproduction of the precedent form and its originality. The references of the style are based on a new historical narrative. Even if history is a narrative, it makes the claim to have actual substance (De Certeau, 1975; Traverso, 2020). Simultaneously, Sargın (2015) criticizes the era but emphasizes that history cannot be made up solely on subjective assessments and links architectural creations derived from so-called discourses to necromancy. Indeed, the reference area of the style is quite

wide in terms of time and geography. Former historicist styles refer to certain examples, periods and geographies mostly in relation to politics. The style, however, attempts to conceptualize the idea of dominated areas and the Ottoman image of a great state, as well as the Seljuks' Anatolian origins and even their - admittedly more direct - link with Central Asia and creates an unrealistic boundary (Batuman, 2018). For example, it is important that the first monumental structures with administrative and socio-cultural functions in Anatolia, in Konya, the capital of the Anatolian Seljuk State and one of the important provincial centers of the Ottoman Empire, provided the city with an exemplary typology in line with the Anatolian-Turkish urban model (Çelebi & Arpacıoğlu, 2023; Çelebi & Arpacıoğlu, 2024). The style brings together eras and cultures that cannot relate to each other with a utilitarian understanding. Regretfully, instead of creating a field, a phenomenon within architectural culture, this scenario is instrumentalized. Researchers' investigations show that the style differs from other historicist tendencies represented by important examples in the history of architecture with its tendency to reproduce the antecedent form and its originality. In other words, the contextual distinction in the effort to determine the future with reference to past periods according to the time perception of the era changes the tendency to reproduce the antecedent and the originality of the successor structures. Therefore, there is a need for a new conceptual discussion on architectural originality and reproduction of form.

In this study, based on the concepts of reproduction and originality in creative disciplines, a new discussion is started in this field of architectural and the changing states of similarity between predecessor and successor

are tried to be made sense of. For this reason, certain thresholds and breaking points have been defined between the state of being similar to the precedent and the state of creating a unique language by differentiating from the precedent. The proposed concepts of copy, citation, parody, collage/assemblage, emulation are defined in the field of architectural knowledge based on intertextuality and discussions in various disciplines, especially painting and sculpture.

Current discussions on historicism monitor that transformations of socio-politic and cultural spheres affect on architectural production. Historicism, which has risen under the latest conditions in the world and Turkey, is criticized politically and scrutinized in the related disciplines. With respect to this, conceptual expansions and proposals that need to be put forward in the field of architecture are essential to analyze the newly constructed buildings in the context of their own discipline. In this respect, the study proposes an interdisciplinary set of concepts to the field of architectural knowledge. Since the aim of the study is to examine and define the existing examples and to analyses the historicism encountered in the new era with architectural knowledge, the proposed concepts are clearly open to discussion and development, even reduction or new suggestions.

2. Material and Method

Today, the degree of resemblance between the predecessor and successor structures is a key indicator of originality, according to current discussions on mimesis and originality. In the contemporary architectural environment, originality does not define the state of having no precedent, but rather the state of being unique with its own internal dynamics, even if it refers to one or more prior phenomena. In this way, it becomes possible

to define a range of values, and a breaking point, on the axis of imitation, if not zero point, regarding originality. In order to assess the originality of the buildings and measure how closely the architecture resembles precedents, the new debates on the concepts are crucial. The study argues that the relationship of the similarity between predecessor and successor can be discussed by refining it with new concepts. In the field of architecture, the relationship of similarity between them can be analyzed with the help of interdisciplinary concepts. However, the concepts should not be directly transferred to the architecture and their scope should not be compressed and reduced, but rather adapted and enriched.

The existence of historical or contemporary precedents in architecture has always posed a problematic. In a framework where the premise of creativity is accepted as transcendence, the existence of precedent is no strange. In the study the level of similarity between the predecessor and successor architectures and is determined and the production methods that make these similarities possible are defined through various concepts used in creative fields. For this purpose, the discussions on intertextuality that is also expressed as intermedia and reproduction have been heavily analyzed. Kristeva (1969), who first presented about intertextuality, emphasizes that a text is not pure, and that any text is taken up through the assimilation and transformation of another. Intertextuality basically involves mimetic productions, in this context textual transmission is not an identical reproduction of a text-in this case a work.

In this study, the concepts were chosen to describe the current conditions. Accordingly, the concepts of citation, collage/assemblage (with parody), and emulation, which are frequently discussed in other creative fields, are

redefined within the discipline and their scope is discussed in the context of discussions on historicity and originality. Although the examples used to explain the concepts were not selected from a specific period, examples from the recent period were predominantly used to prove the claims.

3. Reproduction Concepts in Architecture

3.1. Architectural Originality

The search for originality in design has led to the emergence of products that are not equivalent to each other and have unique qualities in relation to production practices and context in architecture -and all creative disciplines. In this regard, determining the precise description of the notion becomes significant when evaluating the originality of buildings.

Architectural product differs ontologically from other works of art due to the production process and different socio-cultural, political, and economic conditions that constitute process, the fact that buildings attached to a place and that the entire construction process is part of a collective production, unlike other works of art. Because there are not numerous studies in the subject of architectural ontology (Koçyiğit, 2018), even though architectural entities have their own special challenges, the debate about originality in the realm of architectural knowledge is conducted by utilizing theoretical arguments in art disciplines. This will help us distinguish between the other fields and add to the conversations on architectural originality.

Original denotes being different, superior to other works, and possessing exceptional worth in its purest form. When it comes to historical designs in particular, originality arises from a thoughtful and imaginative separation from the forms, styles, and organizations that came before it.

According to Hançerlioğlu (1978), originality has same value of eccentric and type, and it differs from banal, classical, and general. The base of original comes from the origin that is the point or place where something begins (Güleç, 2017; Teyssot, 2008). Only when a piece of design has its own distinct form and style can it be regarded as the first example. It must therefore differ from its precedents.

In the field of architecture, had the definition of originality evolved in tandem with advances in theory and technology. Güleç stated that the concept of originality, which is associated with the concepts of beauty and innovation in the field of art, means formal and conceptual innovation in the field of architecture (Güleç, 2017). Originality is also a state of autonomy. Original work can sometimes be achieved by using existing materials and following forms. Architectural originality is the state of producing unusual solutions from the relationship between the structure and its surroundings to its façade (Guilford, 1959; Read, 1960; Özorhon, 2008). In doing so, it does not always have to make a new discovery or create a rupture. The idea of being unique and one-of-a-kind, never produced before, which we encounter again in some discourses held by architects in today, is the residue of early modern architectural philosophy. In short, with modernity, the idea of the work being unique has gained importance.

Modernity conflicts with tradition and has a progressive approach. As a result of this, in the modern history understanding, time is considered as progress. Hence, modernism is constant evolution and progression to the future considered as to be good always (Heynen, 2011). Colquhoun states that in contrast to the historicist form of the 19th century, there was a

search for uniqueness in modern architectural thought. Modern architecture seeks originality through technique and building materials. Jenck wrote that this approach leads to a universalized and internationalized sameness and therefore brings modern architecture to the center of criticism (Jencks, 2009). As of the mid-century, this rigid notion began to dissolve and the meaning of the new was questioned again. According to Tanyeli (2013), the understanding that glorified the idea that the human mind would constantly produce the unexplored began to lose its influence. For this reason, critical ideas began to emerge in modern architecture.

Today, originality in discussions is interpreted as uniqueness and authenticity; being undiscovered is no longer a prerequisite. Of course, the history of art and architecture has also seen revolutionary ruptures. Therefore, what has not been discovered before cannot be ignored. Moussavi describes architectural production as a process in which innovative forms and identities are created through the repetition and differentiation of forms. Moussavi describes architectural production as a process in which innovative forms and identities are created through the repetition and differentiation of forms. Accordingly, the distinguishes between new and novel are stated. The new is the product of revolution, while the novel is the product of evolution (Moussavi, 2011), and the novel forms are also quite original. It is no coincidence that the approach is common in architecture or other art fields. Originality is an innovative transcendence and creation. For this reason, works that are almost identical to their predecessors are unique, that is, they are not original.

The conceptual boundaries of originality discussed in the context of the philosophy of art change in relation to the existence of the architectural work and how it is defined when it comes to the field of architecture. The ontological status of the architectural work differs from that of other artistic creations, as was previously mentioned. In this sense, architectural being ought to be questioned. Koçyiğit (2008) scrutinized whether architectural being is universal or particular. If we take the architectural work as universal, it is stated that each constructed sample carries and embodies the qualities expressed by the work. Accordingly, a reconstruction of a building should have the same value regardless of location. Yet it is well-known and accepted that the physical and social contexts of place is related to structures. For instance, the artificial neighborhoods and structures constructed in China, such as Thames Town and Tianducheng (Bosker, 2014), are expected to be considered as originals (Figure 1). Even though they are visually appealing for tourists and consumers, replicated buildings or metropolitan districts are rarely recognized as authentic. However, these urban spaces are decontextualized and have the characteristics of theme-parks.

Figure 1. Tianducheng, Sky Capital City, is faux Paris in China (ABC News, 2016)

In the same way, the question arises whether rebuilding a demolished building in the exact same way makes it the same. When structures such as Taksim Military Barracks are rebuilt, even if they are physically the same, the meaning it establishes with the social and temporal dimensions of the place will change. Since each reproduced architectural work establishes a context with the place, it also produces a new meaning. Therefore, the structure will be differentiated in each reproduction (Güzer, 2007).

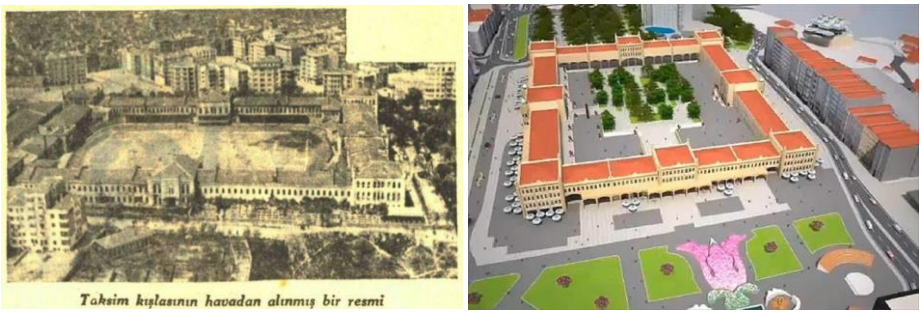

Figure 2. Taksim Military Barracks (above) and the proposed project (below) (Atasoy, 2013; Anadolu Agency, 2014)

On the other hand, if one considers the architectural work as a singular example, then one cannot find another example of an architectural work that is identical to any other original piece of art (Koçyiğit, 2018). An architectural work is ontologically distinct from other works of art. While a literary work is considered original in every edition in relation to its content, the ontological status of a work of art differs. Architecture, concerning its ontological status, ensures its uniqueness in a different way from other works of art. According to Ingarden, the nature of a work of art is to be unique. In the example (Figure 3) he gives on Notre Dame de Paris cathedral, he evaluates the possibility of seeing copies of the building lined up side by side as negative (Ingarden, 1989).

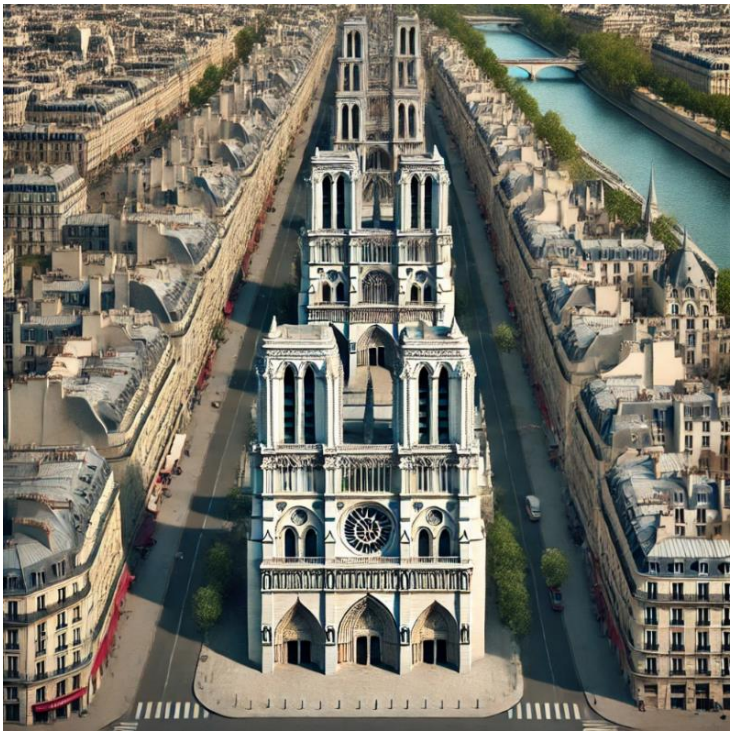

Figure 3. A representation of Ingarden's claim about Cathedrale Notre Dame de Paris, produced by ChatGPT (2024)

A piece of art's distinctiveness sets it apart from other things and contributes to its originality (O'Hear, 1993). In this respect, the uniqueness of an architectural work can be measured by its creative production and its authentic language. Although the concept of uniqueness is often talked about for originality, the existence of a precedent in architecture does not always imply a copy or unqualified plagiarism.

In the architectural design process, various formal or stylistic, contextual, and/or technical relationships can be established with predecessor examples. Therefore, originality is not always a big break or a search for a zero point (Güzer, 2007). Originality defines a creation that transcends its precedent and is related to the designer. According to Dutton, the originality of a work of art is related to the status of its reference, that is, the similarity to the referent (Dutton, 2009). Again, according to him, the production of artworks becomes unique by revealing a different existence from its predecessor. Successor structures that reproduce their predecessors in an equivalent way do not contain innovation and transcendence, and therefore cannot be considered original. Here we can speak of the kind of sameness and copying that Ingarden talks about.

In the process of reproducing historical predecessor structures and architectural elements, the value of originality may vary according to the similarity relations established between the successor and the predecessor. Özorhon also stated that inter-architectural inspiration is possible, and that the resulting successor can also be original. Accordingly, it is possible to talk about degrees of originality (Özorhon, 2008). As the level of similarity between the predecessor and the successor increases, products that are

identical or similar to reference structure without innovation and difference are obtained.

The value of originality is diminished when architectural assets are replicated, copied, or produced in a highly comparable manner. The change in the relationship of similarity, which is implicit in discussions of originality, can bring up different forms of reproduction, in this case, in the context of historicism. The reproduction of the precedent can be formal as well as contextual. In the reproduction of historical forms, originality is achieved through the transcendence, conversion, and transformation of the predecessor into a new language as a result of a creative process. For this reason, considering originality not as a single point but as a range will enable us to read different architectural examples without confining them to a broad inclusiveness.

3.2. Architectural Historicism

Historicism a new consciousness based on Western philosophy in which human decisions and judgment are historically determined. Architectural historicism is used to describe references to historical precedents in design. Historicist styles, mostly refer to iconic buildings, have been seen in different periods as arrhythmic pulses that are triggered by the perception of time specific to the period, and so, differ from each other.

In his article titled Historicism and Architectural Knowledge, O'Hear defines historicism as an approach that assumes that there is inevitable path in human history and insists that the individual must submit himself to this trajectory, stating that it is necessary to follow Popper and think of history as evolutionary (O'Hear, 1993). Popper, one of the scholars worked on historicism, criticizes historicism, and to more, identifies it as a miserable

method. By stating that choices and responsibilities belong to the individual, history is unpredictable (Popper, 2008).

Since architectural production is also a cultural transmission, the ontology of historicism is different from the philosophy of history, as O'Hear (1993) points out. However, despite these distinctions, discussions in the philosophy of historicism provide references for reading architectural historicism. Throughout the history of architecture, there have been attempts that suppressed the architectural environment at different intervals and lost their effect after a while in relation to the state of the era. Although Balamir (2020) describes them as endemic rather than pandemic, irregular rather than periodic, some historicist approaches, such as eclecticism and revivalism or critical regionalism and historical postmodernism, have also provided examples and had followers in geographies associated with continental Europe and the United Kingdom, though not necessarily globally.

Historicism is a concept that has been included in design with the conscious effort of architects in certain periods in search of the era's own style. The attitude towards historicism has changed in different periods with the structure of architecture that both feeds from social life and shapes social life. Thus, the acceptance of the styles, whose qualities, and the relationship they establish with precedent differ from each other, in the architectural environment and social life is also variable. When we look at the history of Turkish architecture, it is necessary to expend the boundaries of the concept of historicism while evaluating the historical elements rising in recent public architecture together with the national architectural

searches, critical regionalism, post-modern revivalism, and contemporary historical references in Turkish public architecture.

From the 18th century onwards, according to Colquhoun, the rising historicist understanding is a reference to nostalgia and a sense of irreparable loss, unlike the Renaissance. Thus, since this century, eclectic understandings have been growing (Colquhoun, 1996). For instance, during this period, Johan Fischer von Erlach, architectural historian, not only recorded the history of architecture, but also defined the architecture as a synthesis and collage by combining the elements chosen from past styles in his styles-like his design Karlskirche Church (Figure 4) (Garnham, 2013).

Figure 4. Karlskirche Church of Vienna

Colquhoun also reports that during Directoire period, the French Republicans, who referenced the Roman Republic, turned to classicism with the desire to transform society (Colquhoun, 1996). To put it clearer, their goal was to establish a new tradition with canonical approaches to create a new nation. Gurallar also draws attention to the prophetic attitude

of historicism that aims to determine the future of this epoque (Gurallar, 2015).

In the 19th century, which Pevsner defines as a founding century and a true age of historicism, every style began to be seen as a language (Pevsner, 1977), and architects focusing on the present instrumentalized these languages for the formation of the present. Hvattum states that with the demand for "the style of our time" they aimed not only to represent but also to shape the present. While revivalists argued that a style should be adopted to present modern society, eclecticists argued that a synthesis of past styles could be the true expression of the present (Hvattum, 2004).

The 18th century was an era in which nations were built and in the process of this construction, origins were redefined. For this reason, during these times it is believed that the ties established with the past proof of the existence of the present. Until the early 20th century, the attitude was to idealize the past in order to create the present, and this was reflected in architecture. In this century, the new in architecture was sought within existing boundaries.

The 20th century's understanding of time focuses on the present, not the past. This can be seen as a negation of an understanding in architecture in which past forms are idealized and reproduced. Giedion refers to the new understanding of time when he states that the consciousness he reached under the conditions of the period was looking for its reflection in architecture. Ceylan pointed out that the Bauhaus school's architectural education was shaped on both a de-historicization and the teaching of pre-modern crafts (Ceylan, 2016). This essentially shows that although the reproduction of forms is rejected within the modern movement, the

knowledge of how to make can be reproduced. To put it more simple, the language of references has changed.

As a result of the dissolution of the International Style, which became dominant in Modern Architecture, the boundaries of historicism were redefined. Essentially, the desire to make architecture with certain rules all over the world was questioned and diminished. Architects such as Rossi, Grassi and Gregotti argued for the relative autonomy of the architectural order, and in addition to this, Rossi also argued that the city is made up of permanences rather than successive changes (Forty, 2000). In this sense, historical reference is not direct, beyond that the reference is reproduced as syntax, that is, Colquhoun (20005a) states that this is loyal to the principle of modernism that prohibits the direct references to precedent. One of the critical approaches that is emerged as modernist reaction is critical regionalism. It is based on the idea that regional architecture is not only about the form resulting from topography, physical environment and other quantitative factors, but also about the social and cultural structure associated with the region (Eggener, 1984).

Another approach is historicist postmodernism. Venturi, with a much more traditional view, concretizes form and places it as the carrier of the meaning (Forty, 2000). According to Colquhoun, the designers pioneered by Moore and Venturi put together figurative fragments in a way that does not organize a coherent sequence, creating parodies that are sequentially appealing but do not come together with a specific context. In postmodern historicist examples, direct references convey the language of earlier periods directly, directly and without interpretation. Such an approach is

used to harmonize with the historical environment or to revitalize the historicist attitude in a non-historical environment (Karasözen, 2016).

On the other hand, after the second half of the 20th century, architects such as Porphyrios and Krier argued that neo-classicism was not the antithesis of modern architecture, arguing against the positivist challenges of modernism, stating that history should be perceived as a passing commodity and that classical architecture could not be accepted as a past style, and aimed to unite neo-classical architecture with the contemporary architecture of today (Chabard, 2021).

When we look at historicist tendencies, we see that they emerge in different contexts. Colquhoun defines 18th century architecture as an incurable nostalgia and a search for redemption, and it is possible to evaluate today's revivalist approaches in this way. However, there are also approaches that criticize the strict rules of modernism while embracing its values and aiming for a cultural and social continuity.

The new historicist approach, which represents the current environment of Turkey, brings up a certain divergence -again. When the architectural styles that have been shaped by the perception of history since modernity are analyzed, it is seen that the new architectural language, which is seen in mostly public buildings in Turkey, differs from all of these, moreover, it has not found many followers in the architectural environment. The differentiation between all periods, especially this period, demonstrate that historicism is not one-dimensional. However, this differentiation also raises the question of how and in which contexts historicism will be categorized (Figure 5).

Figure 5. A public structure under construction featuring the Neo-Ottoman-Seluk Architecture

Sargın defines historicism on an axis, on where two points represents different values. The first definition of historicism is related to the ideological context of historicism and is a prophetic approach. According to the second definition, historicism is relatively less historical and is related to how the context of the process is interpreted, i.e. contextualist historicism. According to him, historicism can be interpreted by the point where it is positioned on the axis between being prophetic and contextualist.

Gurallar also suggests defining the approaches read about the use of history as an ideological sign and target, the superficiality of historical references, political insistence, and emphasis as tarihsici rather than tarihselci (Gurallar, 2015). The distinction here is not a hostile criticism or a formal judgment, but a critique of the architectural product's relationship with the culture of architecture and, as it is noted, its social, cultural, and especially political channels (Gurallar, 2015).

Bozdoğan describes the idea of historicism as a construction of the past in relation to the future. Buildings constructed according to new techniques, materials and contemporary spatial needs reproduce the traditional. For this reason, the precedent building was not reproduced typologically, but a new language emerged with a systematic design approach.

The canonical tendencies of historical pursuits in architecture are not the product of a creative process and no novel design can be achieved through them. Determining the future by idealizing past forms is a prophetic attitude as it is conveyed. The fact that the relationship of similarity established with the precedent is not contextual, but imaginary reduces the originality of the buildings. This is because the precedent form is seen as identical or similar in the new design with direct references. On the other hand, approaches that establish a context with precedent can reproduce a new architectural language with an understanding that exceeds the previous one. A novel and unique new architectural language may emerge as a result of an imitation that surpasses its predecessor. As pointed out in the discussions on originality, originality is the state of being unique and creating an innovation.

In architecture, historicist designs typically mimic a famous exemplar. The framework of historicism affects the context established between predecessor and successor in architectural production. In order to identify the referents and signifiers of buildings that imitate historical precedents, to analyze the formal and stylistic characteristics of the resulting buildings, and to reveal the differences between historical approaches, new concepts to be addressed in the context of the concept of imitation are needed. In the next section of the study, proposals for a set of concepts on the

reproduction of architectural forms are presented in the context of historicism and authenticity.

3.3. Reproduction of Architectural Forms

In all creative disciplines, comprehensive yet complex studies of originality and its transformation have been carried out. Although there are ontological differences when it comes to works of art and architecture, the existence of precedents in the creation process of both cannot be ignored. Reproduction in architecture has been handled with a focus on imitation and copying from antiquity to the present day, and throughout these periods, the debate on originality has been carried out in relation to the state of similarity between predecessor and successor.

Imitation is not an inevitable fact all the time. In the classical period, reproducing the form and organization of the precedent was considered original. So much so that Vitrivius (2002) states that human beings first imitate the perfection of nature and then imitate each other to improve their production. Roman architecture was built on similar values. In medieval art and architecture, imitation ceased to be an inevitable situation and always referred to a sample (Gebauer and Wulf, 1995). In the Renaissance, the remains of the Roman Empire were considered ideal for artists, and imitation became a labor of recovery and healing (Potolsky, 2006).

Unlike classical thoughts, in current studies, mimesis is considered a heterogeneous approach that has the potential to create difference even though its basic tendency is to establish similarity (Melberg, 1995). Adorno also states that art should include a form of criticism and that this is related to its mimetic character. Due to the nature of art, the artist can

even from their personal intentions and oppose the source they imitate (Heynen, 2011), thus similarity and opposition can coexist.

Deleuze reconstructs Plato's theory of mimesis in an anti-hierarchical manner. According to him, secondary mimesis is defined as simulacra, which produce new selves and new first instances with each act and reveal their first original effect (Koçyiğit, 2007). For Derrida, every production is an addition, and every work is in a mimetic relationship with its predecessors. Intertextual differences emerge through the repetition of this mimetic production. At the same time, however, he does not completely reject the possibility of creating something radically new (Grande, 2020).

When it comes to reproducing architectural form, the physical context, typological sequence, a particular form, or a historical connotation can be taken as a mimetic referent, and thus translated into design (Heynen, 2011). In this way we speak of an original reproduction of a premise. Also, there are various archetypal patterns and themes in the imitation of predecessor architectural works, which can be readthrough representations such as plans, sections and façades (Clark and Pause, 1996). This indicates that different layers can be reproduced in the inter-architectural relationship of the successor to the predecessor.

Jormakka (2021) has also discussed the transformation of a particular model in the process of reproduction. The idea is that the new building retains some of the structure's organization, order, and form while yet being distinct from it. Villa Savoye of Le Corbusier and Villa dall'Ava of Koolhas are given as examples. In his project, Koolhas reproduced five Corbusien five points: pilotis, free plan, free facade, strip windows and roof garden.

Regarding reproduction in architecture, the similarity between the predecessor and successor, and the originality of the successor, differ. A range in which distinct levels of similarity are seen between the state of being new and unique proposed by modernism and the state of being identical, that is, a copy emerges.

As discussed in the concepts of originality and mimesis, originality increases as the form differs from the imitated, or vice versa. In this section of the paper, new concepts are proposed to explain the changing states of similarity. Most of the proposed concepts will not be introduced for the first time in this study. Concepts such as copy, citation, collage, and emulation are used in the context of different studies analyzing structures. Some studies equate the concepts, and some others differentiate. This study will define the concepts within the specified range and convey the analytical relationship between them in a holistic manner.

Within the scope of the study, the concepts proposed to analyze the relationship between historically referenced buildings and their predecessors were identified as copy, citation, collage, parody, and emulation. The concepts have been discussed in the field of architecture regarding the concepts of intertextuality, and reproduction discussions in art theory.

3.3.1. Copy

Copy diverges in creative disciplines, especially in art and literature, in relation to the state of being. Copying is the exact reproduction of a well-known artist's work by another artist or someone else, as opposed to emulation, imitation, and citation (Sözen ve Tanyeli, 2020). In literal arts, copying does not change the originality of the work because the work is in

content. Even if a written/verbal work is copied, it will remain syntactically the same (Pettersson, 2009). As in literature, in some fields, the meaning of copy is different than as in architecture.

The line separating copy and imitation in architecture is blurry and frightening. Güzer draws attention to the importance of the boundary by stating to the importance of the boundary by stating that it is not easy to talk about a completely original product in architecture (Güzer, 2007). Yürekli and Yürekli state that imitation is based on creating something new from the precedent and has the differentiation potential. It is oriented towards essence and form. Copying, on the other hand, is about restoring the image (Yürekli & Yürekli, 2002).

When the similarity between an architectural work and its referent becomes almost equivalent, it creates a problem of originality. In the field of architecture, a copy can be defined as the reproduction of the whole work or a part of it that attributes recognition to it from the context of the place. For example, In China, increased examples are being seen daily as copies that have been taken out of the context of the place. Buildings, monuments, and squares such as old Italian cities or the Eiffel Tower have been reproduced. However, these lack the context of place, hence these appear only as theme-spaces. Because it overtly references its precedent and shatters the link that the precedent made with space and time, an architectural work cannot be deemed original even if it is duplicated in the same dimensions, with the same material, and in the same proportion. And, unlike imitation, copy has no role in the creative process.

While in medieval ecclesiastical architecture, it was acceptable to build churches identical, Krautheimer notes that the structures built differed

from plan to structure concerning the topographical and social contexts of the place. Since an architectural work is not an object, these examples related to the context are commonplace and show the status of the architectural copy (Potolsky, 2006).

China now replicates the world heritage, area by area and city by city. The buildings have been constructed as identical as precedent examples. However, the climate, the environment, topography and most importantly culture creates architecture. So, the final product has no originality as the reference.

Figure 6. Ronchamp chapel is copied in China and partly demolished after the Fondation Le Corbusier finds out.

As in the debate on originality, the architectural entity is not universal, and therefore the reproduced architectural work will not be the same as the first sample, as it will be detached from the context of place and time. Accordingly, for example, directly building the typologized -or canonized-

Turkish House buildings are not an original production. As Ingarden indicates out, it is producing copies. For instance, Çamlıca Mosque, even though a competition was held, was constructed the same as Sultanahmet Mosque. The structure is on a platform, which is quite contemporary, and the connection between subbasement and topography is disconnected. Only the building represents the same formal and stylistic features (Figure 7).

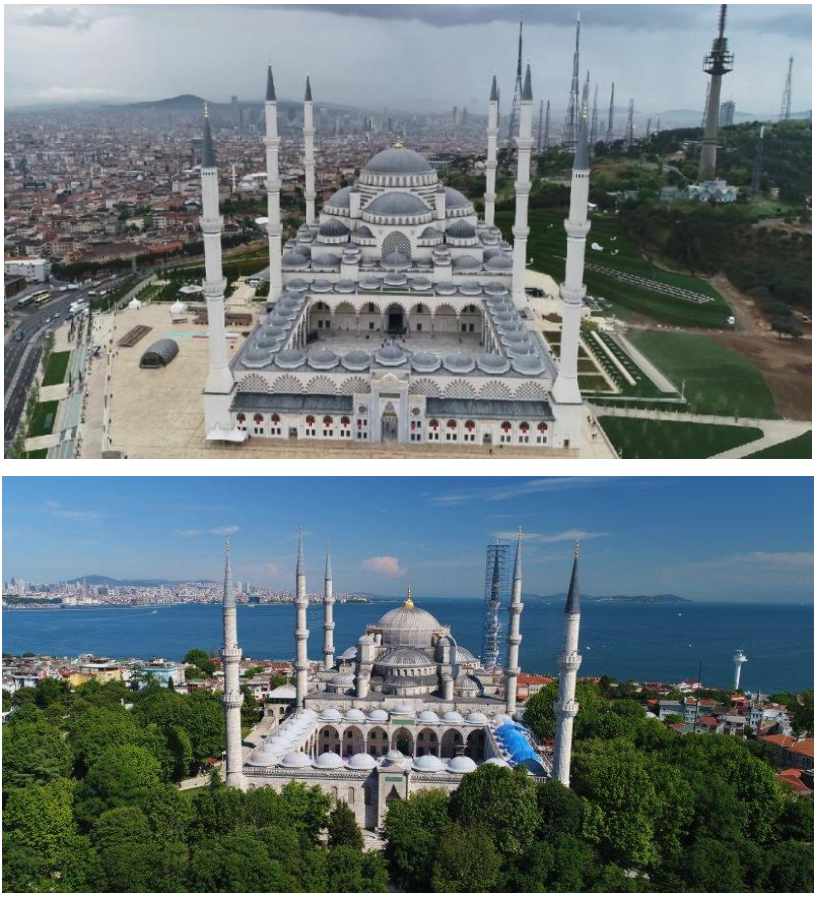

Figure 7. Çamlıca Mosque (above) and Sultanahmet Mosque (below)

3.3.2. Citation

Citation simply refers that a work is clearly seen within another work in literal or visual arts. There is a clear and concrete relationship between the predecessor and successor. In architecture, traces of citation is difficult to be found, however, it is not impossible to analyze in relation to the indicator.

Structural elements, ornaments, and forms that are not integrated with the structure completely, whose origin is unknown, are encountered in architectural design. It is well known that eclectic approaches incorporate architectural features from several predecessors, and this can be defined as citation. Faiz Büyükçam and Zorlu introduced the concept to the field of architecture in terms of a function and/or architectural elements transferred from historic structures (Faiz Büyükçam & Zorlu, 2018).

In the context of reproduction of historical form, it can be defined as the use of architectural elements or elements belonging to the predecessor in the successor structure with similar proportions, dimensions, and rhythm. Units such as doors, windows, portals, elements such as jambs, moldings, ornaments, facade and/or plan organizations belonging to the predecessor can be cited and can be followed in the successor structure without establishing a relationship with the entire design. For instance, on the main façade of Kütahya Government Mansion (Figure 8), even though plan and mass differed from the predecessor, the façade on main axis of former government mansion is clearly followed. In this sense, it is seen that the precedent form has not been changed, except for some materials and proportions.

Figure 8. Kütahya Government Mansion (above) has direct reference to former government mansion (below) and the style of it.

3.3.3. Collage/assamblage

Collage is a technique used in art disciplines, especially in painting. Discrete elements in collage are also discrete inside the piece (Öztekin, 2008). It is also known as collage paste painting in visual arts. It is the use of newsprint, posters, photographs, pieces of rope and similar objects on a panel or canvas, mostly on painted surfaces.

It is also known as collage pasted painting in the visual arts. You can use newspapers, affiches, photos, and other like objects on a canvas or a surface that resembles canvas. The object, as the organizer of the image,

determines the syntax (Girgin, 2018). Assemblage is the next stage of collage, its three-dimensional form.

In the study of Faiz Büyükçam and Zorlu, collage is explained as “the totality of all formal and operational adjustments, structural and spatial expansions, and alterations made during the historic building's initial use or repurposing” (Faiz Büyükçam & Zorlu, 2018). Their definitions contain references to identify examples of historicist architecture and form the basis for the definition to be proposed in this study.

The originality of collage in creative disciplines is related to technique. A sequential logic, not random juxtapositions, gives collage the quality of a work. Dadaists preferred collage to create irrational conjunctions and spatial dissonances made with consciousness. Giedion exemplified Gaudi’s creation in Park Güell as a college that preceded Picasso and Braque by a hundred years (Porter, 2014).

Also in postmodernism, some of the examples can be considered as collage. Postmodernists, against the rigid norms of modernism, have reestablished history as a field of reference as a critique (Jencks, 2009) and brought certain forms together by parodying. In this sense, Tanyeli mentions two tendencies in the process of reproduction of historical form. The first one is masking, which makes changes, cleanings, and form manipulations that that affect the recognition of references. The second one exemplifies the bringing the references from more than one precedent (Tanyeli, 2013). This discussion, which we can present as a basis for the concept of collage/assemblage in architecture, can also point to the variability regarding the originality of collage.

In collage/assemblage, it is seen that the dimensions are different from normal, and the forms are changed. This situation can be explained with parody. In literature, parody often means the transformation of text to create a ridiculous effect or entertain (Aktulum, 2014). Genette distinguishes parody from pastiche and consider it as an independent concept (Korkmaz, 2017). The style remains the origin but the content changes.

In the examples that indicates collage/assemblage, it is possible to analyze some kind of examples in the context of parody just like in literature or art. In historicist postmodernism, the elements of former architectures are mostly protected in form, yet the syntax and style (i.e. colour, material) has changed with a critical and playful approach, hence the meaning of the structure changed. For example, in Piazza d'Italia of Charles Moore (figure 7), all the historicist elements are individually resembling their references, but colors, materials, the scale of elements and the syntax are changed. But at the same time McMansions, which refers to older styles but changes scale, proportions, materials not changing exact form, can be also parody. Once more, it was noted that the architectural forms of the predecessor were repeated in these structures, albeit on a bigger or lesser scale.

Figure 9. Piazza d'Italia of Charles Moore.

Figure 10. Suburban McMansions

In Turkish architecture, examples considered as collage appear with different breaks of originality. It would not be too assertive to say that collage is a threshold concept. For instance, city gates constructed in Ankara represents an accurate example. The use of historical forms and motifs in unrelated places, proportions, and sizes, which we frequently encounter today's architecture, parodies new structures because they are disconnected from the context without creative approaches. Also, Adıyaman Government Mansion (Figure 11) can be given as another example. Three precedents, Seljuk, First and Second National architecture

seen in the building. Building elements such as tomb from Seljuk architecture, towers from First National Architecture and pilotis from Second National Architecture were combined together. Addition to this, the sizes of windows, arcs, doors had been changed, in other words they were parodied.

Figure 11. Adıyaman Government Mansion

On the other hand, Kayseri Government Mansion (Figure 12), which is designed by Merih and Nuran Karaaslan, has strong reference to Seljuk complexes. However, certain building types of the complex are reproduced in different functions, sizes, and positions in the new structure. With contemporary materials, typology, and spatial layout, they were able to achieve a new complex, just like Moore's approaches. Although the architectural elements are disjunctive, it is possible to state the existence of a novel language.

Figure 12. A façade from courtyard of complex, Kayseri Government Mansion

Artun (2014) also defines the presidential palace of Turkey as the non-architectural movement and states that it is an assemblage of two different national aesthetics in the history of Turkish architecture (Artun, 2014). Historical references are read in direct succession, but they are disjunctive, and cannot create a novel language.

In sum, the study proposes the concept of collage/assemblage as a definition of the undifferentiated or parodied coming together of every unit that constitutes the structure, such as building element, ornament and motif, decoration, pattern, colour, material or part of the structure taken from different predecessor structures.

3.3.4. Emulation

Emulation fits the definition of imitation given by mimesis theory, even though it is used in place of terms like copy. In intertextuality, the concept appears as a sub-textuality in time (Aktulum, 2014). In the field of art, it is the state of being superior to the characteristics of the work created by emulation (Girgin, 2018).

Faiz Büyükçam and Zorlu stated that emulation is the similarity of the historical building to the original structure as a result of the interventions (Faiz Büyükçam & Zorlu, 2018). For the field of architectural design, it is necessary to broaden the scope of the definition even further. Emulation in architecture can be both an intuitive and a conscious design approach, and it is an approach that differs from the predecessor and can also be expressed as inspiration.

The similarity between Le Corbusier's La Tourette monastery and Boston City Hall, which are examples of modern architecture, can be identified as examples of emulation. Similarly, the Şemsettin Sirer Mansion of Sedad Hakkı Eldem (Figure 13) can be characterized as an example of emulation. The façade organization, building elements, colors and the context established with the shore of Bosphorus mansions as a precedent, it is clearly seen that these are reproduced in Eldem’s design and differentiated with the language of modern architecture.

Figure 13. Şemsettin Sirer Waterside Mansion

B2 house designed (Figure 14) by Han Tümertekin demonstrates another example. In the area where the house was built, there have always been stone houses. Although the new building also references these stone houses, it can create a unique language.

Figure 14. B2 House

Several similar examples can be listed in the history of Turkish architecture. For example, Cansever and Bektaş are famous for reproducing the forms and organizations of historical precedents in the context of place and time, are emulation. Emulation ensures the continuity of culture. The products of emulation can be defined as novel like Moussavi indicated.

4. Conclusion and Suggestions

The sense of time shaped by the effect of the intellectual environment of the period plays a grand role in shaping historicist styles in architecture. In this context, the characteristics of the relationship between predecessor and successor designs change in every period during the architecture history. Today, historicism, which is on the rise again in Turkey and even in countries where the architecture institutionalized earlier than Turkey, differs from other historicist styles in in the history of architecture. The context established when referring to the past and the context established architecturally vary from previous periods. In addition to this, new historicist wave, somehow, is similar in certain countries in terms of their structure, although they are fed by different cultural sources. Hence, the new architectural representation emerged recently has become an important research topic in the humanities, especially politics and sociology, with which architecture associated. Notwithstanding, in order to discuss the issue in the field of architecture, it is necessary to rebuild, expand and restrict its own conceptual framework within the perspective of the discipline of architecture by getting rid of the discourses and methods in other fields. New discussions in architectural theory can be extended by proposing new phonemena and conceptual proposals. In this

context, the study proposes new concepts of reproduction in architecture on the axis of history and originality.

When the intellectual trace of historicism in architecture is examined, it is seen that there are different assumptions about the phenomenon of precedent. A wide range of styles, from the idea that precedent is seen as a field of ideals, to its complete rejection, and then to approaches that aim to build a new spatial narrative as a guide, have also given examples in the Turkish architecture. Hence, the definition of originality has also taken shape. When the precedent, historical or not, is not completely rejected, originality can be associated with being unique, which includes certain images and qualifications. Examples that refer to the precedent differentiate formally and enhance their own architectural language by establishing a new context at the end of a creative process are original. The originality is not an ideal point or final stage, but a range determined by a myriad of points. It is possible to limit this range between being identical and not resembling any example. Therefore, originality is defined in a wider range.

The definition and extent of originality offer a scale for analyzing and classifying historicist examples. How similarity is achieved in productions where a historical building is taken as precedent affects originality. Analyzing historicist styles through their originality also allows us to discuss their status in the architectural sphere and their articulation to culture. For this reason, a new conceptual set is proposed in this study to define and analyze not only the historicist style of the 21st century, but also other historicist styles that reproduce form, organization, themes and/or typologies of precedent.

The analytical relationship between the concepts is based on the correlation between similarity and uniqueness. As similarity decreases, originality increases (or vice versa) and the range in which originality is defined provides an axis. The concepts of copy, citation, parody, exaggeration, collage/assemblage, emulation are a gradation of the similarity relationship between the predecessor and successor architectures, respectively, on the axis, at equal intervals, according to the similarity relationship established with this precedent. Copy is a direct, identical reproduction of the structure with the same proportion, size and material, hence same image occurs. The references of citation, parody and collage/assemblage are direct. However, parody and collage/assemblage can also be original related to their context. Emulation, on the other hand, is creating a novel product. Indirect references may even requite knowledge of place and time or precedent to follow. In other examples, however, the references are clearly traceable. Emulation reconstructs the contexts established by the precedent with reference to the place and time of the successor product (Figure 15).

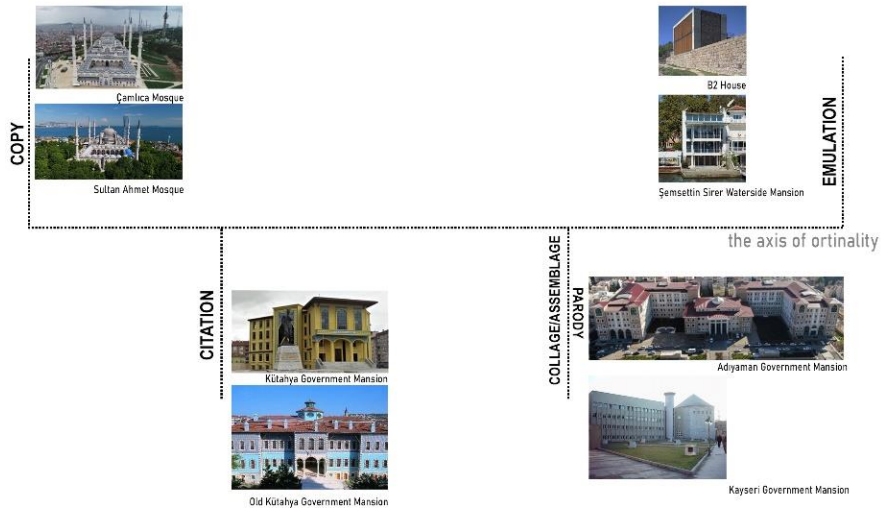

Figure 15. The axis of the originality

A qualification is provided by the ranking of the concepts in a certain order by highlighting the variations in reproduction techniques and the progressive shift in originality along this axis. The work can be positioned at a point on the axis by examining the relationship between reference and imitated form by using the reproduction concepts presented. In architecture, concepts, and methods for determining the originality of works are scarce, because of this, judgements can become subjective. Therefore, the proposed concepts are important for analyzing historicist approaches and evaluating originality, discussing implicit determinations on a scientific level and objectively assessing originality. In this study, no templates or canons are offered. On the contrary, it proposes a new perspective on the debates carried out in opposition to the idea that originality is perceived as a ideal point. The concepts are determined in the context of historicism and originality. The concept set can be expanded

with new contexts or new examples that will emerge. This study, which offers a new conceptual proposal for the analysis of architectural production, also constitutes a conceptual basis for new methods to be developed.

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An Overview of Sub-level Commercial Spaces on Bağdat Caddesi

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1. Introduction

Bağdat Caddesi, which is a 14-kilometer-long avenue with residential, commercial, service, health, and educational functions, is an important component of the urban landscape in the Anatolian side of Istanbul. While spaces for consumption are proliferating due to neo-liberal policies in global capitals, Bağdat Caddesi stands out for its spatial richness introduced by the commercial units located on the ground and basement floors of apartment buildings dating to the late 1960s and early 1970s. In this context, this article aims to argue that the diversity of architectural solutions in the commercial spaces enhanced with dynamic sub-level functions and sunken courtyards contributes to the urban identity of the thoroughfare by creating soft edges and establishing a human scale.

The current urban fabric of Bağdat Caddesi, characterized by commercial avenues on the ground and residential units on the upper floors, along with wide sidewalks that facilitate comfortable pedestrian movement, demonstrates a vibrant urban space attracting a diverse public. The coexistence of residential and commercial functions can also be considered as a key factor that contributes to the dynamism of the avenue (Firidin et al, 2018, p. 13).

In the conventional urban context, the boundary between a building and the street delineates the public and private realms. This two-dimensional edge, which forms the threshold between private and public space, can significantly enhance the quality of urban environment when transformed into a three-dimensional architectural entity. Such spatial depth is observed in the commercial units located at the ground and basement levels of the apartment buildings on Bağdat Caddesi, especially in the

Suadiye and Caddebostan districts. Here, the sloped terrain is utilized to introduce light into basement levels and create sunken courtyards, establishing sub-level shopping areas. Hence these structures, where residential and commercial functions coexist, display innovative use of elevation changes for rich spatial solutions, particularly in the treatment of the street boundary.

The spatial character of these retail spaces is also significant due to their repetition within the area, their role in defining a distinct urban fabric, and their contribution to spatial richness, thereby providing a unique urban pattern. Moreover, as these buildings incorporate varied spatial solutions that are subtly integrated into different elevations from the street level, they blur the boundary of the building as an urban threshold, offering a richer and more inclusive experience through the proliferation of space.

Rao, Dovey & Pafka (2018, p. 546) analyze traditional urban retail patterns and categorize them into four distinct types, which are market network, plaza/square/court, pedestrian street, and main street. They define "main street" as consisting of a pair of sidewalks separated by vehicular traffic (Rao, Dovey & Pafka, 2018, p. 547). Although according to this categorization, Bağdat Caddesi aligns with the "main street" retail type, the authors also assume that in this category, there is direct access from the sidewalk to the stores. Bağdat Caddesi, in this regard, disrupts this direct access, thereby emerging as a novel pattern. Therefore, it may be argued that this spatial characteristic contributes as a unique design element in shaping the shop-street relationship.

On the other hand, Bağdat Caddesi serves as the high street of the Anatolian side of Istanbul, if high street is defined as "the main shopping street" in a district or town (Griffiths, 2015, p. 34). According to Griffiths (2015) high streets possess the capacity to ensure historical continuity (p. 35) by generating "patterns of social co-presence, encounter and engagement" (p. 41) and contributes to social memory (p. 45). This collective memory is constructed not only through phenomenological but also through morphological means (Griffiths, 2015, p. 50). For the settlement around Bağdat Caddesi, this is particularly crucial, as it has lost its status as a summer retreat in the late 1970s, yet has retained certain elements of its resort character. Therefore, the architecture before mid-1970s serves as memories of its past. Within this framework, the multi-leveled retail units, which contribute to a distinctive urban character through stratification of commercial space, form a unique urban texture within the area that harbors historic and social significance.

The buildings, especially the apartment blocks dating to the second half of the 20th century in the region, have been thoroughly studied by multiple researchers. One of the earliest publications is the Master's thesis by Yazıcıoğlu (2001), in which she examined the residential architecture of the area from the 1950s to the 1970s. Another significant study is the article by Ekenyazıcı Güney and Tulum Okur (2021), which investigates the residential structures by architect Melih Koray, who constructed over a hundred buildings in the region during the second half of the 20th century. A further comprehensive study was conducted by Gönül (2021), who analyzed the façade characteristics of apartment blocks built between 1965 and 1973.

Despite these extensive studies on residential structures, research focusing on commercial spaces remains limited. In her Master's thesis Cemali (2011) examines the pedestrian movement along the avenue; yet while addressing the ground-floor commercial units, the multi-leveled spaces are only briefly mentioned without detailed spatial analysis. In a similar vein, Uzel (2018), in his Master's thesis, has explored transparency in street interfaces, focusing solely on street-level units and excluding those accessed via stairs. In her PhD thesis, Yazıcıoğlu Halu (2010) examines the walkability of the avenue and also addresses the multi-leveled spaces in terms of their specific semi-public and semi-private characteristics.

The literature study reveals that despite their architectural significance, these commercial units have not yet been the focus of detailed academic research. Therefore, it becomes imperative to understand the spatial features of these structures which are equally significant as the residential buildings in terms of bearing the potential of being recognized as cultural heritage.

In this context, the study aims to identify and analyze the morphological characteristics of these leveled commercial spaces, as well as to understand and describe their features, thus to highlight how these distinctive areas define architectural thresholds that transform into soft edges, thereby enhancing the spatial quality of the region.

In order to achieve this goal, the paper first introduces key urban concepts, such as soft edges, human scale, hybrid urban space, and mixed use, which help in identifying the spatial characteristics of the studied units. After the introduction of the study area and scope, presenting the

history of urban development and characteristics of the region as well as the boundaries of the research, the paper will present the analyses of five selected buildings, which exhibit distinct characteristics and which side by side form an urban pattern. The analyses are aided by drawings produced by the authors. After the presentation of analyses, the sub-level spaces will be discussed in relation to the concepts introduced beforehand. Thus, it is aimed to reveal the significance of preserving the spatial qualities that contribute to the avenue's urban identity.

1.1. Introduction of Urban Concepts

The sub-level commercial spaces on Bağdat Caddesi exhibit a distinctive spatial quality through the optimization of space and the utilization of basements which are underused areas. However, their benefits extend beyond spatial efficiency, since they are also significant for promoting socio-economic diversity and inclusiveness. Their mixed-use character and their nature as hybrid urban spaces, contribute positively to the local environment while they are also important in terms of establishing a human scale through the creation of soft-edges.

The sub-level commercial spaces and sunken courtyards within the interfaces of buildings bring dynamism and vitality to the area by drawing attention across the avenue (Cemali, 2011, p. 68). Additionally, Yazıcıoğlu Halu (2010, p. 343) argues these spaces offer spatial fluidity as versatile intermediary zones between public and private realms, accommodating various activities and functions. Thus, it is observed that these spaces connect to numerous design concepts that are relevant to contemporary urbanism, and many of which had been conceived during

the 1960s and 1970s, the very era in which these structures were constructed.

Thus, these commercial spaces can, in fact, be considered innovative within the context of post-war urbanism. While Modern Architecture advocated for the free-standing block and the zoning of functions, which resulted in the desolation of streets, the post-war period witnessed the emergence of architecture groups such as Team X, that promoted vibrant street life. Jane Jacobs was the leading theorist who challenged the planning ideals of Modernists and CIAM when she opposed the deserted streets and the free-standing block in her renowned work "The Death and Life of Great American Cities (1961)" to advocate for mixed-use buildings and lively streets. She was one of the first to use the term “mixed-use” (Alexiou, 2006, 3) while her publication “led to shelving large-scale urban renewal programs, helped kill the Le Corbusier-style “tower in the park” housing project design, and made “mixed-use” zoning mainstream” (Alexiou, 2006, 198). With her concept of “eyes on the street”, Jacobs endorses the inclusion of public uses such as shops, retail spaces, service areas within residential zones to ensure safer and more lively streets, thereby promoting diversity in both functions and users. Subsequently, the 1960s and 1970s witnessed the rise of mixed-used buildings, a concept that still remains relevant in today's urbanism.

Mixed-use structures are favored today for the complex and rich spatial features they offer. Holl (2014, p. 8) argues mixed-use buildings (or hybrid buildings, as he names them) provide “urban porosity” and aim to create pedestrian-friendly places. He further elaborates on the potentials of such designs to claim that they contribute to the development of public

space while offering “dynamics of section”, and acting as “social condensers for new communities” (Holl, 2014, p. 8). Thus, they function as powerful spaces for community engagement. Thus, while hybrids enable the optimization of plot utilization and revenue generation, they concurrently contribute to the revitalization of urban centers (Fenton, 1985, p. 5).

In opposition to the deserted and lifeless streets occupied by car traffic rather than human activity, Jan Gehl is another pioneer offering different perspectives in urban planning. When he published "Life Between Buildings" in 1971 (in Danish), he drew attention to the quality of the urban environment and the importance of having human activity in the streets, between buildings, to achieve vibrant urbanity. In this publication, among many strategies, he introduces the concept of “soft edges”, which are basically open and active interfaces between urban areas and buildings (Gehl, 1971/2011, p. 183). Soft edges are critically important for enhancing urban quality and play a vital role in the vibrancy of the urban environment as they are interface spaces that allow the public to spend time next to a building (Gehl, 1971/2011, p. 74-75, 183). These edges facilitate communication between the city and the buildings, as they connect and mediate the relationship between public and private areas, thus enabling their intersection (Genise, 2015, p. 59).

Gehl (1971/2011, p. 117, 185-197) especially emphasizes the importance of soft edges for residential buildings to create safer and more vibrant areas, and argues that commercial spaces, such as shops and restaurants, ensure that people stay and spend time in the public environment within residential districts. Furthermore, retail spaces are an effective strategy

for achieving soft edges, as they promote human interaction and encourage people to stay in the area longer (Gehl, 1971/2011, p. 28).

The importance of a permeable building-city interface has also been addressed by other scholars. In his discussion of the "open city" concept introduced by Jane Jacobs, Sennett (n.d., p. 8) identifies three strategies for designing such cities, one of which is the concept of "ambiguous edges". He employs the analogies of boundary/wall versus border/membrane to differentiate between a rigid, protected edge and a porous-interactive one. Sennett (n.d., pp. 9-10) clearly advocates for the latter, as it facilitates connections between various segments of the urban environment.

Christiaanse (2009) also highlights the importance of permeability for an open city, mentioning that it entails both accessibility and diversity. Jaoude et al. (2024, p. 724) similarly suggest that a porous city is fundamental to an open city, since it fosters diversity and facilitates interaction between various cultures. By sharing space and maintaining accessibility for all citizens, urban porosity allows new urban experiences and "guarantees the interaction and collaboration of diverse urban cultures" (Abou Jaoude, et al., 2020, p. 43).

To achieve porous, or soft edges, and ensure a human scale, the ground floor façades play a decisive role. Gehl (2010, p. 81) emphasizes the importance of transparent façades with the following words;

"City streets with soft edges have a significant influence on activity patterns and the attractiveness of city space. The transparent, welcoming and active façades give city space a fine human scale just where it means most: up close and at eye level."

Thus, the inclusion of a permeable transparent ground floor creates human scale, and hence more interaction. Gehl (2010, 81) states that "closed ground-floor façades" equal to "lifeless cities".

The formation of human-scale is especially important for larger structures. For this reason, Gehl (2010, p. 165) prescribes inserting smaller spaces within large ones to create a more modest scale. He recommends the inclusion of intermediary spaces, such as colonnades, archways, and rows of shops or cafés as these in-between elements "reduce the dimensions of the space" to establish human scale (Gehl, 2010, p. 165, 167).

The insertion of small facilities within residential structures also connects to the significance of public space around the buildings. In this regard, another key aspect is the existence of privately-owned-public spaces (POPs), which is a specific category in studies of urban space. To address the critical interaction between buildings and the city, the use of POPs has increasingly become a design policy in urban areas. These spaces, which are outdoor areas within private buildings, function as transitional zones between the public and private realms, integrating into the urban environment. In doing so, they enhance the quality of life within the urban landscape (Lee, 2022, p. 28).

The concept of POPs was first introduced by New York City's Department of City Planning in the 1961 Zoning Resolution as a consequence to the need for more public space in the dense urban fabric while the regulation aimed to guarantee access to light and air at street level despite the towering height of skyscrapers (Rădulescu, 2017, p. 104- 105). Rădulescu (2017, p. 105) notes that five types of POPs

emerged between 1968 and 1973, one of which is the “sunken plaza”. Although the multi-leveled spaces in Bağdat Caddesi are not large enough to be defined as plazas, it can be claimed that the sunken courtyards still connect to a concept relating to the public space strategy of the late 1960s.

Although initiated during the 1960s, POPs still represent a valid approach in today’s production of urban space with the private sector increasingly taking on the creation and maintenance of public spaces. In this context, they are employed as a strategy to create more and higher-quality public spaces, particularly in dense urban settings, fostering collaboration rather than privatization. Recent trends in architecture and urban planning have blurred the distinctions between public and private spaces, with each sphere adopting characteristics traditionally associated with the other (Cho et al., 2016, p. 5). Nonetheless, in today's complex urban fabric, these spaces which stand between the public and private realms are described using diverse terminology, as different scholars may employ various concepts to theorize on the subject. Thus, to define these intermediary spaces, new terms like "hybrid urban space" (Cho et al., 2016, p. 6) or “publicly accessible spaces" (Németh and Schmidt, 2011) have been introduced into literature. Németh and Schmidt (2011) refer to these areas as "publicly accessible spaces", since, although they are not publicly owned or managed, they are part of private entities but remain open to the public.

In today's versatile urban context, hybrid spaces also offer different typologies, one of which is vertical or multi-level open spaces as suggested by Cho et al. (2016, p. 8). Authors argue that multi-level

pedestrian spaces provide an "intensification of usage vertically" thus providing comfort for users, attracting people and offering "attractive new ways to perceive and experience the city (from above) and to redefine privacy" (Cho et al., 2016, p. 8). In this framework, multi-leveled spaces emerge as attraction points that offer a rich and versatile spatial experience.

2. Definition of the Study Area and the Scope

Before presenting the spatial characteristics of the buildings in the study area, it is imperative to understand the history of urban development in Bağdat Caddesi, which will also indicate why the sub-level spaces and sunken courtyards are advantageous for ensuring high quality urban spaces.

Bağdat Caddesi, which extends parallel to the Marmara Sea between Bostancı and Kızıltoprak neighborhoods on the Anatolian side of Istanbul, is an urban area characterized by a density of residential and commercial buildings. Beginning in the mid-19th century, the region served as a summer retreat for the Ottoman ruling class, wealthy foreigners, and Levantines while the recreational character persisted into the Early Republican Era with the establishment of beaches (Akbulut, 1994, pp. 333-334; Eyice, 1994, p. 530-531). The parcels belonging to large wooden mansions were subdivided, leading to the construction of summer villas, which were usually Modernist one or two storey residences with large gardens, built by prominent architects of the era (Arıkan, 2018, p. 79). Although a significant infrastructure development during this period was the paving of the road with asphalt from Bostancı

to the Fenerbahçe Junction after the 1930s (Eyice, 1994, p. 529), the settlement still did not display an urban character.

Kadıköy's first zoning plan, which allowed for the construction of three-story buildings up to a height of 9.50 meters, was introduced in 1952-1954 (Yazıcıoğlu, 2001, p. 52). This development led to the construction of two to three storey high buildings. However, the area still retained its character as a low-density summer retreat featuring detached houses with gardens and wooden mansions until the 1960s.

From the late 1960s to the early 1970s, the region, similar to other settlements in İstanbul, experienced a significant surge in building activity due to the introduction of the 1965 Condominium Law. The implementation of the 1/5000 scale "Bostancı-Erenköy Regional Development Plan" in 1972, which permitted a Floor Area Ratio of 1.8, allowed for construction with a maximum height of four stories (12.50 meters) along the coastline and five stories (15.50 meters) along Bağdat Caddesi (Yazıcıoğlu, 2001, p. 54). Additionally, the opening of the first bridge over the Bosphorus in 1973, which connected the two sides by motorway, was a notable event that further increased the population density of the region (Berkmen & Turgut, 2019, p. 158; Akbulut, 1994, p. 338). Consequently, the built area was multiplied by 2.5 times in the following ten years (Yazıcıoğlu, 2001, p. 57). Thus, during the 1960s and 1970s, there was substantial construction activity in the neighborhoods surrounding the avenue, and the urban fabric that dominated the area until the urban transformation process accelerated in the 2010s, took shape during this period. A significant number of

buildings constructed on the avenue in this era were typically four to five stories high apartment blocks in a detached layout.

Buildings constructed during this period serve as documentary examples of a particular period in residential architecture, representing Late-Modern design approaches. Sey (1998, p. 34) argues that, with the proliferation of apartment block construction after 1950, cities in Turkey adopted a homogenous urban pattern and lost their "distinctive architectural characteristics". However, these apartment buildings are particularly significant as they stand apart from this urban "homogenization" and, as Görgülü (2016, p. 173) considers them, are "meticulously designed structures" with "high-quality architecture". They especially define a unique architectural identity through their characteristic façade designs which include travertine claddings, sunshades, elaborate balcony railings, wall panels and planters embedded within a geometrically-articulated façade composition (Gönül, 2021). A specific study conducted by Tulum Okur & Ekenyazıcı Güney (2022), analyzing the balcony railings as a design element, represents further understanding on the configuration of the façades through a specific architectural element.

This history constructs a picture of the region in the late 1960s and early 1970s as a residential area with high-quality detached apartment buildings of four to five storeys with commercial functions on the ground floor of the ones that are located directly on the avenue. Therefore, it may be instructive to trace the development of the commercial spaces in the thoroughfare to construct a clearer picture.

2.1. The Development of Commercial Spaces on the Ground Floors of Residential Buildings on Bağdat Caddesi

As the region displayed a summer resort character with sparse habitation up to the 1960s, there were limited commercial activities. In the few remaining apartment buildings constructed before the 1965 Condominium Law, there is no evidence of any commercial function on ground floors, and it is observed that the majority of the buildings, including ground floors, are primarily residential. In fact, the scarcity of commercial space is evidenced by the unofficial name given to the area, which is Şaşkınbakkal. The world is literally translated as "bewildered grocer" referring to a shopkeeper who opened his grocery in the area in 1932 when it mainly consisted of fields and very sparsely distributed mansions (Dölen, 1995, p. 138). A movie theater, named Atlantic Cinema, which also accommodated retail shops on the lower levels, was built at the place of the grocery during late 1960s (Cellek, 2017). Today a big international retail store, which was constructed in 1995, stands in its place. The transformation of this single plot, indeed, perfectly represents the transformation of the area.

When the settlement began to get more crowded and to lose its summer resort character, more commercial units were opened. With the 1970s, it is observed that Şaşkınbakkal became more lively and new shops opened in the area due to its transition from being a summer resort to a place lived in throughout the year (Dölen, 1995, p. 138). Thus, Şaşkınbakkal emerged as a prominent shopping area, supported by new commercial functions (Sabuniş Dölen, 1995, p. 50). These new developments rendered the region a prominent center for both shopping and

entertainment facilities (Dölen, 1995, p. 138). From 1965 onward, it is observed that the ground floors of residences, especially those along the avenue and main thoroughfares, began to harbor commercial functions. Specifically, in the section between Şaşkınbakkal and Caddebostan, many of the buildings on the avenue had their ground floors allocated for commercial use. Beginning in the 1980s, the number of commercial units along Bağdat Caddesi increased, and not only ground-level stores in apartment buildings but also large retail stores or shopping complexes began to serve as commercial venues. By the late 1990s and early 2000s, stores of national and international brands opened, making the avenue one of the most popular destinations for high-end shopping. Today, the area is one of the main shopping streets in Istanbul, serving as a mixed-use area harboring both commercial and residential activity.

2.2. Urban Transformation and the Loss of Urban Character

The region surrounding Bağdat Caddesi has been going through an urban transformation process that accelerated in the 2010s. The enactment of Law No. 6306 on the Transformation of Areas Under Disaster Risk in 2012 (Resmî Gazete No. 28498) and the introduction of a 25% additional Floor Area Ratio in Kadıköy, where the Floor Area Ratio is 2.07 (Resmî Gazete No. 28664), have spurred a rapid process of urban transformation. Consequently, earlier structures, primarily Late-Modern apartment buildings from the late 1960s and early 1970s, are being replaced with new, taller structures, that exhibit a contemporary design approach. This transformation affects not only residential buildings but also commercial spaces, as well as mixed-use buildings, altering the character of these structures and obliterating the Late-Modern

architectural features within the settlement. Therefore, it is increasingly important to study and document the unique, architecturally significant buildings and spatial characteristics in this region.

2.3. Materials and Method

In literature, the sub-level commercial spaces with sunken courtyards have been underexplored. To address this research gap, five buildings have been selected to study in detail to demonstrate their spatial characteristics and to evaluate their contribution to the spatial quality of the region.

The criteria focused on selecting buildings which,

- were constructed during the same period, the late 1960s and early 1970s, which also marks the acceleration of building activity as explained before.
- demonstrates different characteristics, such as featuring more than one courtyard, being a corner building, and having different spatial geometries; thereby enabling analyses of their peculiar characteristics, which arise from their distinct architectural features.
- are neighboring buildings, so that it is easier to identify the urban pattern characteristics that they bring to the region. This selected urban piece was the only place that had such buildings in adjacent plots that helps to examine how these neighboring structures collectively define an urban pattern.
- include one that has been demolished and rebuilt to monitor the differences.
- include one that is at the north of the avenue, as most of such structures are located at the south of the thoroughfare.

The method of the study involves conducting spatial analyses through drawings made by the authors and evaluating the spaces through relevant urban qualities to understand their contribution to the urban pattern.

The initial step was to collect data from Kadıköy Municipality and to re-draw the plans and cross-sections of the buildings in digital format based on the projects obtained from the municipal archives, so that the spatial characteristics are expressed in an architectural language.

Then, architectural features have been evaluated in terms of concepts introduced at the beginning of the paper, which can be summarized as hybrid urban spaces, human scale, soft edges, public space, open city, and mixed-use complexes.

The spatial characteristics of structures are addressed in the following section.

3. Spatial Characteristics of Sub-Level Shopping Areas

Figure 1 illustrates the locations of the selected buildings, all of which are officially within the Suadiye neighborhood, while the unofficial name of the district is Şaşkınbakkal, as mentioned before.

Figure 1. Map Showing the Location of the Studied Buildings on Bağdat Caddesi.

All the selected structures are apartment buildings constructed between 1968 and 1973; a period marked by intense construction along the avenue. One of these buildings (Lütfiye Apartment, number 4 in Figure 1 and Figure 2) was demolished and rebuilt in 2022. Since this reconstruction is significant for understanding the transformation of these spaces over time, inclusion of this building in the study was crucial for examining the evolution of the urban character.

Details regarding the construction year and architect of the examined buildings are presented in Table 1 below.

Table 1. Information about the studied buildings (photographs: Number 1, 2, 3, 5 by authors, 2024; number 4: Google Maps, 2014 and 2023). The information about buildings is obtained from (Kadıköy Municipality Planning Department Archive).

(In Turkish, different from English, the term "apartment" refers to the building, not the single residential unit, or flat. Therefore, the buildings are called, "Yener Apartment," "Ay Apartment," ... to stick to the original Turkish names).

	Name	*Address*	*Date*	*Architect*	*General View*
1	Yener Apartment	Suadiye, Bağdat Cad., No:374	1970	Lütfü Özin	
2	Ay Apartment	Suadiye, Bağdat Caddesi 372 ve 370	1968	Lütfü Özin	
3	Erker Apartment	Suadiye, Bağdat Cad., No:368	1970	Melih Uğurlu	

4	Lütfiye Apartment / Lütfiye Hanım Apartment	Suadiye, Bağdat Cad. 364/Noter Sokak, 21	1973 / 2022	*The architect's name is not legible in the documents* / Fatih Küpoğlu (Konsept Mimarlık)	 
5	Biçener Apartment	Bağdat Cad., No:355	1972	Melih Koray and Ergin Gömüç	

The site plan below (Figure 2) was developed by juxtaposing the urban plan with the architectural drawings of the buildings obtained from the archive of Kadıköy Municipality. It illustrates the location and basic characteristics of the sunken courtyards, their relationship with each other, and their continuity within the urban fabric.

Figure 2. Plan of Buildings (aerial view) and the leveled retail spaces with the sunken courtyards. The black arrows indicate the entrances to the residential units (drawing by Gönül, 2024).

The leveled commercial spaces exhibit similar layouts, although there are variations in their design characteristics. These design similarities and differences are outlined below.

3.1. Mutual Spatial Features

All the buildings feature four residential and two commercial floors (the ground floor and basement). In order to maximize the size of the commercial units on the front façade, the entrances to the apartment buildings are positioned to the side (apartment block doors are indicated with arrows on the plan in Figure 2). The commercial units in the basements are accessible via sunken courtyards, which are reached by one or two staircases, depending on the location and the building's width (Figure 3). This design results in a spatial arrangement where ground-floor units are accessed not directly but via bridges from the street.

Figure 3. Ay Apartment (photographed by authors, 2024).

The layouts of the retail spaces are highly consistent, while two neighboring buildings, Yener Apartment and Ay Apartment were in fact designed by the same architect (Figure 3). The larger courtyards accommodate food and beverage establishments at the basement level, promoting extended stays and fostering interaction. All shops are arranged to ensure visibility from each other, thereby creating a cohesive visual flow within the courtyards. Similarly, pedestrians walking along the avenue can visually connect with the shops on the lower levels (Figure 4).

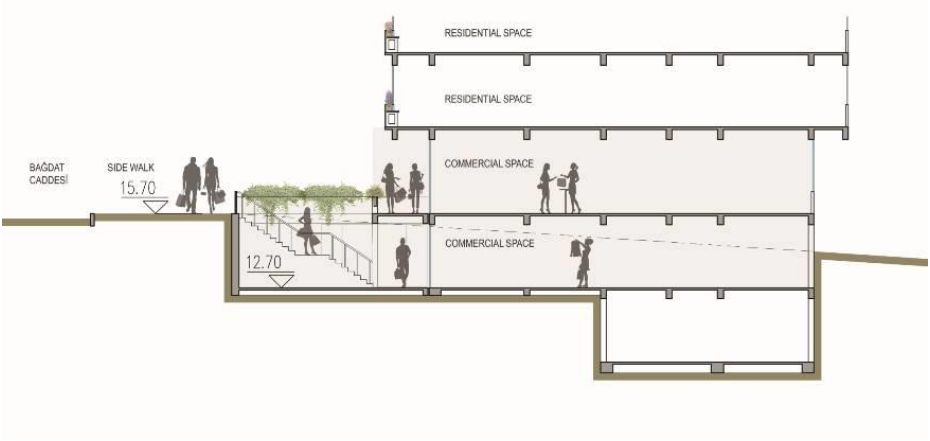

Figure 4. Cross-section of Ay Apartment (drawing by Gönül, 2024) with the material obtained from Kadıköy Municipality Planning Department Archive.

All of the courtyards are sunken approximately three meters below the street level, aligning the ground floor with the sidewalk (Figure 4). However, due to the sloped sidewalk in this region, some buildings, such as Ay Apartment, incorporate a slightly inclined ramp for access to the ground-floor shops. However, none of the buildings include ramps or facilities designed for individuals with disabilities or the elderly (Figure 5).

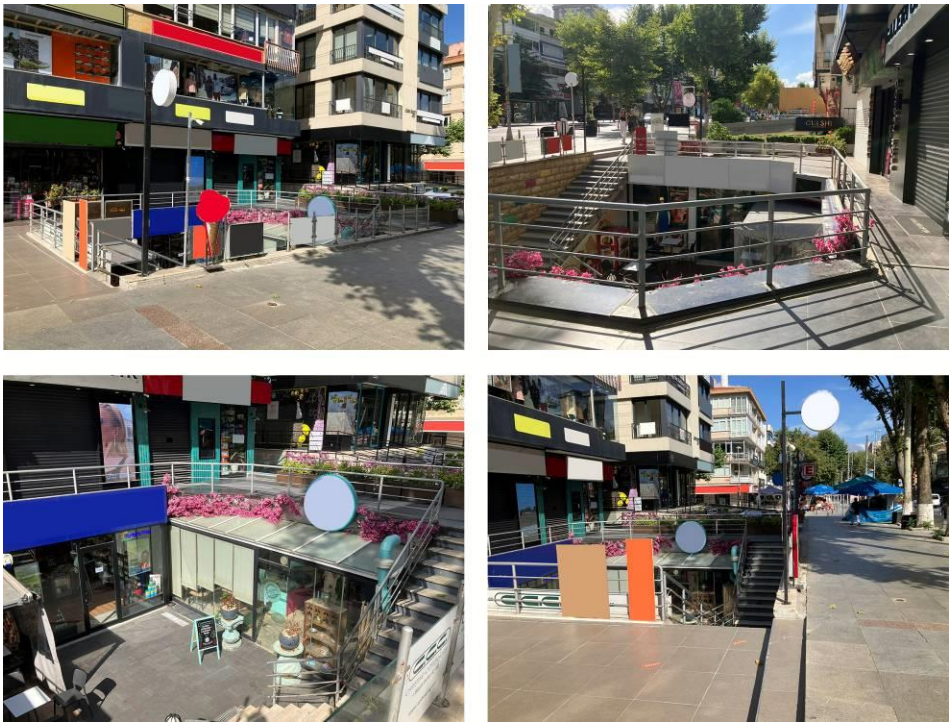

Figure 5. Erker Apartment (photographed by authors, 2024).

Although the upper floors were originally designed as residential spaces, many of these areas have since been converted into commercial establishments, which include doctor's offices, aesthetic clinics, law offices, insurance companies, notaries, hair salons, and other small businesses. The presence of shops and office signs as well as billboards obscures the visibility and comprehension of the building's architectural features, making it challenging to appreciate its design elements.

3.2. Distinct Spatial Features

In addition to their mutual characteristics, the buildings also exhibit nuanced design choices. Two of the buildings deviate slightly from the typical typology because they are located on corner lots at the intersection of Bağdat Caddesi and Noter Sokak. One such building is

Biçener Apartment (Number 5 in Figure 2). This structure consists of two blocks, each featuring shops on the ground floor and a large market in the basement, connected by stairs (Figure 6). This spatial arrangement transcends the typical "commercial spaces below residential units" model and the building, in fact, has been nearly transformed into a marketplace. Indeed, since the upper floors have also been entirely converted to commercial use, the building is now commonly known as Biçener Çarşısı.

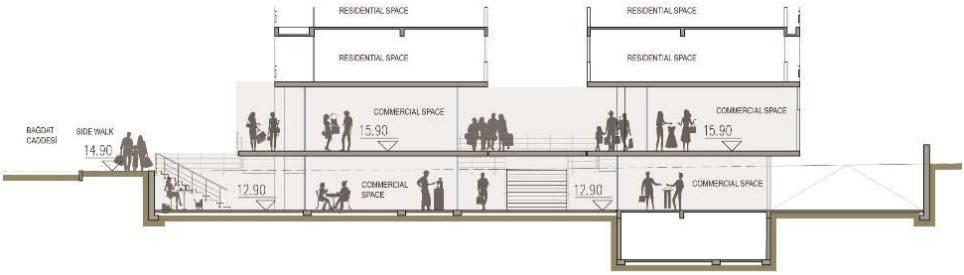

Figure 6. Cross-section of Biçener Apartment (drawing by Gönül, 2024) with the material obtained from Kadıköy Municipality Planning Department Archive.

In this structure, the basement is situated 2 meters below street level, which elevates the ground-floor shops by 1 meter above the avenue (Figure 7). This elevation provides a unique perspective that distinguishes it from other buildings. Also, because the building is at the intersection of the avenue and a side street, commercial space is maximized with entrances on both sides. Another distinctive feature of Biçener Apartment is that the ground and basement floors are exclusively dedicated to commercial units, providing an uninterrupted commercial area and visual continuity that extends to the rear of the parcel both visually and functionally.

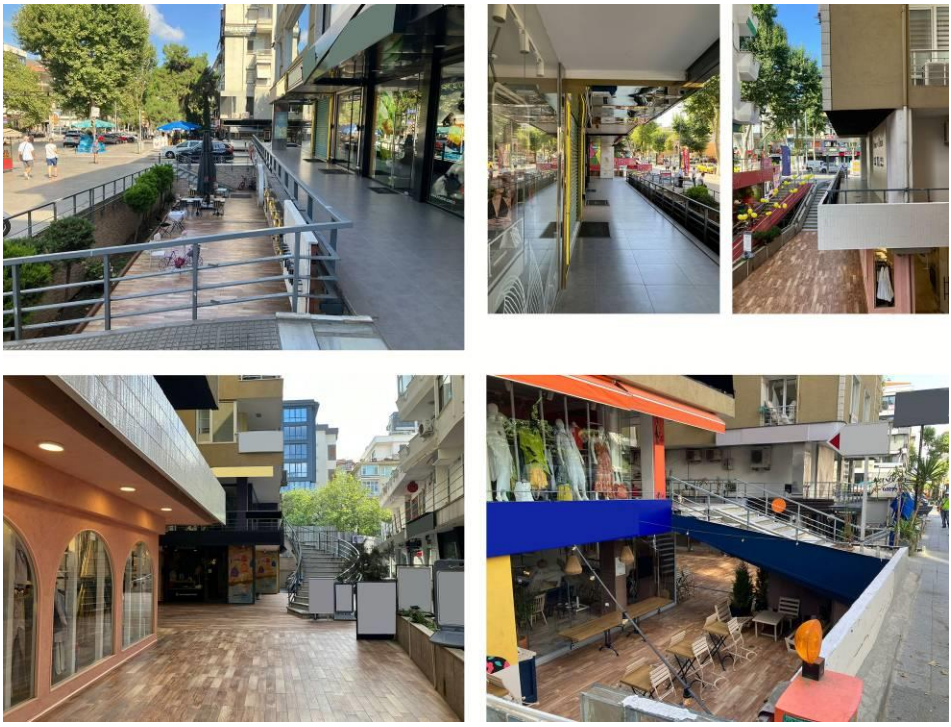

Figure 7. Biçener Apartment (photographed by authors, 2024).

Another distinctive building is Lütfiye Apartment (Number 4 in Figure 2). According to the project in the municipal records, it originally featured a two-story arcade located at the ground and basement floors. However, it seems this arcade has not been used as originally designed, although the exact timing of this change is unknown. The lower entrance of the arcade has been closed off at an unknown time, making this building functionally similar to the others.

Similar to Biçener Apartment, Lütfiye Apartment is located at the intersection of the avenue and a side street. The row of shops in the basement extending to Noter Sokak benefits from natural light due to the elevation difference, which is addressed with retaining walls to extend the sunken courtyard. However, in the new project built in 2022, the front

courtyard facing Bağdat Caddesi has been completely enclosed, eliminating the sunken courtyard. Furthermore, the ground floor is elevated, therefore the stores facing Bağdat Caddesi are accessed via stairs and a ramp. This organization has enabled the stores facing Noter Street to be closer to ground level, therefore the elimination of the sunken courtyard also there. Despite the intention to maintain the same character on the side street, subsequent closures have resulted in the structure resembling any row of shops, causing it to lose its distinctiveness. The original project design and its final state regarding the Noter Sokak façade can be observed in Figure 8.

Figure 8. Lütfiye Apartment (upper image by GoogleMaps, 2023; below image photographed by authors, 2024).

In the new building, more commercial units were implemented in the facade facing the adjacent parcel. Although there is a narrow sunken

open space facing the adjacent building lot, it does not possess the same spatial quality as the courtyards facing the avenue, as it more closely resembles a passage than a courtyard.

Moreover, the fact that the upper floors of this building were originally designed as residential units conveys the intention to sustain the mixed-use character, yet the fact that they are currently occupied by commercial and service functions presents another interesting aspect.

Today, these buildings continue to function as commercial areas, although some of the sunken courtyards have been enclosed by food and beverage establishments, causing them to lose their original open character. The balustrades of some of the buildings have also been altered. For example, Ay Apartment originally featured aesthetically pleasing built-in planters instead of balustrades (Figure 4), but additional metal railings have been added on top of them, disrupting the original design (Figure 3). Additionally, the multitude and diversity of store signs contribute to a cluttered appearance, obscuring the sleek, minimalist, and Late-Modernist design.

4. Evaluation: Leveled Retail Spaces as Contributors to the Urban Identity of Bağdat Caddesi

The analyses demonstrate that the multi-leveled retail spaces on Bağdat Caddesi are significant for several reasons. They stand out for their innovative spatial characteristics and their contribution to urban life. The notable spatial attributes that enhance spatial quality are outlined below.

Optimization of Space and Utilizing Underused Areas

This unique architectural design optimizes space, especially in densely populated urban areas. By utilizing sub-level spaces, they capitalize on

basement floors, which are often underused areas, for both commercial and public purposes. This approach not only maximizes spatial efficiency but also offers significant benefits by enhancing urban functionality and vibrancy. Besides, design considerations for sub-level spaces, such as improving the natural light access, creates a welcoming atmosphere.

Socio-Economic Diversity and Inclusiveness

Although these designs may appear primarily driven by economic efficiency and profit motives, the shops located on the lower levels are small and usually local independent enterprises, as evidenced by the absence of any large retail stores. This setup fosters a socio-economically diverse environment, providing a more inclusive experience for a broader range of public. Thus, despite the fact that the stores which are not located in ground-level receive less footfall (Cemali, 2011, p. 90), they still provide an opportunity for smaller and/or local business, therefore enhance the diversity and inclusiveness of the area.

In line with the creation of a holistic scenario for the future of Bağdat Caddesi, a workshop was organized in 2017 in partnership with Mimar Sinan Fine Arts University Faculty of Architecture and the Anatolian Side Construction Contractors Association (AYİDER). Academics, experts, civil society representatives, and business owners participated to discuss matters like transportation, public space, architectural identity and to determine new visions regarding the avenue.

In this workshop, it was one of the suggestions that small retailers within commercial units should be supported by relevant architectural designs at the building scale to ensure spatial diversity (Firidin et al. 2018, p. 17). Another insight was that the local governments should intervene in

architectural designs to prevent the spread of large, multi-storey stores, ensuring that small shops also have a presence on the street. Thus, it is evident that these sub-level spaces comply well with these proposals, therefore contribute to the diversity of the area.

Benefits of Mixed-Use Complexes

Another important characteristic is the hybrid, mixed-use nature of these complexes. As noted by Rao, Dovey & Pafka (2018, p. 554), mixed-use developments contribute significantly to the vibrancy of urban areas. The authors further assert that "main streets can be revived with higher densities of shop-top housing while maintaining diversity of ownership and public control" (Rao, Dovey & Pafka, 2018, p. 554).

Although a large number of apartments have been converted into retail spaces since 2010s, these buildings were initially constructed as mixed-use structures and some continue to be built in this way. Despite this, in the future visions, it is anticipated that residential use on the avenue will gradually be replaced by commercial and service functions while the exclusive presence of commercial uses will lead to the avenue becoming a generic space, consumed by daily users, and will result in security issues due to decreased pedestrian activity on the street after shops close (Firidin et al., 2018, p. 13). In a study conducted in 2019, it is observed that during the urban transformation process, when a residential building with shops on the ground floor is demolished, the newly built structure harbors office units instead of residential ones on the upper floors, because it increases the rentability of the properties (Kurban, 2019, 105-106). This process entails the transformation of residential units into commercial ones and may obliterate the mixed-use character of the

region. Thus, the homogenization of the structural functions of the avenue threatens the identity of distinctive spaces and the neighborhood's character (Firidin et al. 2018, p. 14). However, as it is vital to promote mixed-use functions to sustain lively environments, it is imperative that the residential use along the avenue should be preserved, and its continuity should be ensured (Firidin et al. 2018, p. 17).

Benefits of Hybrid Urban Spaces

It has already been stated that the urban pattern in question harbors diverse functions and morphology. Moreover, the diversity within these complexes extends beyond functional uses to encompass the public/private realm since these sub-level courtyards, although privately owned and maintained, function as public spaces. In this context, they exemplify what Cho et al. (2016, p. 6) describe as "hybrid urban spaces", which are both public and private, and represent a new kind of urbanism in densely populated urban spaces. They are, in this regard, can be evaluated as a POP with their mix of public and private characters. The significance of POPs in the development of urban areas and their contribution to the urban environment as catalysts of public spaces and human interaction have already been introduced at the beginning of the paper. These spaces also employ another strategy, the sunken courtyard, employed by POPs. The fact that their construction dates are parallel to the emergence of POPs in the global context, also demonstrates how they cope with the standards of their era.

Furthermore, POPs, or hybrid urban spaces, are still prevalent in today's urbanism, constituting a strategy for vivid environments (Cho et al., 2016). This proves that these spaces are still significant in today's urban

context. On the other hand, in the contemporary urban discourse, it is the growing interest in public space that has led to the emergence of these hybrid spaces, where the intersection of public and private realms, as Madanipour (2019) suggests, enhances and expands the scope of public space. Within this framework, they can be regarded as a great strategy in the region where the public spaces are not considered adequate in terms of quantity and quality (Firidin et al., 2018, p. 26). In a similar vein, in the workshop on Bağdat Caddesi conducted in 2017, it was suggested that not only public spaces, but also private ones (such as shopping malls and stores) should be addressed within the scope of public space (Firidin et al., 2018, p. 26). Correspondingly, Yazıcıoğlu Halu (2010, p. 341-343) suggests that these multi-level designs are intermediary spaces, which stands between public and private realms. Furthermore, they are also important in terms of ensuring continuity within their ground floors, hence they contribute to the quality of the urban environment (Yazıcıoğlu Halu, 2010, p. 343).

Acting as intermediary spaces between public and private realms, sunken courtyards are also notable for providing public spaces that are more tranquil and secluded. Cho et al. (2016, p. 91) point that that sunken spaces provide noise protection, and contribute to shielding against noise pollution in busy areas, hence, that constitutes another beneficial aspect that these spaces provide in the crowded thoroughfare. By being accessible via stairs, they create a retreat from the bustling main avenue, offering more intimate environments.

Cho et. al. (2016, p. 6) also suggest that multi-leveled spaces are an urban space typology that has not been studied enough and that “we still know

too little about", yet they are found in existing and newly constructed buildings to acquire "the role of civic places". In this regard, they are still unconventional spaces (Cho et al, 6). It is important that such unconventional designs had been constructed as early as 1960s in the area, demonstrating that they are innovative projects worthy of being declared as architectural heritage.

Human Scale and Soft Edges

These spaces also provide a human scale to the urban environment by transforming the building-city interface into a habitable space. Their unique design activates the building edge, transforming it into a retail space, defining a "soft edge."

The importance of soft edges in terms of urban quality has already been stated. The concept of soft edge has been brought into discussion as early as 1970s by Gehl, and it is still a valid and significant point in today's urbanism and architecture, being also a constituent in the Open City concept.

Lively and active edges enhance urban life by defining interface areas as zones for interaction and experience. Thus, they connect and mediate the relationship between public and private areas while this interaction guarantees a vibrant and secure urban environment. Soft edges are also significant in terms of establishing human scale, as observed in these structures, which offer multi-level spaces of interaction within the eye level, thus succeeding at providing human scale.

The permeability of the ground floor, encompassing both visual and functional connections, plays a critical role in shaping the relationship between a building's mass and its surrounding environment. These

connections are instrumental in encouraging public interaction with the building and in fostering activity around its façade, thereby contributing significantly to the establishment of a human scale. Gehl (2010, p. 232) argues that integrating public activities at the ground level is a key strategy for achieving a human scale, a factor that becomes increasingly important in large-scale or high-rise structures, particularly within dense urban settings. The utilization of sub-level shops and food and beverage venues at a lower level in Bağdat Caddesi, establishes a connection between users of these spaces and pedestrians walking along the path, bringing liveliness to the thoroughfare (Cemali, 2011, 89). On the other hand, the building façades are also realms of interface, and they can be treated as identity elements in the creation of the street's unique pattern in terms of the street-private space interface (Firidin et al., 2018, p. 28). Thus, once again, the sub-level commercial spaces demonstrate that they are innovative structures for their time that they offer soft edges on their interface, and that their spatial design is still valid for today's urban concepts and challenges.

Accessibility Considerations

Lastly, a critique towards these spaces concerns accessibility, as the presence of stairs poses challenges for the elderly and disabled. Not only these spaces, but the generality of the urban space in the settlement offers limited access to people with disabilities to outdoor and indoor public spaces (Firidin et al., 2018, p. 26).

When these structures were initially built, there may have been less awareness of these issues, but contemporary design sensibilities demand greater accessibility today. This raises the question of how to create more

accessible spaces while preserving the original character. The implementation of universal design criteria, in this regard, poses an important consideration for future studies.

5. Conclusion and Suggestions

This paper evaluated five unique apartment buildings with multi-leveled shopping areas on their ground and basement floors, which were constructed between the late 1960s and early 1970s on Bağdat Caddesi. These structures present a distinct typology which receives daylight in the sub-level shops through sunken courtyards made possible by the utilization of sloped terrain. With this design, they not only optimize space through the employment of underused areas but also contribute to urban vitality by fostering socio-economic diversity.

The distinct architectural features, the sunken courtyards and the sub-level shops, also enhance urban life by offering tranquil spaces. Additionally, these design elements provide human-scale environments that encourage pedestrian activity and social interaction, while they present soft edges in the urban context, which renders the urban realm both more lively and secure. Their status as public spaces maintained by private ownership renders them as hybrid urban spaces, and for this they not only align with innovative urban design concepts of their era but also with the contemporary urbanism principles emphasizing publicness and inclusiveness. On the other hand, the limited accessibility the sub-leveled spaces offer as the stairs pose an obstacle for disabled individuals and the elderly, is unfavorable in the context of contemporary urbanism.

With current demands, preserving the initial design intentions presents a significant challenge while the alteration of original architectural features

such as balustrades and the transformation of upper floor residential units into commercial spaces transform the existing architectural pattern. Nevertheless, maintaining the mixed-use characteristics of these buildings seems crucial for preserving both the identity and the liveliness as well as the security of the area.

In the future visions of Bağdat Caddesi, it is anticipated that the avenue's commercial function will not only be maintained but also amplified. However, although they contribute to the avenue's vibrancy, retaining the commercial function on the ground floors of new buildings is insufficient to preserve the urban identity of the region. In this regard, the urban transformation along Bağdat Caddesi poses a significant challenge, which not only accelerates density but also transforms the urban and architectural characteristics of the area. To prevent the loss of urban character, the innovative architectural features of sub-level retail spaces should be acknowledged while these structures might be recognized as architectural heritage.

As soft edges and intermediary spaces are characteristics that make the street distinct and unique, it is also essential to incorporate these features into new constructions to preserve the street's unique identity. In this regard, it would be beneficial if measures are initiated to sustain this urban trait during the urban transformation processes, so that the spatial features can be maintained during the construction of new buildings to preserve the unique urban character. Otherwise, the absence of these intermediary spaces, which were so pivotal in the Late Modern architecture of the 1960s and 1970s, may reduce the urban interface to a two-dimensional boundary, thus limiting the spatial experience.

In conclusion, the architectural designs of the leveled commercial spaces on Bağdat Caddesi offer valuable insights into the spatial richness of mixed-use urban spaces, as well as the significance of intermediate spaces and soft edges in establishing a unique urban character. By learning from the successes and challenges of these leveled retail spaces, designers can better handle the complexities of urban renewal, ensuring that future developments are not only economically viable but also culturally and socially enriching. This case study, then, may serve as a reminder of the importance of preserving the unique architectural identity and urban character of the region.

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The article complies with national and international research and publication ethics.

Ethics Committee approval was not required for the study.

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The Artistry and Ecological Synchrony of Planting Design: From Conceptualization to Floral Composition in the Case Study of Sivas Urban Park

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1. Introduction

With the rapid growth of the global population, the pace of urbanization has also accelerated. This modern urbanization process is characterized by its heterogeneous, complex, and ecologically fragmented nature, largely driven by construction activities that significantly alter the physical environment and disrupt natural systems (Andersson, 2006; Ok, 2019; Ok et al., 2024). As a result, there is an increasing need for recreational areas where people can connect with nature and escape the pressures of urban life (Yasak et al., 2020). Open and green areas in urban landscapes provide numerous ecological, physical, social, and aesthetic benefits, serving as essential components of sustainable urban living (Bilgili, 2009; Şahin, 2008). Furthermore, research consistently shows that time spent in nature enhances overall quality of life, strengthens social bonds, and promotes both mental and physical well-being (Cooper & Barnes, 1999; Elings, 2006; Kingsley & Townsend, 2006; Ok et al., 2024). Therefore, these spaces play a vital role not only in improving urban living conditions but also in fostering a harmonious relationship between humans and nature (Gül & Küçük, 2001; Köse & Şahin, 2019).

One of the major environmental challenges today is the growing population, industrialization, and the replacement of urban open and green area with buildings and related infrastructure. The reduction of these urban green areas poses a significant threat to the future of cities by disrupting the ecological balance (Eroğlu et al., 2005). In the context of urban ecology, open and green areas hold critical value. The primary contributors to the ecological health of these areas are plants, which play an essential role in supporting biodiversity, enhancing air quality, and regulating

microclimates. These plants not only improve the aesthetic and functional aspects of urban landscapes but also act as vital agents in addressing environmental issues such as urban heat islands, water management, and habitat fragmentation.

Urban ecosystems differ from natural ecosystems due to factors such as dense construction, industrial activities, high population density, and land use patterns designed to suit urban living. These distinctions negatively impact the survival and growth of plants in urban environments, underscoring the need to approach plant management in cities with special attention (Dirik, 1991; Eroğlu et al., 2005).

Planting design, which involves the selection, arrangement, and care of plants, is a fundamental discipline in landscape architecture (Arın, 2010; Gülersoy & Türkoğlu, 2000). As defined by Arın (2010) and Scarfone (2007), planting design is the process of combining various plant species into a cohesive whole. After defining the design concept and introducing park elements, the next step is to analyze the specific characteristics of each plant to understand the effects they produce within the overall design. Furthermore, planting design fosters a continuous connection between people and their surroundings by safeguarding crucial ecological systems amidst various changes, and by creating or restoring natural environments. Natural plant communities and vegetation formations play a pivotal role in crafting spaces that meet user needs while reestablishing balance between humans and nature (Arın, 2010).

This study forms part of the larger project titled "Recreational Development Integrated with Ecological Sensitivity and Flood Control in the Kızılırmak River Corridor of Sivas City," conducted by Şahin et al.

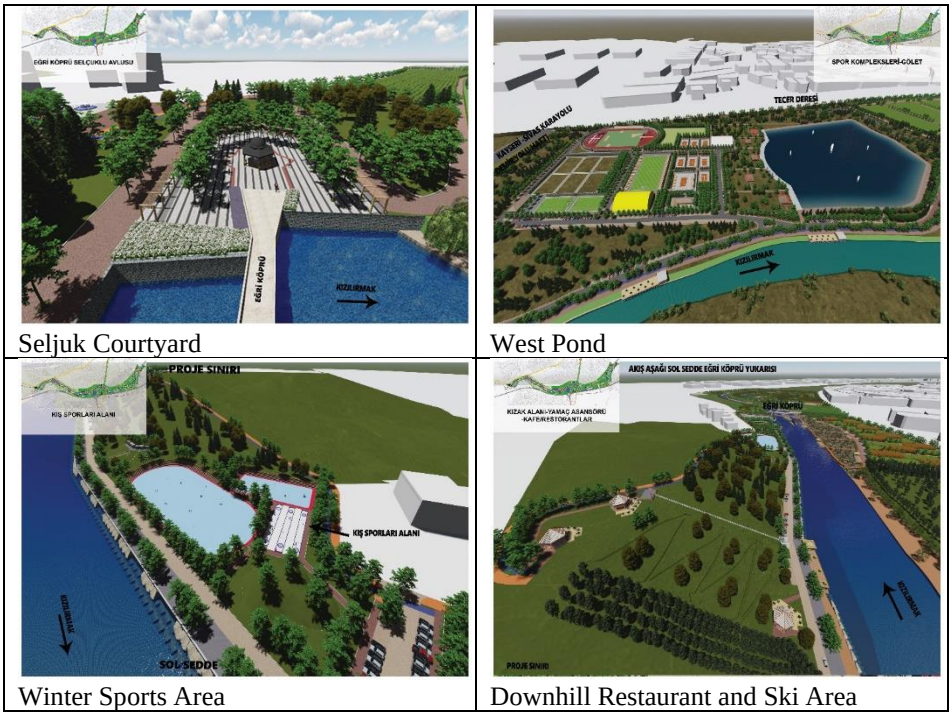
(2017). As part of this initiative, an ecologically sensitive urban park design was developed, grounded in a landscape plan that prioritizes the ecological integrity of the river corridor (Şahin et al., 2017). The artistry of planting design within the project was achieved by establishing a distinct thematic approach for the different functional zones. The plant species selection was meticulously aligned with the design theme, with primary emphasis on incorporating native vegetation from the region. Additionally, careful consideration was given to species adapted to the specific environmental conditions of the site, particularly in relation to the local temperature zone. This approach ensures both ecological harmony and aesthetic composition, reflecting the dual focus on artistry and ecological synchrony in the park's planting design.

2. The Project Area and Spatial Areas of Planting Design

The project area encompasses the 480-hectare Kızılırmak River corridor, situated to the south of Sivas city center. Specifically, the study area covers an approximately 8 km-long and 600 m-wide stretch of the river corridor, extending between the historical Kesikköprü to the west and Eğriköprü to the east, including the micro-basins connected to the river. This river corridor has been designated as a green area in the Sivas City Master Plan, highlighting its importance for urban ecology and recreational use. Additionally, the project area consists of a riverside landscape characterized by flat to nearly flat topography, which further supports its suitability for green area development and landscape interventions.

Throughout the entire project area, specific planting design principles have been developed for different functional zones. This study focuses on the planting design themes and species selections for some of the main

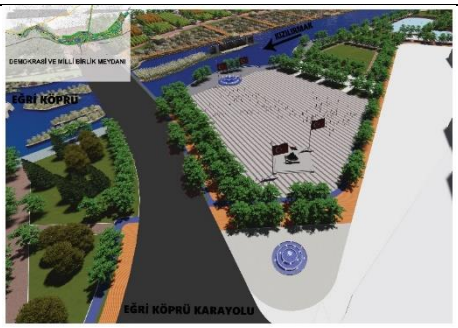
specialized design areas. The specialized design areas are shown in Figure 1. The designs presented in the figure are 3D renderings based on a 1/2000 scale preliminary plan developed within the scope of the whole project entitled "Recreational Development Integrated with Ecological Sensitivity and Flood Control in the Kızılırmak River Corridor of Sivas City". The landscape design for the project was led by Prof. Dr. Yalçın D. Memlük, with consultancy provided by Prof. Dr. Halim Perçin. The 3D renderings of preliminary plan were prepared by landscape architect Ferhat Özden, a member of the project team. The planting design for the specialized areas was developed by Prof. Dr. Şükran Şahin at 1/500 scale. In the following section planting design decisions were given.



Seljuk Courtyard | West Pond

Winter Sports Area | Downhill Restaurant and Ski Area

Figure 1. Specialized planting design areas



Democracy and National Unity Square

South West Picnic Area

Sport Areas

University Square and Martyrs Park

Figure 1. Specialized planting design areas (cont.)

3. Findings and Discussion

3.1. Planting design decisions

In determining the plant species for the project, particular attention was given to the climatic conditions of Sivas, with a focus on selecting frost-resistant and low-maintenance species. Emphasis was placed on using plant species naturally found in the study area, ensuring ecological coherence with the local environment. Given the long cold and snowy winters typical of Sivas, the planting design aimed to incorporate plants that provide a warm color effect, thereby enhancing the visual appeal during the colder months.

The planting principles and the specific plant species used in the different design areas of the study are outlined in detail below. These principles reflect both the ecological considerations of the site and the aesthetic goals of the project, ensuring that the design is not only sustainable but also visually engaging year-round.

Seljuk Courtyard

- Effect/Idea/Symbol: Respect for History
- Colour: Yellow steppe colour, red
- Dominant Tree: *Platanus orientalis*
- Shrubs and groundcovers: *Iris caucasica* 'Turcica' (25 x 25 oval, on raised beds), *Juniperus communis, Juniperus sabina, Papaver orientale* 'Turkenlouis'
- Climbing plant: *Rosa rampicanti*
- Entrance Signal Plant: *Cupressocyparis leylandii*

West Pond

- Effect/Idea/Symbol: Water mirror, bird and butterfly populations, edible plants and fragrance
- Colour: Mauve
- Dominant Tree: *Acer platanoides, Pinus sylvestris, Platanus orientalis*
- Scented Plants: *Jasminum nudiflorum* (yellow flower), *Lavandula x intermedia* (mauve flower), *Lonicera tatarica* (pink flower), *Rosmarinus officinalis* (mauve flower)

- Plants that provide colour effect / Plants that attract butterflies: *Buddleja davidii* (mauve flower), *Colutea arborescens*, *Cotinus*

coggygria ‘Atropurpurea’ (pink flower), *Lycium barbarum* (mauve flower), *Syringa vulgaris* (mauve flower), *Tamarix germanica* (pink flower), *Vitex agnus-castus* (mauve flower)

- Bird Attracting Plants: *Rosa canina, Rubus fruticosus*
- Tecer Stream Wetland Plants: *Carex riparia and Juncus sp* (sparse), *Tamarix germanica*

Winter Sports Area

- Effect/Idea/Symbol: Presence of attractive outdoor activities on snowy and cold days
- Colour: White, red, yellow, orange, mauve
- Dominant Tree: *Platanus orientalis*
- Plants Providing Colour Effect: *Berberis thunbergii* ‘Atropurpurea’ (red leaf), *Daphne oleoides* (white flower), *Jasminum nudiflorum* (yellow flower), *Kniphofia hirsuta* ‘Fire Dance’ (red flower), *Lycium barbarum* (mauve flower), *Pyracantha coccinea* (orange fruit), *Sempervivum sp, Yucca filamentosa* (white flower)

Downhill Restaurant and Ski Area

- Effect/Idea/Symbol: Winter City Sivas
- Colour: White
- Dominant Tree: *Pinus nigra, Pyrus elaeagnifolia, Taxus baccata*
- Shrubs: *Juniperus chinensis* ‘Pfitzeriana’, *Philadelphus coronarius, Viburnum opulus* ‘Sterile’

Democracy and National Unity Square

- Effect / Idea / Symbol: Homeland
- Colour: White and red

- Dominant Tree: *Platanus orientalis*
- Groundcover: *Daphne oleoides* (white flower)
- Shrub: *Berberis thunbergii 'Atropurpurea'* (red leaf)
- Note: Grass cover is provided under trees and shrubs.

South West Picnic Area

- Effect/Idea/Symbol: Peace and Family Warmth
- Colour: White and red
- Dominant Tree: *Acer platanoides*
- Privacy and Windbreak Plants: *Colutea arborescens subsp. Cilicica, Cotinus coggygria 'Atropurpurea', Juniperus communis, Philadelphus coronarius, Sambucus nigra*
- Note: Bee-attracting plants should not be used.

Sport Areas

- Effect/Idea/Symbol: Vitality
- Colour: Multicoloured (red, white, yellow, blue, mauve)
- Dominant Tree: *Catalpa bignonioides, Plantanus orientalis, Prunus cerasifera 'Pissardii', Tilia tomentosa*
- Shrubs and groundcovers: *Berberis thunbergii 'Atropurpurea'* (red leaf), *Cornus alba 'Sibirica'* (red bough), *Cotinus coggygria 'Atropurpurea'* (red effect), *Erica carnea* (red flower), *Forsythia intermedia* (golden yellow flower), *Juniperus chinensis 'Pfitzeriana', Juniperus squamata 'Blue Carpet', Kniphofia hirsuta 'Fire Dance'* (red flower), *Mahonia aquifolium* (dark red leaves and blue fruit), *Pyracantha coccinea* (orange fruit), *Sempervivum sp, Tamarix germanica* (pink effect), *Vitex agnus-castus* (mauve flower)

University Square and Martyrs Park

- Effect / Idea / Symbol: University Square: Science Flame
- Martyrs Park: Remembrance
- Colours: Red and yellow-black
- Dominant Plant: *Platanus orientalis*
- Shrubs and Groundcovers: Red effect: *Berberis thunbergii* *'*Atropurpurea*'* (hedge line by cycle path), *Pyracantha coccinea* (under trees), *Salvia splendens* (green line on the side of the cycle path on the bridge)
- Yellow effect: *Achillea millefolium, Iris sp.* (yellow flowering), *Sedum acre* *'*Golden Queen*'* (in a 3 m wide area from the edge of the square)
- Black effect: *Ribes nigrum* (black fruit)

3.2. Landscape Design Plant Material General Characteristics

The plant species incorporated into the planting design for the study area, along with their general characteristics, are presented in the Table 1.

The Table provides information on plant characteristics, including light requirements, crown width, height, and colouration period/colour. These parameters are critical in the context of planting design, as they directly influence the visual and functional aspects of the landscape. Light requirements ensure that plants are placed in locations where they can thrive, while crown and spread width help determine the spatial arrangement and density of plantings. Height is a key factor in creating vertical layering within the design, contributing to the overall structure and aesthetic of the landscape. Lastly, the colouration period and colour are important for seasonal interest and visual appeal, helping to create

dynamic and engaging outdoor spaces throughout the year. Together, these factors contribute to a cohesive and ecologically sound planting strategy.

Table 1. General characteristics of plants used in landscape design

Scientific Name	**Light Request**	**Crown Width**	**Height**	**Colouration Time/ Colour**
Deciduous Trees				
Acer platanoides	Light/ half shadow	8 m.	12 m.	Autumn/orange-yellow-brown
Acer pseudoplatanus	Light/ half shadow	8 m.	20-25 m.	Autumn/light yellow-red
Aesculus carnea	Light	8-12 m.	10-15 m.	Autumn/yellow brown/red flower
Aesculus hippocastanum	Light/ half shadow	8 m.	12 m.	Spring/white flower
Betula verrucosa	Light/ half shadow	10 m.	20-30 m.	Spring/yellow
Catalpa bignonioides	Light	8 m.	12-15 m.	Early summer/white flower
Crataegus monogyna	Light/ half shadow	4-8 m.	4-8 m.	Spring/summer/cream-coloured flower
Elaeagnus angustifolia	Light	3-6 m.	5-7 m.	Silvery
Fraxinus excelsior	Light/ half shadow	8-12 m.	15-30 m.	Autumn/yellow
Platanus orientalis	Light	5-7 m.	30-40 m.	-
Populus alba	Light	10-12 m.	30-35 m.	White
*Prunus cerasifera "*Pissardii*"*	Light	8 m.	8-12 m.	Spring-summer/dark red
Prunus serrulata	Light	4-5 m.	10-15 m.	Spring/red pink flower
Pyrus elaeagnifolia	Light	3-4 m.	7-10 m.	Spring/white flower
Quercus rubra	Light/ half shadow	8-15 m.	25-30 m.	Autumn/red-brown-orange
Robinia hispida	Light	3-4 m.	5-7 m.	Spring-summer/ pink flower

Scientific Name	**Light Request**	**Crown Width**	**Height**	**Colouration Time/ Colour**
Robinia pseudoacacia	Light	8-10 m.	20-30 m.	Spring-summer/ white flower
Sophora japonica	Light/ half shadow	10-12 m.	20-25	Summer/ White-pink-yellow
Salix babylonica	Light	10-15 m.	10-15 m.	-
Tilia tomentosa	Light/ half shadow	10-12 m.	20-30 m.	Summer/yellowish white flowers
Evergreen Trees				
Cupressus arizonica	Light/ half shadow	4-6 m.	25 m.	-
Cupressus pyramidalis 'Glauca'	Light/ half shadow	2.5-3.5 m	12-18 m.	-
Cupressocyparis leylandii	Light/ half shadow	6-7 m.	20 m.	-
Cupressocyparis leylandii 'Gold Rider'	Light/ half shadow	5-8 m.	12-15 m.	-
Picea pungens 'Glauca'	Light/ half shadow	8 m.	20 m.	-
Picea orientalis	Light	6-8 m.	15-20 m.	-
Pinus nigra	Light	8 m.	35-40 m.	-
Pinus sylvestris	Light	8-10 m.	40 m.	-
Deciduous Shrubs				
Buddleja davidii	Light/ half shadow	2.5-4 m.	2.5-4 m.	Summer-autumn/mauve flower
Colutea arborescens subsp. Cilicica	Light	2.5-4	2.5-4	Yellow flower
Cornus alba var. Sibirica	Light/ half shadow	1.5-2.5 m.	1.5-2.5 m.	Spring-summer/cream-coloured flower
Cotinus coggygria . "Atropurpurea"	Light	3 m.	2.5 m	Autumn/red
Forsythia intermedia	Light	1.5-2 m.	2.5-3 m.	Spring/golden yellow flower

Scientific Name	Light Request	Crown Width	Height	Colouration Time/ Colour
Jasminum fruticans	Light	-	1.5-3 m.	Spring/yellow flower
Jasminum nudiflorum	Light/ half shadow	1.5-2.5 m.	1.5-2.5 m.	Spring-Winter/yellow flower
Lonicera tatarica	Light/ half shadow	-	3 m.	Spring/pink flower
Lycium barbarum	Light	1-1.5 m.	1-3 m.	Spring-summer/mauve flower
Philadelphus coronarius	Light	1.5-2.5 m.	1.5-2.5 m.	Spring/white flower
Ribes nigrum	Light	-	2 m.	Summer/autumn-black fruit
Rosa canina	Light	-	1-2 m.	Spring/summer-white-pink
Rosa sp	Light	0.5-0.8 m.	1-2 m.	Spring
Rubus fruticosus	Light	4-8 m	1.5-2.5	Summer/autumn-black fruit
Sambucus nigra	Light/ half shadow	1-2 m.	2-3.5 m.	Spring/white flower
Syringa vulgaris	Light/ half shadow	4 m.	3-7 m.	Spring/white-lilac-pink flower
Tamarix germanica	Light	-	1.5-2 m.	summer - autumn/pink flower-leaf
Taxus baccata	Light/Half Shadow/Shadow	8 m.	7-15 m.	red pseudofruit (female plants)
Viburnum opulus "Sterile"	Light/Half Shadow/Shadow	2.5-4 m.	3-5 m.	Spring-summer/white flower
Vitex agnus-castus	Light	1.5-2.5 m.	1.5-2.5 m.	Autumn/mauve flower
Evergreen Shrubs				
Achillea millefolium	Light	0.5-1 m.	0.5-1 m.	Summer-Autumn/yellow flower

Scientific Name	Light Request	Crown Width	Height	Colouration Time/ Colour
Berberis thunbergii "Atropurpurea"	Light/ half shadow	-	1.5-3 m	Spring/yellow flower and red trunk
Buxus sempervirens	Light/ half shadow	4-8 m.	4-8 m.	Spring/yellow flower
Cotoneaster nummularia	Light/ half shadow	-	0.5-1.5 m.	Spring/red
Daphne oleoides	Light/Half Shadow/Shadow	0.1-0.5 m.	0.1-0.5 m.	Summer/white flower-autumn/red fruit
Euonymus japonica	Light/ half shadow	2.5 m.	2-5 m.	-
Euonymus japonicum "Aurea"	Light/ half shadow	1.5 m.	2-2.5 m.	Yellow leaf
Juniperus chinensis 'Pfitzeriana'	Shadow/ half shadow	1.3-1.5 m.	1.5-2 m.	-
Juniperus squamata 'Blue Carpet'	Light/ half shadow	1.5-2.5 m.	0.1-0.5 m.	-
Juniperus sabina	Light/ half shadow	1.5-2.5 m.	1-1.5 m.	-
Juniperus communis	Light/ half shadow	2.5-4 m.	4-8 m.	-
Lavandula x intermedia	Light	0.5-1 m.	0.5-1 m.	Spring/lilac colour - silvery leaf
Ligustrum japonicum	Light/ half shadow	2.5-4 m.	3-6 m.	Summer/white flowers-autumn/blue purple fruit
Ligustrum vulgare	Light/ half shadow	2.5-4 m	2.5-4 m	Autumn/black fruit
Mahonia aquifolium	Shadow/ half shadow	1.5 m.	1.8 m.	Winter/orange-red/spring-yellow
Pyracantha coccinea	Light	1.5-2.5 m.	1.5-2.5 m.	Summer/red - orange fruit
Rosmarinus officinalis	Light	0.5-1 m.	1-1.5 m.	Spring-Summer/mauve flower
Yucca filamentosa	Light	-	1-1.8 m.	Summer/white flower
Effective plants with their flowers				
Kniphofia hirsuta 'Fire Dance'	Light/ half shadow	-	-	From spring to summer/red-yellow flower

Scientific Name	Light Request	Crown Width	Height	Colouration Time/ Colour
Galium odoratum	Half shadow	1-1.5 m.	0.1-0.5 m.	Spring/white flower
Iris caucasica 'Turcica'	Light	0.5-1 m.	0.5-1 m.	Summer/yellow flower
Papaver orientale 'Türkenlouis'	Light	0.1-0.5 m.	0.1-0.5 m.	Spring and summer/red
Evergreen/Semi Evergreen Ground Cover				
Ajuga reptans	All types	0.5-1 m.	0.1-0.5 m.	Purple
Erica carnea	Light/ half shadow	0.1-0.5 m.	0.1-0.5 m.	Spring and Winter / red flower
Fragaria vesca	Light/ half shadow	0.1-0.5 m.	0.1-0.5 m.	Summer/red fruit
Sedum acre 'Golden Queen'	Light	0.5-1 m.	0-0.1 m.	all year/yellow trunk
Sempervivum sp	Light	0.1-0.5 m.	0.1-0.5 m.	all year/purple-red trunk
Salvia splendens	Light	0.1-0.5 m.	0.1-0.5 m.	from spring to autumn / red flower
Evergreen Waterfront Plants				
Carex riparia	Light/ half shadow	1 m.	1-1.5 m.	-
Juncus sp	Light	-	0.5m-1.5m.	-

4. Conclusion and Suggestions

In conclusion, this study emphasizes the intricate interplay between artistry and ecological synchrony in the planting design of Sivas Urban Park. By carefully selecting and incorporating native plant species, the design not only enhances the ecological resilience of the area but also preserves the cultural and natural identity of the region. The selection process, guided by a strong ecological framework and a clear thematic

vision, illustrates how planting design can strike a balance between environmental sustainability and aesthetic expression, enriching both the landscape and the user experience.

The project further underscores the importance of adopting an integrative approach to planting design, where ecological considerations are deeply embedded in the artistic composition of the landscape. Prioritizing species suited to the local temperature zones and environmental conditions ensures that the design is not only visually compelling but also sustainable in the long term. This approach reflects a comprehensive understanding of the region's ecosystem, contributing to the design's ecological and aesthetic harmony.

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The article complies with national and international research and publication ethics.

Author Contribution and Conflict of Interest Declaration Information

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Searching Colour Dimension of Anonymity in Architectural Design: A Review on "Architecture Without Architects Exhibition"

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1. Introduction

This study aims to examine which features of the anonymous architecture, which has influenced the design process in architecture especially since the end of the 19th century and the beginning of the 20th century, have come to the fore in this influence, and whether the colour dimension is one of these features. Secondly, through this point of view, it aims to search for the ambiguous characteristics of colour, which is often ignored in architectural education, placed in side compartments and seen as a complement within the framework of habits, in the boundaries of architects' use of the acceptance of certain styles and movements.

"James Gibson mentions the perceptual relationship between the outer world and the human inner world is natural and without hindrance. Gibson and Noë regard man as ecologically integrated in a world, where appearances are genuine features of the environment; hence colour and light, in Gibson's ecological sense, are natural but non-physical We know nothing more except that they exist and give us impressions and order in time and space. (Arnkil (ed.), Fridell & Klarén 2012)

The scientificisation of research on colour, a sensation that is 'natural but not physical' (Stanford Encyclopedia of Philosophy, 2023) takes place in the world defined as modern. Especially in the period covering the last three centuries, which is described as the Anthropocene (Crutzen & Stoermer, 2000) era, the use of colour takes its place in the hierarchical relationship established by man with the world, which prioritises his own existence, and in the fiction aimed at understanding and controlling it. Industrialisation, chemical industry, mass production, etc. with significant changes, the presence of colour in every field of human production affects

its presence in the field of architecture. This definition refers to the period in which human activities have transformed nature in irreversible ways. The Anthropocene also accounts for an understanding of space and the urban environment where nature can no longer be separated from the technical operations of humankind (Lecomte,2013).

As a European-based approach during the Enlightenment period, the desire to free thought from historical authorities, to be based on reason and experience about knowledge and life, and to form the intellectual and philosophical foundations of the new society and human construction In the 17th and 18th centuries, art and cultural education trips to France, Italy and Greece, especially by young Englishmen, customised the so-called Grand Tour.

In the last three hundred years, with the movement of people and goods, the definition and location of the local has diversified. The importance of these trips is that they took place in recent history. Of course, in addition to the trips of the West to its own East, i.e. the Mediterranean and Asia Minor, its trips to other geographies are also within the research limits of this study.

'Orientalism' (1978), the first of a trilogy on the West's view of North Africa, the Near East and the Far East, written by Edward Said, is one of the works that will initiate the most important debates of the 20th century. In the book, which analyses a 4000-year-old network of cultural relations, the author focuses on culturally constructed distinctions between the Occident and the Orient and argues that the West constructs the Orient as an imaginative geography rather than a natural one, and that this view is

political.' (Rani, 2013). But is not every gaze a construction? And is not every thought political?

As we will be talking about anoymous architecture similar of non-pedigreed architecture as Bernard Rudofsky offers, we will mainly try to seek the architecture that 'tells not the official but the private history of a culture" as Sybil Moholy Nagy also implies. (Heynen, 2008)

The concepts such as local/ /non-pedigreed/spontaneous in the architectural thought and reflection of Western modernism and its aftermath will be examined with examples from which geographies the anonymous architecture, which is argued to be based on the 'intrinsic' by the author of this study, is associated with. The definitions of what belongs to the anonymous in the European-based view will be drawn with its interpretation and this framework will constitute a channel to understand how much the colour of the anonymous is expressed in design.

2. Material and Method

The methodology of the study is qualitative and the starting point is Bernard Rudofsky's 1964 exhibition titled "Architecture Without Architects". In a sense, this is because 'in canonical historiography of architecture, Rudofsky's exhibition can be regarded as the official beginning of the field of vernacular architecture studies. (Jiménez-Vicario, Martinez & Ródenas López, 2018)

Through the effect created by the exhibition and the texts written on the exhibition, data on the colour dimension in anonymous references will be investigated. In reaching these data, the architects' discourses and drawings obtained from written sources will be consulted.

Since the date of this exhibition, which we can perhaps say represents the zeitgeist, a great number of disquisitions from the last decades have revealed different case studies that offer an archetype of the synthesis between the vernacular and the modern in order to rewrite the historical storyline of modern architecture.

Actually, Rudofsky proposed this exhibition to MOMA in 1944. However, her proposal was revived 20 years later with the support of some architects. Similarly, Sibyl Moholy-Nagy, another European architect and one of the important female designers of the Bauhaus, after migrating to the U.S.A., focused on a subject that no one was interested in in the face of the ongoing fascination with high modernism and the International Style in America, and in her book titled 'Native Genius in Anonymous Architecture in North America' published in 1955, which had a limited impact in her period, she examined anonymous architecture in the U.S.A. and documented regional, vernacular and local architectural examples photographically. (Alagöz & Güner, 2022).

The term non-pedigreed used in the exhibition 'Architecture without Architects', which Rudofsky uses for all buildings that stays out of the industrial construction techniques used by trained professionals and the industrial construction techniques used by them, has been accepted as an umbrella term for titles such as indigenious, primitive, spontaneous, vernacular, rural.' (Chanis, 2023).

With the emergence of sub-expansions in the 1950s of meta-concepts such as identity, context, regionalism, place, fragmented, memory, which started to be used in the 1930s, the interpretation of the anonymous - which

seems to be expanding but in reality is shrinking - has become different in the architectural agenda, especially by the autonomous architects.

“Since the Enlightenment, it was the need using the premodern or foreign cultures for shortcomings in their societies: the avant-gardes, and architects such as Le Corbusier, Ludwig Mies van der Rohe, and José Luis Sert studied anonymous architecture to set a new way of architectural expression.

Luke Jones defines “Architecture Without Architects” in his work titled “Afterthoughts on Vernacular and Spontaneity (2018)” a defence of the architectural ‘vernacular’ — which it defines as essentially everything that is; outside the canon of architectural history, free from entanglement in industrial supply chains and highly picturesque in effect.” (Jones, 2018).

3. Findings and Discussion

In the study, the texts written on Rudofsky's exhibition which is based on the story of non-pedigreed architecture- mainly about anonymous form and construction, accepting nature as a basis and aiming to draw an intellectual framework for life, secondly the concepts of vernacular/non-pedigreed and anonymous and a 20th century vision related to them will be analysed. The presence of the colour dimension in this data will be sought. Finally, the place of colour in the anonymous architectural inspirations in the approaches of autonomous architects will be searched.

3.1. Anonymous and Bernard Rudofsky's "Architecture Without Architects" Exhibition

MOMA's 1964 announcement includes the following text:

“When we think of architecture, we think of impressive structures, from temples to skyscrapers, designed by great names. But there is a dissent, put

forward by Bernard Rudofsky, a 59-year-old architect, engineer and philosopher, in an exhibition called “Architecture Without Architect,” that opens Wednesday at the Museum of Modern Art. In his view, architecture is also the far-flung, unfamiliar world of “non-pedigreed” buildings—primitive, spontaneous, vernacular and rural. It ranges, as the examples on these pages show, from simple, indigenous building and functional construction to natural formations adapted to man's uses.

This Anonymous Architecture, says Rudofsky, has virtues of harmony, efficiency, utility and beauty that frequently surpass more famous examples. The show also reveals the unself-conscious work of untrained builders using natural resources and materials to produce forms so close to abstract art that they give pure esthetic pleasure to the eye. (Rudofsky, 1964).

The exhibition consisted of approximately 200 enlarged photographs mounted on series of "hollow walls" and a 128-page book with 156 illustrations, written by Rudofsky, (Museum of Modern Art Press Release, 1964).

He made a note about illustrations in the catalog where the same images were enlarged for the exhibiton consisting 200 photographs:

“The picture material for this exhibition is inevitably beset with uncommondifficulties. With the exception of the archives of European anthropological institutes, no pertinent sources exist. Many illustrations were obtained by chance, or sheer curiosity, applied to the subject and sustained over forty odd years. Methodical travel and long years of residence in countries that afforded a study of vernacular architecture have provided the main stays of the exhibition. Some of the illustrations are not

up to professional standards;most of them are the work of inspired amateurs or were culled from the pages of obscure publications." (Rudofsky,1964) (Figure 1).

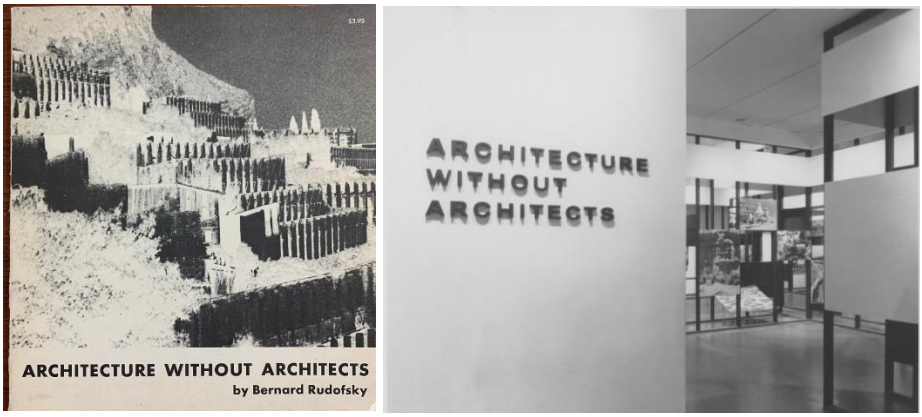

Figure1. Left, Cover of The Book. (Condello, 2015). Right, A Photo from the exhibition (Museum of Modern Art -MOMA Press Release,1964)

As seen all of the images were black-white due to the time where it was not common or expensive to take coloured photographs. Since the archive waited twenty long years to be exhibited, the tecnical qualities of the photographs were not satisfactory.

Let us write down the subheadings of the exhibition where Bernard Rudofsky created a way of seeing as he gathered photos-especialy the taken aerial- under some similar form-based, geograpy based, building method based or only name mentioning topics. As we see, all examples are free from a canonical approach in terms of creating the scheme of the exhibition just like its content:

The amphitheaters of Muyu-uray, Houses for the dead, Ordek's necropolis, The troglodytic town of Pantalica, Dwellings Below Fields upstairs, Nature as architect, Architecture by subtraction, The choice of site,

Architectural eyries, Italian hill towns, Cliff dwellers of the Dogon, Aquatic architecture, Nomadic architecture, Primeval forms, Architectural mimicry, Town structures, Unit architecture, The classical vernacular, Fortified places, Family-size fortifications, The fortified villages of Svanetia, Arcades, Arcades, continued, Covered streets, Semicovered streets, Loggie, Quasi-sacral architecture, Granaries continued, Small-capacity granaries, Storage towers, Storage Fortress, Fertilizer plants, Engineering without engineers, Pile dwellings, Skeletal architecture, The air-conditioners of Hyderabad Sind, Celestial architecture, Symbolic vernacular, Ungarnished castles, Grass structures, Wood in vernacular architecture, Enclosures, Rural architecture, Woven palaces, Movable architecture, Vegetal roofs, The primeval vault, Sail vaults, Mason versus architect, Vernacular virtuosity, Caryatids plain and polychrome.

We understand from the information at the end of the catalogue that 22 of the photographs presented with these titles were taken by Rudofsky. In the texts of the photographs, lanscape features, the effect of settlements as textures giving the effect of pointillism or textures creating flexible geometries, light and shadow effects due to construction techniques, load-bearing properties due to the material, materials forming the building elements, the relations established with the ground (underground, above the pilots, etc.), the practical uses brought by the form, forms with symbol value are described. Colour references are given in very few places in the texts; for example, he mentions the sculpturalism created by the combination of Bedouin tents in the desert made of black goat hair or white lime-painted houses and dark volcanic rocks in Apanomeria. Again he compares the steps in Göreme Castle, which cast shadows in all the

white effect, to footprints in the snow, he mentions that the holes made by man for pigeons are painted red and orange. From this point of view, we can say that he refers the colour effect rarely concerning the places in some of the photographs he took himself or the photographs he took from other sources. We do not know whether the sources he quoted colours had annotated texts or were his own enriched interpretations.

He made a quotation from D. H. Lawrence who lived around 1912, on Lake Garda, Italy: "Upon the mountain slopes steep by the lake, stand the rows of naked pillars rising out of the green foliage like ruins of temples: white, square pillars of masonry, standing forlorn in their colonnades and squares .as if they remained from some great race that once worshipped here. Saying that characteristically, a poet, not an architect, discovered the charms of this exotic architecture., and there wrote his essay The Lemon Gardens" (Rudofsky, 1964)

The last title in the catalogue, 'Caryatids, plain and polychrome', depicts uprights carved out of wood into human shapes. Is it surprising that no information on the colours or symbols of these obviously polychrome painted wooden elements is given? Rudofsky here only emphasises the polychromy, but does not open the text to information on the use of colour.

"Bernard Rudofsky (Suchdolnad Odrou, Moravia 1905–New York 1988) as an architect, was at the margins of high modernism but nonetheless shared the obsessions of the age. He relied on the lessons provided by the collective wisdom of generations of form-makers and users, one he saw encapsulated in traditional design. Technische Hochshule Wien, where he had graduated in 1928, by studying vernacular structures of foreign civilizations.

Thus he championed indigenous Mediterranean buildings and traditional Japanese houses as models to emulate. His doctoral thesis on Cycladic structures, “Eine primitive Betonbauweise auf den südlichen Kykladen, nebst dem Versuch einer Datierung derselben” (A primitive concrete building technique of the southern Cyclades, and an attempt to date it), completed in 1931 at the Technische Hochschule Wien, complemented the watercolors.” (Bedard, 2008).

In 2008 an elegant exhibition organized by the Architekturzentrum Wien and the Getty Research Institute (GRI) in association with the Canadian Centre for Architecture (CCA) outlined Rudofsky’s career and theoretical interests. Jean-François Bédard in his article titled ‘Learning from Bernard Rudofsky, makes rather satisfactory and detailed critics about this exhibition held in 2008 which consists of six sections, mentioning exhibition can be criticised for being fed from a single source mainly- the Getty Foundation. Bedard concludes his article with these lines; “with the recent, increasingly abstract architectural forms generated by parametric design, the engineered sensory control of the new environments demanded by the “experience economy,” or the disastrous consequences of hypercapitalistic urban development at a global scale, Rudofsky’s plea for a truly humane art of living might indeed be more relevant than ever.” (Bedard, 2008).

In this reproach, the tool belonging to the technique, that is, the parametric design that reinforces abstraction, is addressed as a problem. However, in 1944 Rudofsky glorified the examples of non-pedigreed architecture he encountered in different geographies with the analogy of upper abstract art.The truth is it is a fact that the technique-where we have to search

deeper- serves the hyper capitalist market in the cities where we live in super modernity today. Bedard is in a justified partnership with Rudofsky in solving the problem at the point of living humanely.

Ten years after this text, Luke Jones draws attention to the necessity of defining the word Vernacular in his 2018 article 'Thoughts on Vernacular and Spontaneity'. He sees Rudofsky's definition of architecture as finished and infinite as in a work of art as a problematic: not artifice, or principle. Jones mentions Manfredo Tafuri's remark on this tendency to view the historic city as an organic totality as a hallmark of a postwar modernist 'guilt complex' projected over the historical rupture of the earlier avant-garde. Tafuri sees it as a reductionism in which a 'generic organism' — in the form of a monolithic image of heritage —suppresses the historic city's originally 'polyvalent' complexity (Jones, 2018). Jones continues by opening an argument about the 'vernacular,' at least in his country, is brick, terraced houses, bourgeois values, 'traditional' urbanism, conformity, nostalgia for a mythic and fantastical past: between an materially and historically specific (railway age, expanding middle class) 'style' and a literally autochthonous technique produced by absolute necessity. A vernacular can't be both a consciously conceived object of cultural innovation and a 'natural' product of dwelling-in-the-land. At least some things have to be pretentious, or alienating, or crass, or kitsch — menitoning to draw a line.

2023 in his article titled In Quest of Meaning- Revisiting the Discourse Around 'Non-pedigreed' Architecture.' Vasilis Chanis states: "Rudosfky museumify entirely the vernacular, turning an active building tradition of millennia into a passive visual catalogue. He elevated "non-pedigreed"

architecture to the status of Art, only by turning it into an exhibit. Moreover, Rudosfky's purist approach emphasized presenting the vernacular as it had never been exposed to changes; in other words, it was eternal. Thus, not only did he museumify the vernacular, but in order to do so, he flattened down countless years of changes and efforts, failures and successes, into a fixed idealized moment." Based on Rudofsky's definitions, the framework of his text is organised into a tripartite sequence- Origins and History, Aesthetics and Representation, Authorship and Knowledge- and examines the third through the example of two architects; Christopher and Pikionis (Chanis, 2023).

In the simplest glance, the buildings that make up local architecture are built by their owners or local artisans. Generally speaking, local architecture has an anonymous structure that can be set as the natural environment where it is constructed, local equipments, tools and construction materials used. Construction technique relates common practice and belief in the surrounding area. Unless there is a major change in economic and social structure, local architecture remains unchanged for many years. Mostly, when we talk about local/vernacular architecture in the world of academia, we take these very basic conditions and generally accepted definitions as a basis. This immutability is hidden in the movement of architectural creations as an idea, as a foundation. For this reason, the local/vernacular mentioned in the above quotations does not lie in a complete frozenness, but in a continuous similar movement of diversity. The lines of Hilde Heynen, writing on Sybil Moholy Nagy's work on American vernacular architecture, may provide a good explanation:

“The value of vernacular architecture goes deeper. In addition to service and aesthetic appeal, the structures built by settlers in a new land can serve as visual means to come closer toan understanding of the causes of architecture. They are in the actual meaning of the term primitive, meaning not simple but original.The appeal to the ‘primitive’ qualities of the vernacular thus for Moholy-Nagy had to do with a desire to recognise ‘first causes’: primaeval desires and needs that ultimately drive architecture. A traditional belief, which can be traced back at least to Marc-Antoine Laugier, that good architecture has always been in touch with the primitive, that the primitive has always belonged to architecture. (Heynen, 2008)

In the mid-18th century, Laugier's Primitive Hut-Essays On Architecture, in which he describes the true principles and immutable rules of architecture as part of natural and internal processes, as well as Nagy's work and Rudofsky's anonymous architectural studies, to which he devoted 40 years, point to the search for the correlation between the primitive and the spontaneous in the nature of the material, the functions connected to basic needs and an essence that binds them. Let us now take a look at the different interpretations on the existence of this correlation.

3.2. What was Borrowed from Anonymous Architecture?

In 2018, Pedro Miguel Jiménez-Vicario, Pedro García-Martínez & Manuel Alejandro Ródenas-López wrote in their article titled “The influence of North African and Middle Eastern architecture on the birth and development of modern architecture in Central Europe (1898-1937)” about the contacts that the Central European architectural avant-garde had with the architecture of North Africa and the Middle East through different case

studies that offer an archetype of the synthesis between the vernacular and the modern in order to rewrite the historical storyline of modern architecture.

Even though Bernard Rudofsky's output is not directly related to the activities of this group, he clearly represents the type of architect who continuously struggled to prove that the origins of modern architecture actually lay in the Mediterranean area and East (Chanis, 2023).

For example in the beginning of 20th century, director of Wiener Kunsthistorisches Institut, Josef Strzygowski exerted a notable influence on Austrian historians, artists and architects at the beginning of the nineteenth century. His writings adulated the culture of the East, ranking it over and above that of Greece and Rome, and attempted to demonstrate the dependence of the Western world on the Mediterranean Orient. For him, the classic oriental forms – particularly those of the Iranian house – represented the origin of domestic architecture.

All this meant the justification of a spontaneous rationalism that makes the Modern Movement a phenomenon closer to tradition than the aforementioned "canonical" historiography has previously led us to believe.

Actually in this concern the motive of a new language in architecture, laid also in the social and economic needs as Alan Colquhoun puts it,

a) the residential stock of the main European cities had been heavily damaged during the First World War, and there was a pressing need to provide the population with new homes;

b) the small scale and, consequently, relatively low cost that the construction of this type of building requires, offered an opportunity for

modern architects to test the space needed to enable the lifestyle of an increasingly urban population.

He shared with Otto Wagner and Bernard Rudofsky a conspicuous interest in developing new concepts of aesthetics and exploring Mediterranean culture. The result of this interest was the course entitled “The Art of the Middle Ages and the Towns of the Orient”.

The fascination with oriental subjects gave rise to new ways of thinking in circles such as the Deutscher Werkbund and triggered some local solutions for the development of industrial products. Hermann Muthesius, for example, was an expert who played an important role in the founding of the Deutscher Werkbund in 1907, advocating many of the ideas borrowed from the British Arts and Crafts movement, and travelled extensively in the East and the Mediterranean. He advocated the idea of updating typologies, but emphasised the need to preserve the characteristics of local architecture as the basis for the design principles of architecture and town planning, and said that in the absence of an international locality of house-building, Italian, Roman, Arab or any other style of house should remain for Germany only a matter of theoretical interest.

Here again we are confronted with the statement that what is to be selected and taken from the non-pedigreed/vernacular and on what scales, and only with this selection will it not be culturally harmful.

In 1922 Heimatschutz school of Architecture-a grouping of numerous regional trade unions and other organisations with significant German roots from Austria, Switzerland and Scandinavia ‘manifested its rejection of the “oriental flat” roof’. With time, the polarisation grew, with the Heimatschutz fraction on one side and the Bauhaus professors on the other.

Led by Gropius, the latter had cultivated ties with Expressionism, and also believed that the industrialisation processes under way in the country had the potential to rejuvenate German culture as a whole.

The first examples of the use of flat roofs appeared in industrial architecture, in workers' houses and offices. Walter Gropius, for example, adopted this roof type for one of his first residences in Dramburg (Pomerania) in 1909-1910. Another work was the Fagus Fabrik, designed by Gropius and Adolf Mayer in 1911. According to historian Sigfried Giedion, this project meant 'the sudden and unexpected establishment of a new architectural language'.

This new way of understanding art and architecture was the ideological background of the Bauhaus, but it also garnered a large part of the German artistic avant-garde, including the likes of Johannes Itten, Georg Muche, Paul Klee, Oskar Schlemmer, Lothar Schreyer and Wassily Kandinsky. For Le Corbusier the rooftop had been transformed to create gardens and to make the dream of the flat roof come true, "an oriental garden full of an overwhelming beauty".

Further more it was André Lurcat's explanation made a clear point: "expressive possibilities of the reinforced concrete in the flat roofs, has coined the cliché of the oriental design style. I take this word "Orient" and want to talk about it, but in a completely different sense. Now we are really coming back to an ancient tradition with the new means of our technology, and it is a semi-unconscious return to the sources; I would like to say to the Earth.

In the text so far, we have analysed the content of Bernard Rudovsky's exhibition and the place of anonymous architecture in modern architecture

during and after the exhibition through selected texts. Regarding the anonymous architecture that appears in all reference texts, we can see that the visibility of the dominant anonymous data mostly comes to the fore with form and material, and that they are used as a method of elimination through the discussions of architects. In the next section, the colour layer, which is a memory tool/conductor among the components of anonymous architecture, will be examined.

3.3. Colour in Anonymous

We can define colour as a memory store for all living things.

The first memory is linked to the colours created by the biosphere. The colours offered by geography, daylight, location, changes in daily and seasonal cycles and biosphere-dependent features (air, water, ground settlement areas also create their own colours on these given colours. Although these colours are similar to the colours of geography in areas where local materials are used, we see that different colours are added in parallel with the change of settlements over time. About the cities' overlapping layers, studies in archaeology, anthropology, sociology, architecture and history are mostly to unearth the first/initial in being. (Figure 2).

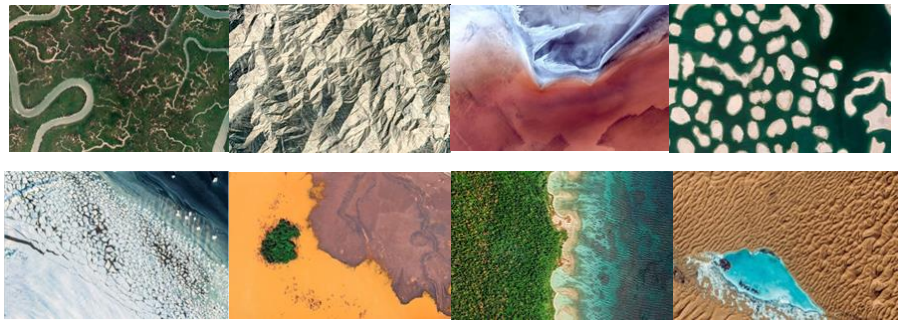

Figure 2. (URL-1, 2023)

When we look at the urban textures of Moscow and Cairo from a bird's eye view, we can say that we see both the colour created by the city and the colour of the ground.

(Figure3)

Figure3. Left:(URL-2, 2023), right: (URL-3,2023)

We can see up in Figure3, Moscow and Cairo city centers from Google earth and down in Figure4, Moscow and Cairo siluets. By changing the angle and looking at these two different geographies in silhouette, it is possible to see how the settlements create their own colours.

(Figure 4.)

Figure 4. Up (URL-4, 2012), down (URL-5, 2023)

Unlike the colour effect in cities that remain on almost the same trace consisting of central layers, the same effect does not exist in cities that

grow rapidly in a short time in a fragmented manner with single buildings. A layered city is composed of established, developing and preserved regions, and this construction prepares the ground for colour-environment analyses to be carried out at the scale of the upper region, at the scale of the area and at the scale of the single building. In a research on the colour quality of rapidly growing cities, looking at memory will undoubtedly provide different data.

In the recolouring of historical/vernacular texture, a continuity is felt depending on the material/texture effect of colour. The interest and admiration for the spontaneous/anonymous is actually a reflection of the interest in the process that creates this continuity. It is possible to see different approaches to spontaneity in many historical settlements in Anatolia. For example, in Kula, users living in the traditional housing texture have recently adopted the diversity and ease of use of new synthetic paints and created new compositions with colour on the exterior surfaces of existing buildings. The difference between the establishment of this colourful relationship based on social bonds established through neighbourhoods over a certain period of time and the establishment of this relationship by designing/suggesting in a short time is based on the reflection of social memory on the space. For example defining/showing the borders of neigbour buildings by using colour can be seen in Figure 5, right image.

(Figure5)

Figure5. Left, Gathered Facade Colours of Kula/Colours of Kula (Kılıç, 2011), right: A Street view from Kula (Kuruç, 2011)

Examples contrary to these traditional approaches to the use of colour have emerged at the initiative of local governments since the 1990s and have been implemented as a pillar of urban renewal projects. For example, interventions were made in the character of the anonymous with decisions such as painting all Safranbolu houses white in the 1990s, painting only the facades of buildings facing the main arteries in Ankara in the early 2000s in a similar colour and covering them with a single material, or painting all buildings, new and old, yellow in some neighbourhoods in Bursa Kale.

Although the fragmented structure of megacities does not give the picturesque effect of anonymous architectural examples, each settlement has a colour scale that can be felt depending on its geographical, social, cutural atmosphere, as in the panoramic view we mentioned at the beginning of this chapter. In Chapter 1, Luke Jones' reference to “highly picturesque”, one of the three pillars used to describe Rudovsky's

exhibition, falls short in the dimension of colour. As a matter of fact, picturesque, which is defined as an 18th century aesthetic category, can be opened as irregularity in form, texture, light and colour, liveliness, and what is worth painting. Nikolaus Pevsner, in his 1954 article in defence of Picturesque, defines 20th century picturesque as varied, the intricate, the on-its own merit.

In the black and white photographs used by Rudofsky in the exhibition, we see that the atmospheric colours of the settlements are not perceived as they are, which are examples of anonymous architecture, and the colours due to natural light changes caused by topography and geography, and that the texts are not sufficient enough to talk about colour dimension in this sense. 'In the physical environment where every object is perceived together with other objects, therefore, knowing that the perception of the colour of an object alone can only take place in a laboratory environment using the colour umbrella we can say that the colour associations of the settlements formed by the effects arising from the environment mentioned above are important in the study of anonymous architecture.

In the light of these evaluations, we will first look at the differences between black and white expression and colour expression through the dimensions of colour.

The connection of colour with the surface can be traced back to the word chroma (Greek) meaning skin/shell or reng (Persian) meaning masking. It is accepted that the first dyeing processes were carried out between the 6th and 4th millennia BC. Red tones are seen in the first dyed woven pieces. These samples were found in Asia and Africa. The rich shades and brightness of the colour and the ease with which the fabric absorbs the dye

have led many cultures to refer to fabric dyeing as red dyeing: In Rome, for example, it is known to have been called colouratus' (Kuruç, 2016)

However, the relationship of colour with surface and objects is too complex to be kept at this point. Underlying the approach of ‘form is masculine and deep, colour is feminine and on the surface’ are issues such as the view of gender and class differences and the postponement of the physically transient in the last 3000 years of human history. (Kuruç, 2016) According to Gotfried Semper, an architect known for his radical criticism of polychromy against classicism, which glorified white architecture in the 18th century, in ancient societies it was only possible to get rid of the limiting presence of matter and to be liberated by masking. Thus, the masked structure could become immaterial and transforms into pure form. The white marble columns and walls of the Parthenon were covered and painted in such a way that no empty space was left; this was also the case for all marble and bronze sculptures. According to Semper, the fact that walls were covered with carpets in many cultures historically proves the existence of the idea of a space independent of structure. (Şentürk, 2015) The art historian David Batchelor, who quotes Semper, also brings up the fear of colour in the Western world in his studies on the absence of colour, which he started with his book Chromophobia published 20 years ago. In Whitescapes, where he discusses white, he conveys through the thoughts of different art historians and architects that white is not the opposite of colour, that its references as a colour are socially and culturally strong, that the white it stands against is ‘pure white’ (Batchelor, 2000) and that this pure white stands next to the ‘designo versus colore’ approach that was predominantly accepted in the 19th century Western world. An example

of the use of white as an abstraction in modernist buildings is "Weissenhofsiedlung, a development opened in 1927 in Stuttgart, Germany, which gathered the most renowned architects of the Deutscher Werkbund to contribute to the masterplan led by Mies van der Rohe. Despite the name, which translates to "settlement of white houses, only a third of the units were, in fact, completely white." In this project, white, which was chosen as the colour in the design process, was not implemented in practice. Decisions in such projects and changes in practice are another research topic.

3.3.1. Colour dimensions' effect

In the transition of colour theories, which have been studied since Aristotle in the known history, to modern science, there were already 28 colour systems in the 19th century. Alfred Munsell's three-dimensional Colour Tree, which he created by using three colour dimensions (type, value, saturation) chosen by taking advantage of Helmholtz's work, created an important leap in this field. The basic colour (hue) is the colour itself, its type; for example red. Saturation (saturation): Describes the degree of purity of the colour; some reds are pale, some are intense. Brightness (value) is the extent to which a colour reflects light.

"Some colours are lighter than others. It is the measurement of lightness and darkness of colours. In this context, brightness is like the grey scale in black and white photography. On this scale, light colours are considered high in brightness and dark colours are considered low in brightness. As the colour of pink gets lighter, it enters the bright group. As it gets darker, it becomes saturated. Otherwise, colours such as gold, silver, copper are not bright colours. Colloquially, shimmering, shining colours are called

‘bright’. However, every colour has a bright colour. As the colour gets brighter, it enters the bright colour group. There are bright colours in red, green and pink. The brightest known colour is yellow.” (Symons, 2019) With the combination of these three, it is possible to fully perceive the colour. Now let's look at what is missing with black and white expressions through David Hockney's Bigger Splash (1967).

Black and white photography eliminates hue and saturation, leaving only value. In the two versions of the painting the version on the right only values of the colors are visible as seen in Figure 6.

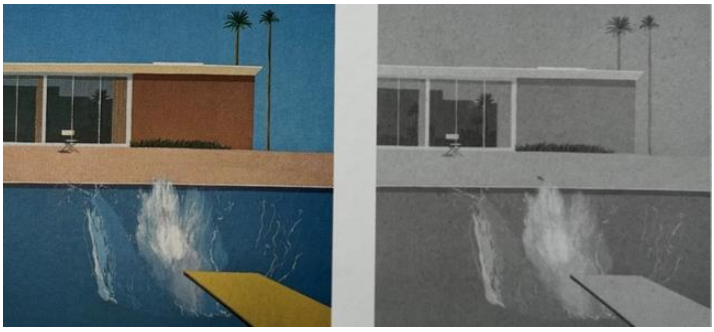

Figure 6. (Hornung, 2005).

“Balance and harmony echo through the piece, with the big eruption of the splash at the heart of the painting. Blue compose the sky and pool (avoiding a top or bottom heavy image), with earthly tones in the centre. Similar to Vermeer’s painting, using yellow only for the diving board, attracting our eye, therefore leading the eye off the board to the splash – the core part of the painting. It’s a fine piece of art by the legendary artist.” This colour gamut focuses largely on the blue hue, with tints of yellow, red and green playing a part too (with tones in-between). You can also see that Hockney has used grey for the windows – to make sure the building’s colour doesn’t dominate the painting.

Let us try to make a visual experiment to see different effects of the coloured and the white and black through Rudofsky's architecture.

Rudofsky's first design efforts were in the field of architecture. He completed his best-known work, the Casa Oro (1935–1937) on a cliff overlooking the Bay of Naples, in collaboration with Italian architect Luigi Cosenza. In Figure 7, we can see Casa Oro in two expressions; first one, the original black and white image keeping only the value dimension of colours ,second one derived from the black and white image back to its original colours; shows us two ways of selecting Anonymous data. (Figure7)

Figure 7. (Tavoletta, 2021)

It contains design elements that would distinguish his later home designs—a spatial arrangement integrated within the landscape, front courts, forms appropriated from traditional architecture, and an intimate atmosphere for the people living in the house.

As an architect, Rudofsky employed a modernist vocabulary — with its characteristic white, undecorated, cubic shapes in concrete and glass — yet at the same time he was an outspoken critic of modern architecture. He rejected the notion of universal or standardized concepts of dwelling and instead promoted the idea that an individuals built environment should reflect the history, culture, and climate of his or her immediate

surroundings.It should be noted that Rudofsky was keen on colour and pattern, and looked back with melancholy satisfaction to his youth spent among handmade objects." (Powers, 2014).

Rudofsky notes that the untutored builders of the structures he admires: '... demonstrate an admirable talent for fitting their buildings into the natural surroundings. ...they welcome the vagaries of climate and the challenge of topography'. For Rudofsky: '… the most decisive perceptual quality of an architectural space was its being enclosed by walls' – including 'outdoor rooms', which are enclosed by walls but without roofs.

3.3.2. Any common ground in colour dimension of anonimty for architects?

Like the selection of mixed samples in Rudofsky's exhibition, some of the Western architects mentioned in this study share an interest in colour and anonymity: Le Corbusier and David Chipperfield, recipients of the Sikkens Colour Prize, and Ettore Sottsass, who almost grounded his view of architecture and object design through colour amazed by his travel experiences in Asia. The commonalities of the three dissimilar names can be considered as their travels to the Far East, Le Corbusier's and Sottsass' published books on colour, and Chipperfield's use of colour in the title of a project book. (Figure8)

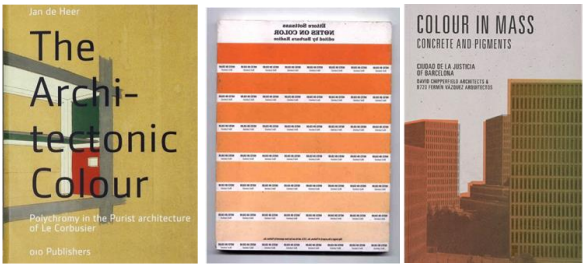

Figure 8. (URL-6, 2015; URL-7, 2024; URL-8, 2024)

Another common ground for two of these architects' colour works can be set as an example in Figure 9, Le Corbusier's Colour Palette for Salubra company and Chipperfield's colour palette (Joachimstraße) for Bleo. (Figure9)

Figure 9. Left, (URL-9, 2024) Right, (Bleo, 2024)

The Sikkens Prize that these two architects received is awarded every two years to an individual or institution that has made a significant contribution to the field of colour. The prize recognises and celebrates outstanding achievements in which colour is central and which have a transformative effect on society. The Sikkens Prize was first awarded in 1959 to the architect and designer Gerrit Rietveld.

To begin with **Le Corbusier**,

In 1963 French architect received the Sikkens Prize for his use of colour as an active element in the spatial and plastic impact of architecture. Only just 50 years before getting this award- his 'journey to the east' (published it afterwards) of 1911, an influence which helped form two of his most strongly held beliefs: the need for human society to reconnect with the natural world, and the importance of finding a new form of sacred or

spiritual experience for the sceptical world of the twentieth-century, industrialized West. Le Corbusier saw the whiteness of the vernacular houses of the journey to th east as evidence of a true architectural authenticity, and of an architecture which had grasped the essentials of the discipline without even conceiving of itself as part of that discipline. He praises their ‘sparkling white’ facades and ‘perfect cleanliness’.

Later in life, he has designed for Salubra wall paper company colour palettes, one in 1931, latter in 1959. Le Corbusier’s approach to colour, defined through his early text, is cautious, using a restricted palette of what he qualified as “architectural colors,” favoring primary and earthy tones. His colour theory is described at length in his book "PolyChromie Architecturale," translated as Polychrome Architecture, published in 1931. His design process aimed to create an intellectual, systematic, and rational system for chroma application. This aligns with the general direction of architecture, which was moving away from figurative expression and into the abstract world.

During his travels he also made sketches using bold colours. His way of interacting with colour is with white wash rather than polychromy when it comes to anonymous architecture.

Le Corbusier links with vernacular architecture in order to make claim for the superiority of those cultures which had not embraced extraneous ornamentation over those which had: whitewash exists wherever people have preserved intact the balanced structure of a harmonious culture as Le Corbusier says;

In the course of my travels I found whitewash wherever the twentieth century had not yet arrived. (Dummett,2005)

We can see an exclusion of colours about Eastern Anonymous Architecture through his own perception and can suggest that his way of using polychromy through abstractions depends on his own set of rules.

Ettore Sottsass, raised in Turin and graduated in Architecture at the Turin Polytechnic in 1939. In 1947 he founded his own architecture and industrial design studio,1956 moved to New York. From the end of the 60s to the 70s he collaborated with Superstudio, Archizoom Associati and Alchymia, within the Architettura Radicale movement.

Colorful homes which beckon asymmetrical shaping the architecture of a South Asian city greatly inspired Sottsass who was named as one of the most radical founding fathers of Postmodernism. (Thevarajah, 2022) In the 1960s, on his frequent travels to India, Memphis Group founder Sottsass discovered colourful and geometric homes of Tiruvannamalai in Tamil Nadu and they became a huge source of inspiration for him. Many of these homes were built as early as the 1940s – forty years before the founding of Memphis Group. It was in India that Sottsass learned the importance of color. Even the poorest in India lived in brightly colored homes and wore brightly colored clothing. His design sensibilities started to change radically. (Kupper & Summer, 2015)

"We might think of these buildings as kitsch, but in India colour is more than just a passing fad, it is deeply rooted in the country's culture. As we are reminded in their Postmodern reincarnations, nothing is ever new, even when it's reinvented." (Forgot, 2018)

For Sottsass and his allies in the Memphis Group, there didn't need to be a theory. A building or lamp could be adorned with any color or pattern just-because. (Forgot,2018)

David Chipperfield, who started his architectural proffesion in 1985, had worked with Richard Rogers and Norman Foster. But his architecture was shaped in Japan, working with Tadao Ando. He emphasizes he was fascinated by how Ando had adapted the spacial ideas of traditional Japanese architecture to modernism, in turn revitalising modernism through an interest in Japanese history and through the physical presence of architecture," His early projects in Japan gave him the opportunity to explore material and space, light and composition, inside and outside, and other Japanese references.

Chipperfield calculates the environmental and historical impacts of permanence, embracing the preexisting, designing and intervening in dialogue with time and place to adopt and refresh the architectural language of each locale. We can say a timeless reference of the anonymous is hidden in his projects: "As an architect, I'm in a way the guardian of meaning, memory, and heritage. Cities are historical records, and architecture after a certain moment is a historical record. Cities are dynamic, so they don't just sit there, they evolve. And in that evolution, we take buildings away and we replace them with others. We choose ourselves, and the concept of only protecting the best is not enough. It's also a matter of protecting character and qualities that reflect the richness of the evolution of a city." (Slattery, 2017)

In 2015, the Sikkens Prize was awarded to British architect David Chipperfield because of his subtle and intelligent colour application. Chipperfield's use of colour supports and emphasizes his architectural design. Chipperfield employs the colours provided by the architectural

context and the building materials in way that is both modest and meaningful (The Hyatt Foundation, 2015).

When we search Chipperfields' architecture, until now we can see the very essence of natural colours of the materials are taking their places. City of Justice Barcelona & L'Hospitalet de Llobregat Project done by co working with Fermín Vázquez Arquitectos is finalized by a book named Color in Mass. There he underlines the colour integration with concrete. Polychrome work was held in a large area, creating a repetitive design in terms of mass and form. 15 pages of explanation was made for the pigmentation of the concrete in the Project book. (Chipperfield, 2012)

It is possible to say that the three architects' relationship with the anonymous is influenced by their travels, and that the way they use colour in this relationship is similarly determined through their own distinctive elimination. (Figure10)

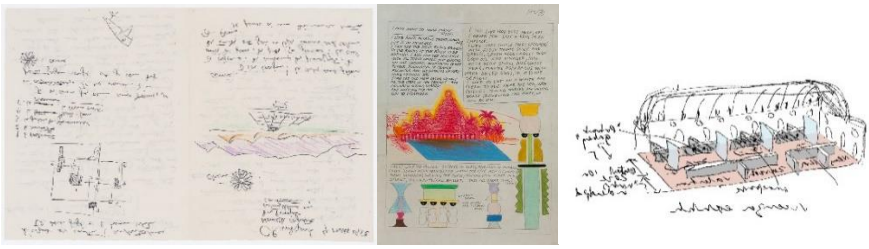

Figure 10. Sketches from left to right (URL-10,2021) Le Corbusier, (URL-11, 2017) Sottsass, (URL-12, 2018) Chipperfield.

In the sketches made by Le Corbusier and Sottsass during their trips, we see that they mostly express the built and natural environment with all its colours. It was not possible to reach Chipperfield's travel sketches. While the sketches of his projects are generally colourless, we can say that in his recent works he uses only a second colour, red, in order to emphasise the colours infused into the materials he uses. However, another unity appears

in the interpretation of anonymous architecture in Sottsass and Chipperfield, who stand far away from each other; being close to human genuity and escaping from the strict set of rules and programmes of modernism. What if Le Corbusier lived longer, may be the genius logi would have showed us another phase in his works.

4. Conclusion and Suggestions

In this study, it was examined the presence of the colour dimension in the expression of anonymous architecture based on Bernard Rudofsky's 'Architecture Without Architects' A Non-Pedigreed Architecture Exhibition. It can be said that the photographs and text used in the exhibition as a means of expression do not express the colour dimension sufficiently, but this behaviour coincides with the spirit of the time when the exhibition was held. In the relationship between modern architecture and anonymous architecture in the aforementioned periods, it is found that those who interpreted anonymity in architectural products, including Rudofsky, focused more on form and material characteristics.

For example 'European contact with North Africa and the Middle East that emerged at the end of nineteenth century and the beginning of twentieth provoked a cultural debate in Germany and Austria that covered a range of concepts such as "primitive", "expressive" and "modern". This phenomenon contributed to the Kulturkritik (cultural criticism) of the last decade of the nineteenth century, in which Western artists debated which oriental crafts could be considered 'art' and which ones were merely decorative.' (Chanis, 2023). This informs us of a system of culling from their own culture. Another clue could be the following words quoted from Rudofsky in the text of the MOMA exhibition presentation: 'untrained

builders creating forms so close to art and giving aesthetic pleasure to the eye.'

Throughout the study, especially in the texts describing the relationship between the anonymous and the buildings of Western modernists, references to the Mediterranean and the East are given, but in Rudofsky's exhibition we also see examples from countries such as Portugal, Mexico, Poland, Czechia (then Czechoslovakia) and Switzerland. In this sense, the exhibition has created an important turning point in terms of bringing together different anonymities by giving references from almost the entire world geography of its period.

It shows the possibility of the implicit presence of colour references in anonymous architecture in the view of architecture, where multicolouredness has been identified with expressions such as abstraction, childishness and femininity since the Renaissance, and where the motto 'designo versus colore' is dominant. For example, we have seen that architects often use colour in their preliminary studies and sketches, and that they use colours, especially those that carry references to the past or nature, in various abstractions by extracting them in their own way.

In the view of anonymous architecture, which influenced modern architecture, the abstraction of colour is almost as if the colour is stripped of its essence. While natural materials and white are glorified, especially in painting techniques, the colour relations obtained from anonymous references have often remained in the secondary plan.

Today, 'as the material becomes virtualised, technologised and moves away from the ground, it tries to integrate with nature on the other side. In fact, over time, the material is moving away from locality and traditional

space culture by creating a technological space with high energy input, while on the other hand, it continues to search for locality and traditionalisation.' (Arpacıoğlu & Kuruç, 2010). Has colour found a new way out in this digital era?

It is not a coincidence that in the anonymous references of predominantly modernism, the architects were mainly based on the Mediterranean civilizations (North Africa and Asia Minor included), with which they had an organic connection to their own cultures, but also Japan, where abstraction was part of cultural life, was accepted as an important reference in this sense. What mainly remains from the abstraction/sorting can be set as prominent data such as white lime-painted, repetitive cubic mass approaches, the use of shadows created by light and use of natural materials (wood, stone, etc.)

It is also noteworthy that the architects who set up multicolored compositions referring to anonymous architecture in their compositions either adressed local cultural references where the local culture uses colour boldly or in parallel with the spirit of the post modern period, for example, instead of the material colour, directly influenced by anonymous recent compositions obtained with multicolored painting techniques applied on new construction systems.

This study is a first step towards a comprehensive study on the effects of the color dimension of anonymous architecture in modern and post-modern examples which are mentioned only in a limited framework and number in this article.

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The Borromean Knot: A Lacanian Perspective for Architectural Design Theory

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1. Introduction

This essay is an inaugural attempt to construct a topological perspective towards different disciplinary domains of architecture (such as theory, design, construction and historiography) by employing a tryptic structure known as RSI diagram (representing Real, Symbolic and Imaginary orders), first formulated by French psychoanalyst and post-structuralist philosopher Jacques Lacan, to schematize sub-mechanisms of human psyche and their role in subject formation in an analogy to architecture. This figuration is represented in Borromean Knot, first appearing in Lacan's theory as early as 1950 (Lacan, 1977, p. 281)[i].

As a specific domain of practice, architecture is based on its own kind of machinery, knowledge, language, critique and historiographical performance. Simultaneously, it constitutes a particular cultural production mode and requires a collective consensus based on its own native semantic structures. As expected, this multi-dimensional mechanism has been deeply divided between discipline's various faculties, with every one of them demanding its own dominance. Architecture is characterized by an endless power struggle among its faculties, seeking dominance over others. The hermetic mediums of these atomic mechanisms have been a preoccupation for theoreticians, architects and historians and they have been commonly discussed as opposing, non-relating pairs or encapsulated fields with limited interaction. Lacan's Borromean structure is utilized in this study to mediate between these ostensibly impermeable domains and map their invisible intersections, which could provide a much-needed ground for constructing new interactions between them.

2. Lacan as Context and Method

Although based on the tradition of linguistics, Lacan's topological approach towards psycho-spatial mechanisms transcends the dualistic thinking of the structuralists. His psychanalytic theory didn't only fundamentally transform the psychology stage alone, but also greatly influenced thinkers like Foucault, Deleuze and Guattari, Althusser, Jameson, Badiou or Žižek.

Lacan's neo-structuralist approach is rooted in language and semiotics, while deriving most of his native terms from Freud's oeuvre. Sophokles, Quintilian (rhetoric form), Benedict de Spinoza (ethics), Immanuel Kant (truth and reason), Marquis de Sade (desire), Georg Wilhelm Friedrich Hegel (dialectic), Ferdinand de Saussure (signifier-signified relationship), André Breton (surrealism), Roman Osipovic Jacobson (philology), Martin Heidegger (Dasein), Kurt Gödel (mathematics and topology) and Claude Lévi-Strauss (structural anthropology) are among important names who shaped the trajectory of his thought (Jirgens, 2009, p. 29).

Lacan's diverse formulations on psychoanalytic mechanisms are organized through non-oriented, self-intersecting topological diagrams, which allowed him to establish new relations and positionings between different psychological registers, previously considered as irreconcilable contradictions. This topological re-structuring displayed the critical dimension of psychoanalysis, which rhymes with the changing scientific and political scene of the 1970s and has had accordingly strong reflections in other disciplines such as philosophy, sociology, anthropology, linguistics and other social disciplines. Renowned architecture theoreticians[ii] also incorporated Lacan's views into their own discussions,

as for architecture too, 1970s marked a moment of "crisis[iii]"; a gradual dissolution of profession's law-setting, normative authoritative structure, which in Lacan's terms corresponds to the Symbolic order in the Borromean Knot (Hays, 2022, p. 565).

Around 1900, the crisis of intuition — which resulted from the arithmetization of mathematics, the elaboration of non-Euclidean geometries, the field theoretical turn in physics, and the calculizaton of formal logic — weighed heavily on the entire space of knowledge. It came to a head in the philosophical confrontation about the matter of thinking, about whether thinking was generated intuitively or symbolically. The new symbolic age that began there … pushed the autonomization and ultimately the machinization of the Symbolic" (Hörl, 2018).

What role could Lacan play in architectural theory or for that matter in any scientific methodology? Lacan's theory is based on a fundamental, irreversible loss in subject formation. His psychoanalytic approach aims at an acceptance instead of a catharsis. Closely related to linguistic theories, the subject formation in Lacanian domain is based on language, signifiers and signified. These are represented in complex diagrammatic and algebraic formulations. When situating his discovery of subconscious, Freud claimed that three achievements in history of modern Europe devalued human and called them "three narcissistic diseases". First one was the verification of heliocentrism by Copernicus, second one was Darwin demonstrating us that our emergence and development was based on evolution, thus stripping us from our self-designated "most noble being" status. Last achievement belonged to Freud himself; the subconscious, which showed that our ego had no power in our own home.

Žižek adds that today, one century later, the situation seems to be worse, considering all scientific developments serve to shrink the narcissistic image of the human even more (Žižek, 2021, pp. 12-13)

Lacan, although faithful to Freud on his departure point, never shared his scientism. From his point of view, science never constituted a specular image, an ideal point for psychoanalysis, but rather it structured the discipline from within. But science is not entirely external to, nor entirely removed from psychoanalysis. Hence this structuring attempt does not function as a regulation. Without any scientific ideal or regulation, psychoanalysis will be an autonomous field, constructing its own constitutive principles and methods. Alexandre Koyré and Alexandre Kojève were two prominent figures in Lacan's own formation. Their common claim was a discontinuity between ancient and modern world (Milner, 1996).

Lacan's genealogy is based on missing elements, incompleteness and discontinuities in structural elements of the psychic mechanism and compared them with lingual components. For him, mapping existing "non-existences" on reality and putting them in correspondence with each other required new assemblages of previous tool sets at hand. Constructing relationships between irrevocable domains was never about providing exhaustive descriptions. Lacan's method is based on a negativity, instead of surveying and portraying existing phenomena; highlighting incompleteness of psyche and its lacking elements allowed him to show the maladaptation of human to his immediate habitat[iv]. The negative social foundation of this statement constituted the generating basis of Lacan's Symbolic and Imaginary orders. Their reciprocity displays how his

reprogramming of Freudian subject incorporates the theory and practice of architecture among formative practices of human environment (Payne, 2024, p. 14). Same discontinuities, maladaptation and incompleteness can be traced across various domains of architecture, which like other disciplines has been subject to devastating effects of scientific developments and social transformations. Like Koyré, Lacan situates the discontinuities of Cartesian-Galilean turn in signs and representations (Lacan, 2007, pp. 150-163). The ontogenesis of this disconnections is accurately traced by Michel Foucault and an extensive "damage report" can provide the basis for application of the Lacanian methodology on this matter.

3. *facteur c*: Symbolic and It's Discontinuities

The dissolution of architecture's authoritative structures in mid 20th century is not an event isolated to this period. Nor has it been an individual phenomenon disconnected from the scientific, social and cultural transformations across other domains in time. History is decorated with deep scars of epistemological disjunctions.

Lacan minted the term "factor c" (*facteur c*) in 1950, to describe "the constant characteristic of any given cultural milieu" (Lacan, 1977, p. 37; Evans, 1996). It aims to locate a specific part of the authority structure (Symbolic order) which define characteristic features of a cultural domain in comparison to other. C symbolizing the culture, Lacan's only example for this term appears to be the ahistoricism of USA (Lacan, 1977, pp. 37, 115; Evans, 1996, p. 60).

Similarly, French philosopher Michel Foucault surveys the Western cultural history for these discontinuities by excavating (archeologically)

and tracing (genealogically) the intensity points (jails, asylums or sexuality) where these disjunctions are simultaneously both hidden and obvious[v]. In *The Order of Things* (*Les Mots et les Choses*; 1966) he underlines two prominent junction points in epistemological continuity of Western cultural development: 1) between Renaissance and Classical periods around mid-17th century 2) between Classical and Modern periods towards the start of 19th century (Deleuze, 2003). Situated at the center of the cultural nexus, architecture has been subject to same disjunctions, hence it's disciplinary totality too is inscribed with similar scars.

3.1. Epistemological Disjunctions: Loss of Unity

Along many fundamental changes in different disciplines, Renaissance brought with itself the "re-introduction" of orthographic projection methods and transformed the architectural production fundamentally[vi]. It was Alberti, who around 1450 stated that "*whole building art consists in the design and in the structure*" (Forty, 2000, p. 137). The distinction between construction and design granted the architect a subject position and categorized his activity under an intellectual domain within architecture[vii]. This new architect was no longer dominated by materiality alone, but by a Neo-Platonian design idea, which Vasari (1568) formulated as "*nothing but a visual expression of the concept which one has in the intellect*[viii]" (Forty, 2000, p. 136). This position -although initially appears as a disjunction point- still aimed at a semantic unity and an authoritative structure; a Symbolic (big Other[ix]). The Renaissance ethos, which assumed that God's mathematically arranged, perfectly proportioned creation is reflected in nature itself, transformed the architectural object into the isomorphic, material representation of this divine order. The Antiquity

(source of Symbolic order for architecture in Middle Age) was now replaced with another "divided" totality in disguise.

First half of 17th century witnessed philosophical and mathematical advancements. When the Renaissance ethos was absorbed into France, it was based on the belief that arts, like the sciences, was a component of the total pattern of the universe, in an eternal syntax of mathematical forms, functions and their combinations. It was Rene Descartes, a young mathematician subsequently turned to philosophy, who introduced a "deductive" system, later known as "*Cartesianism*". Descartes' *Discourse on Method* (1637) consisted of a set of rules towards logical inquiries or Cartesian doubts. His challenge towards Plato and Aristotle's authority can be translated into architecture as an inherent salvo towards the teachings of Vitruvius (Mallgrave, 2006, p. 61). His combination between Thought and Being along with infinite space concept inaugurated the mechanization of body, which can be broken down into sub-systems and parts for Cartesian investigation[x]. Architecture's epistemological totality (Symbolic) was subjected to same procedure, moving from a universality towards particularities and marking the transition or disjunction point between Renaissance and Classical (Enlightenment) period. The uniform, divine geometrical and mathematical order of Renaissance was now under dissolving effects of Descartes' tripartite orthographic projection method. Through the analyzing (abstracting) act, the new actor (architect) could now mentally imagine the mathematical and geometrical phenomena, principles or processes embedded in universal mechanisms. His drawing skills would allow him to synthesize (concentrate) his findings in a medium of representation. This new specialist was comparable to a

philosopher or scientist, who could examine and grasp latent, abstract truths in things and produce material realities out of his synthesis, i.e. architecture. The total abstraction of architectural objects into their part-objects would allow the architect to re-organize these around different conceptual contexts (type, hierarchy, composition, etc.) into tables, diagrams, catalogs. The treatises of the period reflect this tendency. Simultaneously, the Cartesian analytical geometry converted the space into an infinite, open, neutral geometric abstraction, which is detached from subject and time, allowing representation and analysis of complex spatial and formal compositions in a general language (Ceylan, 2010, p. 112). With institutionalization of the education[xi], architectural knowledge was no more conveyed through an apprentice-master relationship. Academy and universities replaced the in situ practical training with a structured set of principles and discourses. This analytical ethos would dominate the intellectual domain of architecture for almost two centuries.

For many theorists, the post-Classical period of modernity spans across a large, undifferentiated historical epoch from Renaissance to present. Foucault underlines two different post-Renaissance periods; the Classical (1660-1800) and the Modern era (1800-1950) (Foucault, 2002, p. 63).

The "resemblance" law (Symbolic) of Renaissance was replaced in 17th century by rational analysis. This law preserved some of its components (language, value system and natural orders) in subsequent period. Classical episteme was defined by representations prior to this junction point, the modern period demarcates their replacement by "scientific knowledge". The epistemological disjunction occurs in three emerging fields of specialization: philological studies on grammar and etymology,

economical science on production and consumption analysis and biology progressing in natural research (Foucault, 2002, p. 258). All possible orders in Classical episteme were based on representation. Language as the fundamental framework of things, the irrevocable distance between representations and beings disappeared from the stage. The historical context served to isolate things in themselves and defining their characteristics with their own consistencies. Previously things and their representations existed as a totality. Now both started to constitute independent, specific knowledge domains[xii] (Foucault, 2002, p. xxiv).

For architecture, this situation resulted in a drastic transformation of its production modes. The architect was now aware that any knowledge he obtained or invented would only be representable through these very same means of representation, hence he chose them accordingly. The disintegration of signified and signifiers, of things (reality, world) and their representations (language, sign), has had two important consequences. The link between things and their representations, which during Renaissance and Classical periods has been formed by a transcendent narrative, was now forever broken. Things became simultaneously the expression of their own form and an object of knowledge, an act of knowing (Foucault, 2002, p. 326). In Classical episteme signs and things were connected through representation analysis. The Modern era responded to this problem with provision of "meaning" and the language of representation became the domain of it (Foucault, 2002, p. 47).

Like its predecessors, this cultural re-organization corresponded to an epistemological disjunction, to a fundamental transformation of the Symbolic. This dislocation of signified-signifier relationship provided a

generous locus for post-structuralists including Lacan, who above all underlines the "lack" of meaning in signifier-signified relationships. The signification process itself became gradually a topic of inquiry in search of meaning. For architecture the Classical era contained the same dilemma between idea (thing/design) and its representations (sign/language). The arising language crisis is characterized with typological studies and linguistic interpretations focusing on the origins of architectural object and its formal meanings. In addition to this, growing economic and industrial developments drove architecture to focus on its transformative capacities with a focus on speed and process, while the discoveries in biology and history of nature resulted in a stronger focus on expressing its internal correlations and processes through diagrammatic representations, displaying correlations between its internal components, with functional and hierarchical organizations (Ceylan, 2010, pp. 87-90).

The overview in this section displays that architectures internal discontinuities are not isolated from its surrounding culture and its authoritative components are subject to same dislocating transformations as other power structures. At the same time, it is a clear verification that the intensive discussions of last century about locating architectural meaning, disciplinary unity and autonomy in a harmonious framework has its origin in a far more distant past than history of modern architecture covers. This impossible reconciliation enchanted architects, theorists or other figures from outside and inside of the discipline until present. The search for lost unity of architecture resembles a therapeutic alliance in an infinite psychoanalytical loop: a hopeless search for an escapist *objet petite a*. Modern Movement has been the condensation point of this endeavor,

until all its patients were suddenly disenchanted by two subsequent World Wars. Looking at some of the most symptomatic moments of its aftermath can nevertheless provide an encouraging prelude to a topological reconciliation with the impossibility of the task at hand. This would have been a realistic trajectory for a Lacanian psychoanalytical process: To provide the patient with enough self-awareness, that every *objet petite a* is just another disillusion in a series of representations, reproducing themselves upon interception in different masques infinitely. Hence for architecture -like life itself- the pursue must never stop.

3.2. Autonomy, Theory, and Critique as Architectural Authority Figure

In late 1960s Manfredo Tafuri demarcated the complete failure of Modernity project and its "post"-replacements in his *Architecture and Utopia: Design and Capitalist Development* (Tafuri, 1973, p. 181). He accused architecture with being a useful tool for capitalist development since Enlightenment, with a claim that utopias proposed by famous avant-gardes served only the further expansion of capitalist dominance. Tafuri's attack was directed against "consumerism, commercialism and erosion of high culture" that entered the stage as byproducts of capitalist development and represented by contemporary architectural tendencies (Ghirardo, 2002) . Even the critical stance against this tendency would be transformed under the pervasive effects of capitalism and instrumentalized for its own sake, if not charged with ideological resistance.

Tafuri was announcing the death of history, but from an anti-historicist point of view, rejecting selective use of historical forms for their superficial validity. In *Theories and History*, he gave a summarized

account of the decline of history from Renaissance avant-gardist breakthrough towards historicist eclipse of postmodernism in 1960s (Tafuri, 1980 (1976), p. 22). In a sense, he was marking another dissolution of architectural Symbolic, the authoritative structure of the discipline in Lacanian terms. For the sake of speculation, it can be claimed that Tafuri's proposal for an operative criticism in his *Theory and Histories* comes very close to Foucault's pre-Modern episteme, seeking a similar naive unity between language and its object; a coherent, transcendental cultural meaning, but this time encoded by Marxist ideology. Instead of an abstract survey, Tafuri was suggesting an analysis of architecture that has as its objective a harmonious tendency coherent with its structures. This new tendency would be produced through historical analysis, programmatically re-programming by projecting it towards future. This historiographic technique would receive its verification from within, through constantly measuring and re-assessing itself (Tafuri, 1980 (1976), p. 141), transforming into the new authority structure of architecture.

Tafuri's announcement of capitalist infiltration into the disciplinary domains encouraged many disenchanted architects to categorically reject any structure inherent to architecture and taking refuge in the domain of phenomenology and an empowered neo-functionalism. Desperately searching for new mechanisms of cultural approvement, architecture became increasingly "inter-disciplinary", which stripped its ostensibly cultural production devoid of meaning.

Architecture after all has the distinct role of being a domain of cultural representation (Hays, 2010, p. 1). If architecture is considered as a tool of culture, culture itself becomes determining factor of built form. The

theorists' task would be then This demarcated the start of discussion for an autonomous, disciplinary architecture.

"Architecture is a cognitive process that in and of itself, in the acknowledgement of its own autonomy, is today necessitating a re-founding of the discipline; that refuses interdisciplinary solutions to its own crisis; that does not pursue and immerse itself in political, economic, social and technological events only to mask its own creative and formal sterility, but rather desires to understand them as to be able to intervene in them with lucidity -not to determine them, but not to be subordinate to them either" (Scolari, 1998, p. 131).

The quotation from Massimo Scolari's article for 15th Triennale of Architecture in 1973 displays an insightful view regarding disciplinary autonomy of architecture. Autonomy as a term does not necessitate an isolation, disengagement or withdrawal but rather an active resistance towards a dominant empiricist functionalism (Hays, 2022). Autonomy can be understood as a critical position against literalism, preserving signification and representation of meaning by instrumentalizing intra-disciplinary tool sets. Only then, architecture would be able to fulfill its primary task as a specific kind of production of cultural meaning and knowledge, preserving the discipline as a distinct medium, practice and conception (Hays, Postlude, 2022).

It can be safely claimed that the architectural theory and criticism was predominantly under the influence of semiotics and linguistics after the turn of the mid-20th century. Until 1990's this tendency sustained itself in different forms and disguises. The neo-rationalist theory and practice of Aldo Rossi or the event-oriented transgressive architecture of Tschumi

were all but different reflections of this tendency. George Baird, Archizoom Associati, Denise Scott Brown, Denise Hillier among with many others were also among authors of important critical discourses of the period. However Tafuri's criticism towards mid-century avantgardes triggered a post-critical tendency, which scorched the post-structuralist theoretical domain for a charging element to jump-start the production of meaning.

The post- critical stage for architecture was dominated by two important figures after Tafuri. Peter Eisenman with the design journal *Oppositions* of his Institute of Architecture and Urban Studies, and Michael Hays with the post-structuralist approach he propagated in the journal *Asssemblage*. Both Eisenman and Hays had strong affinities to renowned linguists, psychoanalysts and literary theorist such as Jacques Derrida, Lacan or Paul Virilio. This was a textual architecture with strong theoretical bonds to French school of philosophy. Architecture simply followed the trajectory of dominant intellectual milieu of *zeitgeist*.

A full survey of the history of criticism in architecture would well exceed the scope of this study, hence it is more useful to underline mainstream tendencies of relevance. As one of the advocates of an autonomy project, Michael Hays started an important discussion with his *Critical Architecture: Between Culture and Form* (Hays, 1984). His work provided a legitimizing theoretical structure for Eisenman's work, who skillfully distorted and exploited Tafuri's theory in favor of his own work. the disenchantment with architectural theory's current condition. Whiting and Somol, who with their famous article *Notes Around The Doppler Effect* proposed a cool, projective criticism, which opposed Hays and Eisenman's

"hot, representation based, self-critical" stance (Somol & Whiting, 2002). This was again in harmony with the changing political and intellectual milieu of 2000's. With the collapse of the twin World Trade Center towers, the multiplicity and empire dream of USA was being replaced with pessimism. Architectural theory was declared dead, and Mark Wigley was leading the autopsy with his *2000+: The Urgencies of Architectural Theory* (Wigley & Graham, 2015). Around same time, Michael Speaks declared that we were now officially in a post-theory era, where the immense speed of production makes it almost impossible for theory to sustain its guiding role as critic (Speaks, 2002). He proposed a comprehension for the loss; his *Design Intelligence* was a clever appropriation of contemporary practices of what he called post-vanguards. Michael Hays countered the idea of post-theory from a psychoanalytical perspective by proposing a third position that transcends both theory and practice. Architecture would combine these domains in a symptomatic way by making its inherent pathologies visible (Hays, 2010). His opposition to Tafuri's position was stemming from the conviction that all late avantgardes were already aware of the loss and instead of compensating for it with repeating *L'Architecture dans le Boudoir* (Tafuri, 1998 (1974)), they were simply tracing the symptoms of their time with a genuine way of producing an inherently architectural architecture.

With this short account of 20th century architectural criticism, the dissolution of certain faculties in architectural domain becomes visible. The debate has been circumnavigating around a disbelief in any authority structure or representative system, that would guide architecture out of its death circle. If Foucault were alive, he probably would have set another

inflection point for epistemological rupture towards the end of the century. The reason for this struggle can be explained with the inadequacy of the tools at hand for repairing the machinery. Producing terminological dichotomies and rendering positions as right or wrong, gray or white, hot or cool can be defined as a symptomatically modern approach, whereas any meta-narrative would prove simply too centralized to define an intellectual milieu this de-centralized and de-territorialized.

As an analogy, this situation can be compared with the inefficiency of Euclidian geometry in representing certain architectural realities accurately (Greg Lynn). It's not about this methodology being invalidated or being right or wrong. It is simply another language and codification system incompatible with the reality at hand. Just like Freud's scientism inaugurate "the third Copernican revolution" (Žižek), the architecture underwent many revolutionary moments. How can we asses an un-structural, dissolving, fluid reality, with static Cartesian representations. Precisely at this point, Lacan's psychoanalytical theory offers genuine tools for mapping intertwined, convolute realities, reconciling rhizomatic structures which at first glimpse always appear ordinary and structured. Like its authors' subconscious, architecture's intra-psychic structure must be understood with all its contingencies, ostensible artificialities and symptomatic repetitions. Instead of scrutinizing buildings for further categorization, letting the architecture-subject lay down on the analyst couch might reveal new realities and relations.

4. Topological Structure of Architecture

4.1 Fundamental Concepts in Lacan

The theoretical framework in previous chapters displayed that the rupture between structural domains of architecture occur through an imminent loss or in Lacanian terms a "lack" (*manque*). This lack in Lacanian terminology is in direct relationship with desire. Desire is driven by something missing (Lacan, 1991, p. 139). Originally this is a desire/lack of being. It is not a lack of an object per se, but it is the lack of being where the being exists (Lacan, 1988a, p. 223). Lacan revisits this subject in 1958 and defines desire as metonymy of the lack of being (*manque à être*)[xiii]. He contrasts the lack of being (related to desire) with the lack of having (*manque à avoir),* which relates to demand (Lacan, 1966, p. 730).

From this departure point, architectures desire too is about being and it's based on the lack that presents itself across this theoretical survey: the unity, autonomy, correspondence between its mechanistic structures.

Lacan based his psychoanalytical model for psychic formations on a tripartite model, consisting of Real, Symbolic and Imaginary (RSI model). These three registers provide a basic distinction between mental registers, which allowed Lacan to decipher object-subject relations. Lacan argues that majority of misconceptions in psychoanalytical theory stem from a failed distinction between imaginary, symbolic and real father in Freudian terminology (Lacan, 1988, p. 73).

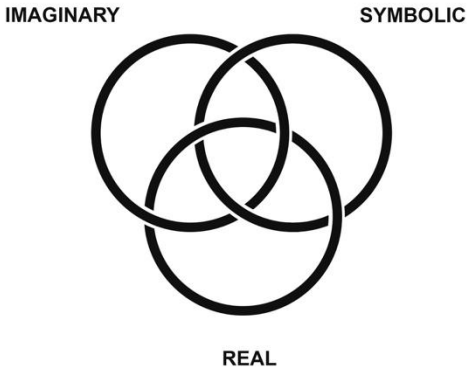

Figure 1. The Borromean Knot (Evans, 1996, p. 135).

Evans argues that Imaginary, Symbolic and Real registers are "profoundly heterogenous", each corresponding to different aspects of psychoanalytic experience. On the other hand, Lacan refers to these distinct orders through their common properties. He explores this intersection by using the topology of Borromean Knot (*noeud borroméen*) in his 1974-75 seminar. The three heterogenous orders can only be defined in relation to other two and this structural interdependence is displayed through Lacan's topological instrument (Evans, 1996, p. 135).

References to this structure appear first in 1950s in Lacan's work (Lacan, 1977, p. 281). The Borromean Knot (Figure 1) is named after a figure found on the coat of arms of the Borromea family; symbolizing a group of three rings which are linked in such a way that if any one of them is severed, all three become separated [(Lacan, 2007, p. 112) in (Evans, 1996, p. 19)].

The Borromean Knot is structured more like a chain, since it involves multiple bands, in contrast to the knot which is formed by a single thread.

Chain can be extended infinitely, while still preserving the interdependence of its rings for staying together. Lacan's first account on Borromean Knot appears in 1972-73, however the seminar in 1974-75 displayed his most detailed illustration of interdependence between Real, Symbolic and Imaginary orders with their intersecting elements (Figure 2).

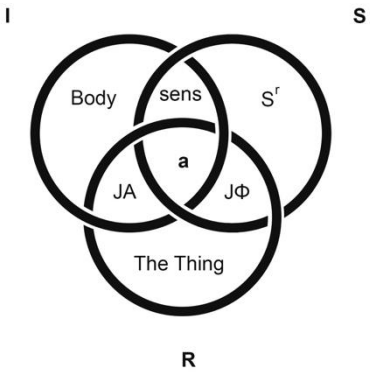

Figure 2. The Borromean Knot and Three Modes of *Jouissance* (Jourdan, 2023, p. 52)**.**

The relationship between different orders is established through Mirror Stage during childhood when the infant is six to eighteen months old (Lacan, 1977, p. 5). This process describes the formation of Ego (subjectivity) through identification with a Specular Image (self-image in the mirror). The infant, lacking physical coordination (*Hilflosigkeit*) and an image of its own body in totality, has perceives itself as a *corps morcelè* (fragmented body). On the other hand, its visual system is advanced enough to recognize itself in the mirror. The fragmented, uncoordinated body and unfragmented self-image produce a strong contrast. The integrity of the image threatens the infant (subject) and produces a rivalry between

itself and its self-image. To break through this anxiety and solve this tension, the subject identifies itself with its image in a moment that Lacan describes as "jubilation" (Lacan, 1977, p. 1). This absorption of its counterpart into self-image results in the initial formation of the Ego. The imaginary sense of mastery over one's own body might go in another direction and result in depression, if the infant would compare his own mastery with the omnipotence of the mother (or maternal Other) in presence (Lacan, 1966, p. 345; Lacan, 1994, p. 186). The secondary identification involves at the same time the ego-ideal, a promise of future integrity which sustains the ego in anticipation (Evans, 1996, p. 118), which Lacan formulated with the minuscular term "other".

The Ego formation in Mirror Stage is the result of a misunderstanding (*méconnaissance* or misrecognition) and marks the site where the subject becomes alienated from himself (Evans, 1996, p. 119). The introduction of the subject into Imaginary register presupposes the presence of a supporting adult, the big Other ("mOther" or maternal Other). Representing the Symbolic dimension, the big Other affirms the absorbed image upon infants' recognition through language and plays a vital role in subject formation (Evans, 1996, p. 119).

The moment of recognition is marked by the memory of fragmented body and the sight of accompanying mother, the big Other. For a second, the infant recognizes in big Other (Freud's *Nebenmensch* or companion) what it can(t) be, absorbs this image into its Ego, and through own memories of physical incompetence loses this forever to a void between its own existence (ideal-ego) and existence of a world external to itself (ego-ideal or other). Its psychic unity will be marked with this "lack" throughout its

life and drive its search for missing piece. This search constitutes the foundation of its desire, and the object in pursue the famous "little object a" or *objet petite a*.

The Real, Symbolic and Imaginary orders together form the structural framework for various concepts and transition periods in Lacan's theory. In this capacity, they can be described as three primary dimensions of psychical subjectivity.

In Lacan's theory, Imaginary order represents a restricted segment of consciousness and self-awareness and plays a crucial role in ego formation. It is the order out of the three "*with closest links to persons experience as non-psychoanalytic quotidian reality*". It is the closest relative to analytic terms in Freudian terminology like transference, fantasy and Es. Imaginary represents a pre-speech stage, and it is a different reality as who and what one imagines other persons or himself to be, or the imaginative perspective of himself in others' eyes as well as the meaning behind their words (Adrian, 2024).

The Imaginary is in a dualistic relation to Ego and Specular Image (Image of oneself in the Mirror Stage)[xiv]. It has strong affinities to fascination, seduction and illusion. Lacan underlines that this illusion is not to be mistaken with "illusory" as the latter term implies something trivial (Lacan, 1966, p. 723). The Imaginary asserts a powerful influence in the Real (Evans, 1996, p. 82). Identification, alienation, narcissism and aggressivity are the defining aspects of Imaginary order (Lacan, 1993, p. 146). As the realm of image and imagination, the transfiguring instruments of the Imaginary are wholeness, synthesis, autonomy, duality and, most importantly, similarity (Evans, 1996, p. 84).

As a common characteristic of Lacan's theory, the Imaginary register also contains a linguistic component. The signifier (language) is the primary foundation of Symbolic order but Signified and Signification belong to Imaginary order. Hence language resides simultaneously both in Imaginary and Symbolic registers with its corresponding aspects. In its Imaginary component, language is a "wall" which inverts and distorts the discursive intervention of the Other (Evans, 1996, p. 84).

The raw and explosive power of Imaginary exerts a massive influence over the subject, which originates from the virtually hypnotizing effect of the Specular Image. It is the realm for subject's relationship his own body (or the body image). Hence the simultaneously seductive and disabling dimension, that anchors him on certain fixations (Lacan & Granoff, 1956, p. 272) .

According to Lacan, the Symbolic register owes much of its concept (including its name) to Claude Lévi-Strauss (1949, p. 203). As a linguistic dimension, the Symbolic order is the realm of the Law and Structure and inseparable from Language (Lacan, 1994, p. 189) . But parts of language reside in both Real and Imaginary. Symbolic order is the realm of Death, Absence and lack, hence home for Pleasure principle that regulates the distance from the Thing (*objet petite a* or little desire object) and Death Drive which transcends the Pleasure Principle through endless repetition (Lacan, 1988a, p. 210).

The Symbolic order is characterized by autonomy. It has an immediate dependence to Real and total independence of biology or genetic. Lacan describes the Symbolic register as "*a new function, encompassing whole order in its entirety*". Though its origin may seem to be the Real, its content

-the symbols- are not. Due to its comprehensive dimension, Lacan characterizes the Symbolic as a universe . As non-homogeneous domains, there can't be any seamless transition from Imaginary into the Symbolic register. Symbolic realm, once emerged, creates the immersion that it has been eternally there (Lacan, 1988a, pp. 5, 29, 238). The origin of language, therefore, is untraceable (Evans, 1996, p. 204).

The Imaginary is structured by the Symbolic order in Mirror Stage through language, but it is not structurally incoherent (Evans, 1996, p. 84). For explaining the Mirror Stage, Lacan underlines various relations in imaginary space which contains a symbolic structuring (Lacan, 1988, p. 1) and in 1964 he discusses that the visual field is structured by the laws of Symbolic order (Lacan, 1977a, pp. 91-92).

Lacan located the Real among Symbolic and Imaginary orders, when he invoked the Hegelian correlation between the real and rational in 1953 (Lacan, 1966, p. 226). It is the domain in RSI, according to which all psychoanalytic phenomena may be described (Adrian, 2024). The Real itself, however, escapes any description or for that matter the realm of language and completely immune to symbolization (Lacan, 1988, p. 66). It is beyond language. Unlike Symbolic register which is constituted by oppositions, "*there is no absence in the Real*" (Lacan, 1988a, p. 313; Evans, 1996, p. 162). While he Symbolic opposition between presence and absence indicates a permanent possibility of a missing element from Symbolic order, the Real is always there in its totality, ignorant to any outside factor (Lacan, 1966, p. 25; 1977a, p. 49; in *Evans, 1996, p. 162*).

Symbolic order is constituted by separate, polarized signifiers. The real is unitarian, harmonious, without any fraction at all (Lacan, 1988a, p. 97).

The signification process, the Symbolic slices the Real open As Lacan put it: "it is the world of words that creates the world of things" (Lacan, 1977, p. 65). The realm of signs (words) creates the material world (things).

The Real is constituted by everything remaining outside Symbolic realm (Lacan, 1966, p. 388). It is the impossible (Lacan, 1977a, p. 167). The impossibility of the Real order stems from its absolute impossibility to imagine or to be absorbed into Symbolic order; hence its unattainability (Evans, 1996, p. 163).

The order of Real is characterized by materialism. It is never possible to determine with certainty whether the real is external or internal. It Is both internal and external (Lacan, 1992, p. 118; Evans, 1996, p. 163). Lacan defines this dimension with the term "*extimacy*", the opposition between inside and outside, between container and contained (Lacan, 1992, p. 139). Topological forms like *Torus* or *Möbius Strip* are perfect examples for this expression. An "*extimate*" object is intimately exterior, it is an internal exteriority.

The *lambda* Schema or the Schema L, isa byproduct of this topological approach (Figure 3). Lacan attempts to formalize psychoanalytic theory by means of diagrams and Schema L is his first attempt in topological representation, an unfolded torus converted into a diagram (Lacan, 1988a, p. 243) .

Central to this idea is to represent that the Symbolic relationship between big Other and the subject is always somewhat barred by the imaginary axis (between ego and Specular Image). Since it can't pass through Imaginary "wall of language", the discourse (words) of the big Other reaches the subject in a discontinuous and inverted form. This schematization displays

the opposition between the Imaginary and Symbolic orders, which has been essential in Lacan's psychoanalytic theory.

Es (S) represents the unconscious (Freud's *Id*), and *Autre* the authority figure big Other. This figure is drastically different from the ideal-ego represented at the lower left corner as a promised self-image *moi*. The minuscular *autre* (the other) is ego-ideal the split subject alienated from himself during the Mirror Stage.

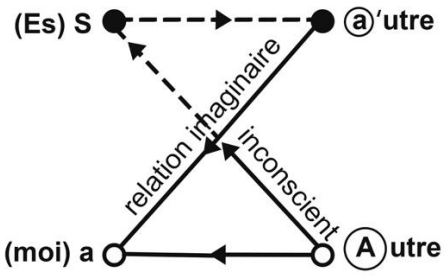

Figure 3. The Schema L (Lacan, 1977, pp. 53, 13, 243).

"If one wants to position the analyst within this schema of the subject's speech, one can say that he is somewhere in A. At least he should be. If he enters into the coupling of the resistance, which is just what he is taught not to do, then he speaks from a' and he will see himself in the subject" (Lacan, 1993, pp. 161-162).

In many cases the Schema L can be instrumentalized for examining inter-subjective relationships. Lacan used it to analyze various settings like the relations between Freud's Dora and her surroundings (Lacan, 1994, p. 142-143).

One of the key components in Lacan's theory is the term *jouissance* (painful enjoyment). He positioned the term across pleasure to produce an

opposition and transgress the pleasure principle of Freud, which was based on the Hegelian/Kojevian distinction between *Genuss* (enjoyment) and *Lust* (pleasure) (Kojève, 1947, p. 46). According to this, the pleasure principle functioned as a restraining factor of enjoyment, limiting subject's enjoyment to a minimum. Transgressing the pleasure principle would cause pain, the pleasure would exceed the amount that the subject can enjoy and cause him pain. This painful experience is what Lacan described with "*jouissance*" (Lacan, 1992, p. 184). This situation can be exemplified with patients who find satisfaction in their symptoms (Freud's "primary gain from illness") (Evans, 1996, p. 93).

The expanse of Lacan's oeuvre is simply too vast to exhaust within the scope of this study, hence only the most fundamental elements of his terminology are briefly explained here. His diagrammatic representations constantly dislocate/relocate the terms in a dynamic way, allowing to constitute inter-relations between previously isolated conglomerations of theoretical domains.

Lacan's approach presents an invaluable methodology for any discipline that attempts to provide a full reflexive account of its own domain. His psychoanalytic approach found many reflections in design theory. Renowned theoreticians like Michael Hays, Elisabeth Grosz, Sylvia Lavin, Hilde Heynen, Catherine Ingraham and many others incorporated his transformative discourse into their design research. However virtually every attempt tackles architecture as the object instead of a subject. Architecture is seen as exposed or subjugated

A Lacanian analysis of "architecture as subject" could provide invaluable lessons for understanding the discipline's fragmented structure. At the

same time, a topological construction of its isolated domains could provide new reflexive positions between theory and design processes. Through utilizing Lacan's topological theory, the following chapter explore architecture's subjectivity in its formation stages.

4.2. Architecture as Split Subject

Throughout its existence, architecture obtained always a projective, localizing function for the individual in his cosmos. It hosts and defines the cultural context for the human-subject, serving as a lighthouse in an ever-expanding, ever-changing ocean of multiplicities. The larger collective domain that immerses us, is constituted by historical, socio-political/economic, ideological and scientific vectors which simultaneously characterize the immediate contemporaneity. Architecture as a speculative, individualized, practice-based discipline, has strong affinities with external and internal theoretical positions and it is these positions that direct, distort, interpret or define its processes. Same mechanism works in opposite direction as well, meaning that practice and theory always have a reflexive relationship with each other in a transformative way. So, when architecture is transformed into any kind of reality in our built/un-built environment, it becomes the main locus for establishing or evaluating individuals' relationship with social and cultural domains of its era. But this relationship keeps evolving as a container of knowledge throughout its existence. It precedes any singular human life or community, whether it preserves its actual or virtual existence across periods.

According to Lorens Holm, architecture could play a vital role in overcoming the effects of capitalist market structure, hyper-speed

information networks and increasingly de-territorialized cultural domains on our collective consciousness, being a unique tool for "developing formal intelligence, historical consciousness, spatial/architectural knowledge and practice" (Holm, 2023, p. 129). Holm's position can be a seen as a support point for the reflexive character between theory and practice in architectural domain or their "lacking" reciprocity.

As discussed in previous chapters, architecture maintained a "thing-in-itself" status with a coherent *episteme* (practice and theory) before the first epistemological rupture. There is no subject position for authorship of any theoretical and practical knowledge. The subject is embedded in the thing-in-itself, absorbing both faculties of signification system in its own corporeality and derives the authorship from an externalized subject: mythos, gods, divinity. The archaic subject and object were one unity in an inner conversation with itself. The Renaissance shattered this unity forever by introducing a different kind of signifying chain into the equality. This new Symbolic order brought with itself separated knowledge domains and dislocated subject-object positions.

For Lacan, the unconscious is structured like language and subjects' formation occurs through speech. His talking subject, *parle-être*, is actualized through the signs of the Symbolic order. Prior to this stage it remains pre-linguistic; its massive mental repertoire is inaccessible. Holm accurately states that the subjectivity is all about the interactions between *Innen*- and *Umwelt*: the relations between subjects and their signs or between different subjects (Holm, 2023, p. 39). The unified domain of architecture then, was still signified through signs for its subjects, but these instruments did not come from an outside domain (Other), but rather from

the inner repertoire of the subject himself. Hence architecture was not a container between inner and outer realms of meaning anymore. The Symbolic order was experienced in an unmediated way, almost as it trespassed into the post-linguistic Real register. The fact that meaning is produced through a system of differences, explains the illusory characteristic of this unity. The Imaginary is the main container of meanings and images, but the difference is produced through the signifying chain and the Other.

We might then claim that the epistemological rupture has had two main consequences. The loss of unity and infinite opportunity for difference. Architecture's split domains (practice and theory) resemble the Fragmented Body (*corps morcelé)* of Lacan. Every encounter with the Symbolic result in different combinations of these domains. But like every other subject, architecture's desire too is "being". This is not so much existence as it is being once more a harmonious "unity" with a coherent meaning. Architecture's encounter with the dividend Symbolic leaves it scarred with a "lack" (*le manque de l'être*). This is the curse of Lacanian subject, as it was explained in the Mirror Stage.

"*It suffices to understand the mirror stage* ... as an identification*, ...: namely, the transformation that takes place in the subject when he assumes an image ...."* (Lacan, 2006a, p. 76).

Architecture inevitably encounters the establishing intervention of the Symbolic, like the design process encounters critique, theory, laws or any other configuring faculty. Its Specular Image in the mirror of cultural reality reveals how it could have been in relation to this big Other, and for a moment it absorbs this deceiving image of wholeness. Thenceforth the

ego-ideal (*moi*) is formed, permanently aware of that it can never be identical to its little "other", "the ideal-ego". This lack constitutes the *jouissance* of architecture. Its striving force for the missing part, the *objet petite a* in every repetitive production until the chain is broken and re-established through a dislocating event. In psychoanalysis this event would have been an event of trauma resulting in an increase of *jouissance*, exceeding the patients limit. The therapy would guide the patient to recognize its inherent lack, his striving for *jouissance* in his constant search for the missing *objet petite a*.

The *jouissance* cannot be understood as the mere satisfaction of a need. It is the fulfillment of a "drive". The drive and the desire in Freudian sense are differentiated in Lacan's theory. The ultimate goal of desire is to obtain and unify with its missing object. The drive, on the other hand, is the thrust, that makes the subject circumnavigate around this object without ever reaching it. This is the main source of *jouissance*. The unification with the object is constantly delayed, extending the search infinitely, producing a painful enjoyment. The void between the object and subject can be seen as a topological realm of free-floating signifiers, which distort raw images from Imaginary and convert them into objects of desire. The brief satisfaction concludes with the realization that the obtained *objet petite a* was a mere representation, a signifier without an actual object, a simulacrum (Lacan, 1981, pp. 161-173;135-136). This endless search is what constitutes the history of architecture, constantly and desperately trying to find that missing piece in every attempt, declaring victory after every small achievement, only to realize the impossibility of the task and start all over again.

"…the mirror stage is a drama whose internal pressure pushes precipitously from insufficiency to anticipation – and which manufactures for the subject, caught up in the lure of spatial identification, the succession of phantasies that extends from a fragmented body-image to a form of its totality that I shall call orthopedic – and lastly, to the assumption of the armour of an alienating identity, which will mark with its rigid structure the subject's entire mental development. Thus, to break out of the circle of the Innenwelt *into the* Umwelt *generates the inexhaustible quadrature of the ego's verifications."* (Lacan, 1981, p. 78).

For Lacan, the desire object resides both in the Imaginary and Symbolic domains. He describes this dual location with the term *extimate* (both exterior and intimate) (Lacan, 1992, pp. 135-136). The Real, that which is beyond language, corresponds here to the intractable materiality of architecture, which constantly threatens the other two from outside to reduce their relationship to a signification link of signs devoid of their signified objects. It is blackmailing the semantic structure with exposure. This is what annihilates the meaning (as an illusion) since every subject sees its reflection in the world and through that meaning it locates itself in the larger collective (i.e. society for individual, city or dominating theoretical position for architecture).

Architecture like every other subject is blinded towards it's desire object. For this failure, Lacan developed a dualistic vision theory in "Of the Gaze as *objet petite a*" (**Figure 4**). According to this, the subject's desire to be recognized (seen) by others is an effect of his desire (lack of being). The diagram on the left represents the geometrical field (typical perspective representation), where the subject of representation is the observer. The

image emerges on the surface between object and himself, while simultaneously barring him from encountering the Real and its disruptive effect (Lacan, 1981, pp. 92,105). Lacan explains the right diagram as the object turning the viewer into a picture under its gaze.

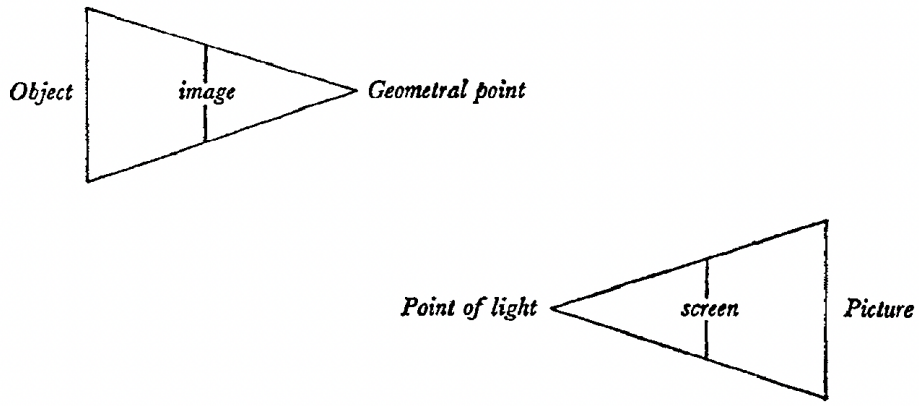

Figure 4. Lacan's vision diagram (Lacan, 1981, p. 91).

Lacan proceeds with superimposition of this to vision fields. The apex where initially the light was located, is now the origin for gaze. And the vanishing point of the previous diagram is represented as the subject (Lacan, 1981, pp. 105-107). The opposing subject and gaze are now organized in the same way as the eye and the vanishing point in perspective representation (**Figure 5**). The screen and image from previous diagrams are now overlapped at the center of the dual triangular fields of opposing visions.

As an additional explanation to Lacan's diagram, Lorens Holm differentiates between the image and picture. That which belongs to Imaginary (the images), and that which belongs to Symbolic (the representing perspective or picture) are differentiated through signifying

chain. Thus, the subject (*moi*) and object of representation (other or *autre*) are put in a spatial relation. By condensing the object and the other, *objet petite a* and the gaze in the vanishing point, Lacan shows that the observer has no means to see his own object of desire (Lacan, 1981, p. 52). Same logic is applicable for the gaze, where the screen functions as a mediating instrument; iteratively negotiating between the observer's line of sight and the gaze of the object. Lacan points out, that this plane preserves the observer from the possibly blinding light, the marginal disruptive nature of the (Lacan, 1981, p. 108).

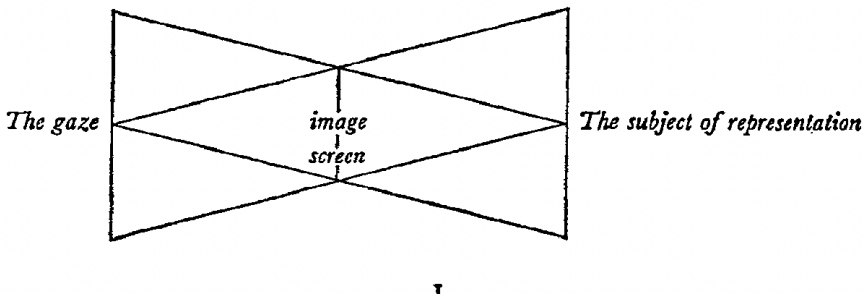

Figure 5. Lacan's operational montage (Lacan, 1981, p. 106).

What does all this mean for architecture? The initial externalizing act in the Mirror Stage with its Symbolic, forces architecture to locate its objects and simultaneously be positioned in accordance with them. It became visible to itself and others as a representation (the possibilities of self-perception in the eye of others are still a representation in subjects Imaginary). From this point on, architecture gains a formal dimension and becomes a subject of language, signification and authority of Other. It is now forever blinded towards its own object of desire. And it is this representational image/screen which preserves architecture from encountering the disruptive effects of the Real.

4.3. *Sinthome* As Fourth Chain in Borromean Knot: The Final Topology of Architectural Subject

Thus far, this study attempted to articulate the *topographics* of architecture-subject, insofar it explicated the roles of Imaginary, Symbolic and Real in its formative processes. However, Lacan initially did not render the RSI model as a stand-alone structure that sustains itself in equilibrium. As the epistemological account already displayed, when confronted with Real, every authoritative structure is destined to face an eventual re-formation at the disjunction points of history. For architecture this was antiquity, reason, *zeitgeist*, progress and during mid 20th century the language until the Symbolic order was no more able to convince architects on its authoritative capacities during the 1990s (Hays, 2022). In context of Foucault, the Symbolic can be compared to the notion of discourse, but Lacanian version is an incomplete one, failing to represent the subject fully (Alcorn, 1994). As its discussed before, this failure is compensated through intra-subjective transactions of *jouissance* between different registers. In this sense the Real is both a driving force and annihilator for the Symbolic, constantly underlining its incompetence to represent the subject in its totalization (lack). This disruption results in a reserved place for desire on the structural fabric of Symbolic: the language (representation). Thenceforth the Symbolic becomes a host surrounding the missing part (Void) and producing *jouissance* throughout its constant striving for its object of desire. This incompleteness is present in all three domains of the Borromean Knot, but each reflect it differently. Symbolic represents this incoherence whereas the Real contains precisely that which is barred from symbolization. Imagination contains this lack as an over-

compensated materiality, driven by the allusion that its "body-object" is a totality and belongs to itself. This is a node where Imaginary identification, and the representative identities attached to it by Symbolic, so that the excluded/barred component of the Real, re-emerge at the stage.

Architecture is the author of the Void in what Lacan conceptualized as the "sublimation" process. As a production mode for cultural representations, the absence of any reciprocity between the signs and their signified objects initially appeared in architecture. This accounts for the discontent of the millennial architecture with architecture's law setting, authority domain during 1990s. Language itself becomes a self-authorized domain during this period, resulting in compete disenchantment with any legitimating or guiding mechanism by theory.

The lack of Symbolic order means the lack of difference hence the cease of production of meaning and cultural representation. It would also represent what Lacan describes as a false knot of Borromean rings, which would result in unraveling of the whole chain structure, with Imaginary, Symbolic and Real registers no more intertwined. According to Jacques Derrida, the legibility of structure of object increases when their content (the living energy of meaning) is neutralized. He compares this with the architecture of an uninhabited or abandoned city, that is reduced to its skeleton by some catastrophic natural phenomena or by hand of man. The traces of meaning and culture would be still haunting this ghost city and precisely because of this the city would not be absorbed back into nature but remain as an artefact (Derrida, 2001, p. 4).

In his lecture for the 50th anniversary of Charlotte College School of Architecture, Michael Hays categorizes the RSI diagram of Lacan with

different aspects of architecture. His content is based on his own architectural exhibition that took place in Harvard GSD in 2022 with the title "*Architecture Before Speech: Inscriptions*". However, the curatorial methodology of the show takes singular architectural projects as subjects of Lacanian analysis and categorizes them under different registers instead of taking architecture-subject as an epistemological domain and mapping its different faculties under the three registers of RSI system. Notwithstanding this vital difference, his discussion proves valuable analogies for projecting architecture as an epistemological subject with its psychoanalytic formation processes.

Using architectural terminology in an analogous fashion, Hays characterizes the Imaginary domain with image, part-objects, encounter, site, scene, fantasy, substitution and syntagmatic operations, whereas the Symbolic register contains the system, totality, code, imposition, ground, datum, concept, trace, replication and characterized as paradigmatic. It also contains the traditions, rules, conventions the law, the mind, whereas the Imaginary would contain the body, the pre-linguistic impressions and their raw content. The former domain is exemplified with Aldo Rossi's architecture of analogy and city as the norm setting law domain (Symbolic). The latter, on the other hand, is typified with Eisenman's excavation cities, particularly his Cannaregio project for Venice. The Real is the container of the Thing and absolute resistant to Symbolization. Following Lacanian concept, Hays defines the Real as an absolute set consisting of everything that simply cannot be imagined and symbolized. But at the same time, he underlines that the content of Imaginary and in this sense, the Symbolic registers effort would be to represent whatever the

Real streams it, as the Imaginary's task would be to fantasize about the feed from Real, although in Real registers this content would be whether representable nor imaginable (Hays, 2022a).

For Hays, transformations in the idea of a Symbolic authority as the guide and legitimator of architectural design constitutes the singular change in the architectural subject. This significant claim calls for closer attention. His idea naturally relies on "architectural design" as the subject. As a post-critical theorist, Hays's main discourse has been always focused on late avantgarde between 1970s and millennium. After the two World Wars architects were completely disenchanted with the authority of technology and progress and after this inflection point, the language became the Symbolic authority, which has been dominating the scene in different disguises ever since. Hays' observation in its effect, considers every architectural design as a totality in the RSI diagram, which transforms different architectures into the components of Imaginary, Symbolic and Real (and later *Sinthome*). This would indicate that Also Rossi and Eisenman's architectural production would have to have a relationship identical to Imaginary and Symbolic in subject formation processes. Hays attempts to overcome this by underlining the meaning axis, which spans between Imaginary and Symbolic and condense their content in their intersection point *sens* (meaning) (Zhang & Hays, 2018).

As mentioned in previous chapters, the meaning is produced through a system of difference within the domain of Symbolic. But intersecting fields of three domains contain differentiated *jouissance* modes. They are encircling the object a, which is the object cause of desire. **Figure 6** shows, that meaning axis is under the disruptive threat of the Real, which is

constantly threatening to reveal that the reciprocity between body and signification (representation) is but a virtual construct, condemned to eventually collapse. This results in constant regeneration of this axis with new emerging meaning pairs.

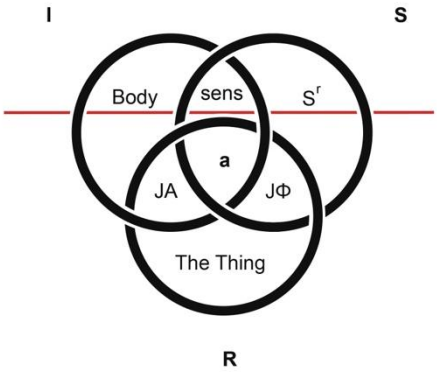

Figure 6. Axis of meaning (redrawn by author via Hays (2022a))

In the overlapping areas, two registers intersect, with the third one always excluded. These are the realms of *jouissance*, that hassle painfully enjoying its missing third. Hence the joint between the Imaginary and Symbolic (I/S) presents itself as *sens*. However, this is not meaning per se, rather a sensation, an affect that localize in the body or object, transcending the Symbolic order. This is the *jouissance* of the body or bodily sensation, affect. There is a schizophrenic character to the *sens* as it's both the Imaginary and Symbolic but simultaneously neither of these realms, that is neither body nor the signifier.

When the Real is excluded, architecture is left with the intersection of its normative structural domain and pre-linguistic domain. We could compare this to the mirror stage in pre-linguistic phase of the child. In this field,

pre-mature domain of architecture encounters the image of its body and gains a divided self-consciousness between its Specular Image (ego-ideal) and self-image (ideal-ego). So, when the body is constructed and experienced as an image, it is split between self-image and representation. This pre-linguistic stage of alienation is compensated by a bodily sensation that endures the aching inconsistency between the image and self: the *jouissance* (more accurate for this case: *jouis-sens*).

This sensational enjoyment is conducted through embodiment of the body in a signifying way (Lacan, 2007, p. 23). According to Éric Laurent there are existing bodies and there are phenomena that refer to the body without belonging to it (time, void, effable and place). He describes these as effects of the signifier on the body, insofar as this body becomes a symbolic one (Laurent, 2016a, p. 31). He explains this sensation as "*the symbolic body's encounter with the flesh releases the object a as incorporeal, as an outside-the-body effect, as 'jouis-sens'* (Laurent, 2016a, p. 34).

In another talk for the exhibition *Beta-Real: The Materiality of Loss* in Syracuse University, Hays describes this position as an architecture of babble, stutter, mumble, uncertain of itself: pre-linguistic or in architectural sense pre-theoretical. This "*lalangue*", Lacan's reference to the term lallation, is how the image of the body animates its enjoyment (Prieto, 2011). It is a pre-stage of the articulated language. Hays compares this with the humming in music as a way of getting close to the Thing without the companionship of the signifier, which represents an affective convergence through sensing and allowing it to be a multiplicity without anchoring and making it exclusive. Thus, this defines an architecture at its beginning phase, uncertain of itself. Hays explains this with the way in

which architecture has materialized that is in a signifying way like the body in mirror stage (Zhang & Hays, 2018).

In our discussion this pre-linguistic phase resembles the architectural *episteme* as a coherent unity, before the introduction of orthographic production. Like the embodiment of infant' *corps morcele*, this unity too was a signification. The *jouissance* of this stage depended on its material sensation, atmospheric qualities and its distinguishing function for the individual between the cosmos and his own realm.

Lacan distinguishes between three modes of *jouissance* that occupy the joints of his Borromean Knot. The overlapping section of the Symbolic and the Real (S/R) is defines as the *Jouissance* of the Signifier (JΦ). Michael Hays calls this an impossible combination because the content in Real (which is the Thing) is beyond symbolization and comprehension. Conceiving something that would be both real and symbolic sounds inconsistent (Zhang & Hays, 2018).

To be able to attend any thought, it needs to be signified through a system of difference, the language (Hays, 2022a). The sign is a tool to process and manipulate pieces of the Real, but at the expense of actually knowing them, seeing them, truly comprehending them, because the signifier is a mask, an outer surface for the unrepresentable. When once a signifier is superimposed on a fragment of the Real, infinite other possible signifiers are excluded. The combination of Real and the Symbolic excludes the body, which is the property of the Imaginary. Therefore, it is completely dematerialized, stripped of any substance, object-ness. In architectural domain, Hays exemplifies the JΦ with generalized codes like typology, geometry, ordination, ornament, metaphor, symbolism.

In this sense the *Jouissance* of the Signifier can be seen as the painful enjoyment of an episteme for the sake of theory. It belongs to the word, to letter. This can be seen as another epistemological discontinuity similar to isolated design activity, but this time for theory. Hays discusses that this might be called the "*Jouissance* of the Theorist", for theory attempts to make models of things, to compensate for its lack of "body" and the pain of knowing that infinite other signifying possibilities are lost through being anchored to this theoretical (Symbolic) position (Zhang & Hays, 2018). By excluding the body, it aims to produce unity, but this is a falsified, colonizing unity, since it lacks the reflexivity.

The last mode of *jouissance* in the Borromean Knot is located at the intersection of the Imaginary and the Real and is called the Other (Autre) Jouissance (JA). This domain doesn't have any part of Symbolic. Hays describes it as the "*jouissance* of double negativity". It is the painful enjoyment of the lack itself in a bodily way, where the word is not relevant or adequate anymore (Zhang & Hays, 2018). It is the *jouissance* beyond speech. This uncertain character reinforces architecture with potential by refraining from fixation and regulations.

The absence of Symbolic opens a vast field for encounter and event, for emergence of new combinations. There is no identity nor any authority which imposed on architecture. This position would correspond for a reflexive position between theory and practice, as the outcome of neither is determined initially. It is the locus for any event which wouldn't have been possible without architectural act. Michael Hays characterizes this JA with fully architectural objects rather than objects of desire. He calls them

manifestations of a desire, which is not effable yet. A desire for something that we can't yet speak of (Zhang & Hays, 2018).

This super-linguistic position both precedes and extends beyond the Symbolic dimension by excluding it. For Lacan, the *Jouissance* of the Thing (Ja) is related to anamorphism in fine art. According to this, a distorted stain is added on a painting, which can't be identified from frontal view. But when observed obliquely, it reveals its content. In Lacan's theory, anamorphism has deep connections with "void" concept and architecture.

"This object [anamorphism] could never have been produced, never have had a necessary meaning without a whole preceding development. There is behind it the whole history of architecture as well as that of painting, their combination and the history of this combination." (Lacan, 1992, p. 135)

Like Lacan's whole theoretical structure of subject formation, architecture too is organized around a missing unity too, an unattainable void between heterogenous domains. Lacan represents this void with the concept of "Thing", which is essentially the unrepresentable (Freudian Ding) in the Real (Saint-Cyr, 2012). This is not a nothingness per se, but rather an existing non-object, an "impenetrable void", a victim of the signifier in the Real register (Lacan, 1992, p. 118).

"The empty space, this nothing of the jug, is what the jug is as the holding vessel. In creating the jug, the potter does not create a thing, or rather it creates a thing only to the extent which, in a manner of a creation ex nihilo, "he shapes the void. For it, in it, and out of it. Thus, the vessel's thingness

does not lie at all in the material of which it consists, but in the void that holds." (Heidegger, 2001).

Reminiscent of Heidegger's metaphor, Lacan shows that the Thing can be represented by the vase. Vase fulfills the function of signifier and merely characterized by the void it creates (Heidegger, 2001). In this sense, the vase becomes the silhouette of the void it envelopes. As a sign of the Symbolic, the vase is not designated to a particular object; a non-object as an imaginary representation of an ultimately unrepresentable entity (Lacan, 2006, p. 569). This elevation process is Lacan's version of Freudian "sublimation".

The ontological reciprocity between Thing and the emptiness only emerges upon the attempt of representation. The void is elevated to the status of a Thing, insofar the Thing is a sign around the emptiness (Lacan, 1992, p. 193). Viviana Saint-Cyr explains the Lacanian paradigm of sublimation as going from the desired imaginary object to the "veiled", inaccessible symbolic Other, which upon statutory elevation no longer constitutes an imaginary object covering the emptiness but rather emerges as the edges/borders of it.

Primitive architecture (temples or other places of worship), in Lacan's own words: *"… can be defined as something organized around emptiness*". In terms of anamorphism, painting too is something wrapped around the emptiness. For Lacan, this "*sacred emptiness*" of architecture has its locus "*in the emptiness that is founded by painting*" (Lacan, 1992).

The elevation of the object to the status of Thing can only occur through sublimation, which is a composition around a void. The other thing that is imposed on the void (painting) to veil it, represents architecture. In this

context, painting is the act of covering a void, and its proximity is closer to Imaginary than Real. The architectural act, on the other hand, is the creator of the void and is henceforth closer to the Real than Imaginary.

Architecture transforms the void into something familiar, connecting us with our inherent emptiness as subjects driven by desire. The void becomes something familiar. It creates the void without Imaginary's involvement, which Lacan formulates as having a "primitive sublimation of architecture" (Lacan, 1992, p. 175).

Architecture appears then as a mere void, a presentation of the emptiness it surrounds. Hays' formulation about JA (Other *Jouissance*) becomes more meaningful when juxtaposed next to his comment on Heidegger 's jug:

"*Contemplating issues like memory and loss as a form of thought in architecture, which is not always affirmative but can be thought of in terms of absences and even negativities in meaningful ways would provide a useful intellectual exercise … "*

The history of architecture is seen as a pre-determined, manifest destiny, as if the architectural theory and its relation to practice could have developed only one way. But this one way reveals itself with a mountain of lost opportunities. The grasp of the world is the loss of the mOther and this drama belongs to architecture-subject as well. The grasp of a disciplinarity/autonomy/ostensible independence left architecture disconnected from its identity. And this loss is monumentalized through one too many artefacts across time.

After exploring three modes of *jouissance* in his RSI model, Hays renders the fractured Symbolic and its gradual deflation in face of other registers

(**Figure 7**). At the center of the Borromean Knot contains the symptom (*a* for *objet petite autre*) which is quite different than Freud's symptom. Lacan's symptom is codified with the formula f(x)=a, f being a function of the *jouissance* and x any element from the unconscious (Jourdan, 2023). The symptom draws an unrepresentable element from the Unconscious, charges it with any of the three modes of the *jouissance* and elevates it into the consciousness. With the symptom gaining on strength, the tripartite knot starts to shrink. The Symbolic keeps deflating, and the symptom keeps inflating.

Hays resembles the center of RSI system to a hole, where the symptom reaches down and pulls pieces of unconscious to gain substantial strength (Hays, 2022a). As a result of this process the symptom becomes a fourth ring, which is called the *Sinthome* (Lacan's homophonic name in old French for his re-functionalized symptom). In other words, under constant pressure from Real and an inherent lack from subject formation phase, the Symbolic starts to lose power. With a deteriorating Symbolic order, the flow of meaningful connections slows down and eventually stops. The rings of the knot are intertwining each other in such a way that they cannot sustain themselves independently. Thus, the whole chain is about to fall apart. This is the moment for an element from unconscious being empowered by the symptom as a compensating act. The whole system is sustained through the new emerging *Sinthome* ring which is denoted with Σ (**Figure 7**) (Hays, 2022a).

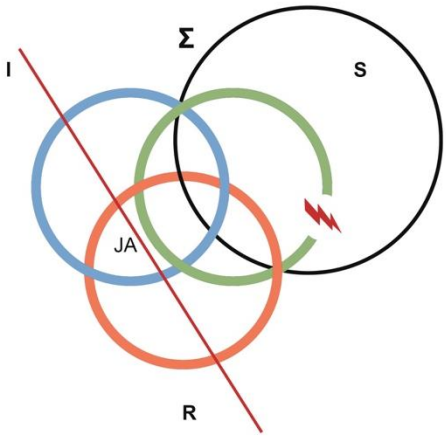

Figure 7. Emergence of *Sinthome* and new axis for meaning [reproduced by the author from Hays (2022a)].

The new ring brings with itself a new potential for a new kind of sense, a new kind of *jouissance*, an information gathering organ which can function without needing the Symbolic which is now overthrown by the *Sinthome*. This new axis spans between the Real and Imaginary, as an alternative to the initial meaning axis between Imaginary and the Symbolic.

The *Sinthome* is not a platonic shape per se but rather a distorted topological extension, which Lacan explained with various versions in his Seminar XXII (**Figure 8**). The concept *Sinthome* is based on Lacan's reading of James Joyce's novel Finnegan's Wake where he traces the traces of Joyce's father and his influence on his art. After his analysis of Joyce's work, Lacan argues that Joyce's father abdicated from paternal function and that the entirety of Joyce's oeuvre represented a compensation for his loss, a new *jouissance* (Lacan, 2016, pp. 72-74). His

discussion on Joyce leads him to consider a possibility of a false knot in the Borromean ring at the formative period of the subject.

Figure 8. The schematization of *Sinthome* formation (Lacan, 2007)

The idea of *Sinthome* appears as a compensating condensation of *jouissance* on a substitute at the exact place where the error occurred. So, to prevent the psychosis which would result from the deflation of the Symbolic, a fourth ring as an amendment is introduced to the chain system. Later Lacan arrives at the conclusion that out of the three formative registers of subjectivity, the Symbolic is always doomed to fail, hence the *Sinthome* is for every subject's formation a mandatory component (Prieto, 2011).

This model represents us an architectural system which wouldn't depend exclusively on the Symbolic authority and remain open for new potentials without the distortions that result from the representative character of the language system. At the same time architectural domain would be emancipated from the destructive authority of the Symbolic and its transformations at the inflection points of history. The *Sinthome* is neither a message nor a metonymic component. Although mandatorily arbitrary, it is still a native component of architectural unconscious. When it's charged with the energy from one of the three *jouissance* modes, it

becomes what Lacan calls a *letter:* an element outside of signifying chain and henceforth outside meaning. The *Sinthome* belongs to the register of *saying,* which affiliates it with the Symbolic but designates it with a Real function (Prieto, 2011). To this function, Lacan designates the task of *ek-sistence* between three registers. This Heideggerian term about *Dasein* implicates the standing out from itself and other beings to provide an open field for being (Richardson, 1967). Through the application of *Sinthome*, the formerly destructive Real could be integrated into the formative Borromean system.

For architecture to distance itself from inter-disciplinarity and instrumentalize its own mechanisms in knowledge production or being informed from these theoretical positions, an emancipatory act is necessary. The tyranny of Symbolic realm allows no new knowledge production but mere signifiers for existing ones. New knowledge and acts of knowing (design and theory) are only then possible, if architecture would use its own *jouissance* modes as an attentive force towards the lack on the fabric of the Symbolic and use it as the ground zero for constructing genuine knowledge structures and new reciprocities (Lacan, 2016, p. 18). Lacan locates all signs within the realm of the Other, which then governs the flow and directions of subjects *jouissance*. The new ring allows the architecture-subject to coincide with the Real, whilst granting the Imaginary dominance over Symbolic. Thenceforth it would be possible to base architectural act on the material surface of the Real instead of representative signifiers of the Symbolic. With the dissolution of the Symbolic authority, the split domains of theory and practice would be able to construct new connection axis across Imaginary and Real. This

reflexivity resulting from this situation might constitute the *Sinthome* ring of the architecture: A non-authoritarian signification tool with a "discoursive" character.

5. Conclusion

The previous account started with exploring architecture's formation as a (split or barred) subject. As a medium of language, architecture is simultaneously an interlocutor for the relations of subjects to itself and surrounding collectivity. Its operations produce and organize the representations of Real, translating them into cultural signification systems.

Architecture is above all an action-based domain and considerable part of its processes are pre-linguistic. On the other hand, its normative structures display strong affinities to discursive regimes upon closer observation. What should be the pre-dominant source of knowledge for architecture? Is an authoritative structure necessary for design? What kind of knowledge is produced during design process? What is architect's position in this discussion? Is architectural criticism truly architectural? Is architectural theory obsolete or irrelevant? These have been some of the most vital questions, directed towards architecture in past century and constitute most of the rhetoric part in theoretical and practical domain. Clearly there can't be no absolute correct answer to any of these questions. On the other hand, every attempt to situate architecture to larger knowledge matrices (diverse multiplicities), provide valuable information for highlighting intra-disciplinary borderlines, as well as trivial inter-disciplinary transgressions. The post-linguistic psychoanalytical theories of Jacques Lacan are complex constructions, which are not always easy to comprehend. Certain

abstractions have been necessary along the discussion to keep the focus on architecture and its enshrouded mechanisms. As a finalizing thought, a closer look at Lacan's discourse theory might provide informative dimensions regarding the disconnections within the disciplinary operations. The departure point for this account will be again another collective structure, which envelope/situate/pervade architectural domain. According to Freud's argument, civilization is a defensive mechanism against our own drives and its foundations lay on the surrender of our instincts for collective "good" (Freud, 1930, s. 34). Architecture is discussed in this study as a cultural representation mode for the individual. The major inflection points in history resulted in radical transformations of this role.

According to Holm, collective structures like society or city can be described as construction of discourses. Rossi's analogous city or Vitruvius campfire constitute examples for this (Holm, 2023, p. 116). Following Lacan's trace of thought, Holm proposes construction as a form of discourse to gather and locate individuals in collective space. As concluding part, this study will adopt an analogy to this approach to discuss how Lacan's fundamental discourse models could provide fertile grounds for analyzing possible reciprocities between architecture-subject's split mechanisms.

In *Seminar XVII* (1969) Lacan introduced a concept of master's discourse following the trail of Aristotle's Politics, which underlines the differences between "know-how" or *technê* of the slave and the *epistêmê* (philosophical or master knowledge). In this concept the slave class with its practical know-how constitutes the load bearing structure for

"knowledge". Philosophy, as overarching master domain of discourse aims to assimilate the knowledge of the slave. The episteme is conditioned to produce a knowledge that would allow signification and transmission. This "philosophical knowledge" is always taken from craftsman on loan, re-organized and distributed upon extraction of its essence (Lacan, 2007, p. 13, 22, 148-149). The concept of master discourse is based on the Hegelian master-slave dialectic, where the slave's dependence on his master is countered by the master's dependence on the slave for his enjoyment. Lacan states that this equation converts the slave at the end of history to absolute knowledge (Lacan, 2007, p. 120).

Epistêmê has always been in close consideration to skill, practice and *technê.* Critobu'lus wanted to gain knowledge (*epistêmê*) which would grant him dominance over good souls and beautiful bodies (Xenophon, 1979, p. II.vi.30). For Socrates the knowledge of justice was different then knowledge of letter (skill) (Xenophon, 1979, p. IV.ii.20). For Plato, a craft is defined by its purpose and constitutes a knowledge domain. This know-how would allow the understanding of the goal, which can be articulated in an organized account. In *Laws* the Athenian slave doctor relies on experience has no such account to transmit his procedures. The free doctor, on the other hand, has an account for this know-how and can communicate it to his patients to make them participate in the treatment process (Plato, 1997, s. 1406).

Holm exemplifies this explanation with Brunelleschi and master discourse for perspective representation. He argues that Brunelleschi used the know-how of an existing studio in Florence for assimilating their know-how on perspective drawing. He uses this extracted know-how to produce new

knowledge, new subject and new object. Holm underlines that the exactness of application of the know-how doesn't necessarily determine one or another as the source of knowledge. Perspective drawing was after all codified by Alberti, who belongs to next generation. Hence the difference between know-how and knowledge comes from authority. Brunelleschi's demonstration promoted the *technê* of perspective to *epistêmê*. Only then he was able to denominate this new knowledge and distribute it to public realm (Holm, 2023, p. 116-117).

Holm conceptualizes the city as the locus of discourse because it is on city grounds (or in collective structures) where information becomes knowledge. Lacan calls the city as "battery of signifiers", which corresponds to S2 in his master signifying chain. In this context city actualize the processes which transform the information to knowledge for subjects. In *Seminar XVII* he differentiated know-how from episteme, former being subject of latter, and latter being authorized by a master discourse (Lacan, 2007, p. 13).

A similar context could be instrumentalized for architecture-subject's knowledge as well, which is undergoes same transformative operations of cultural domains, disciplinary societies or other networks like Freud's civilization. In a later seminar, Lacan underlined the distinction between information and knowledge and claims that the value of knowledge is determined in accordance with its use of value (Lacan, 2007, p. 97). He argues that knowledge has been already structured by the Symbolic. Information becomes knowledge with the intervention of the signifier that represents a subject or another signifier. In his master's discourse S2 represents the signifying chains which retroactively appear as knowledge

to its subjects. The entire system is depending on the S1 as the principle organizing the field of facts into discourse form (knowledge) (Lacan, 2007, p. 117).

In *Seminar VII* Lacan gives his discourse schema its final form (**Figure 9**). The master's discourse becomes the fundamental form of a signifying structure it aims to demonstrate the linguistic structures beneath social urban relations (Lacan, 2007, pp. 12-14). Discourse apparatus is constituted by four components: The agent, the other, the product and the truth. An agent is a signifier for a truth attends the other and produces an object. Each one of this position is occupied by a function. S1 is the master signifier, while S2 constitutes the signifying chain of the knowledge. $ is the barred subject split by the Symbolic (language). The miniscule a is called in this context the *jouissance*, which was introduced as *objet petite a* in other contexts but now more like an open variant (placeholder) (Lacan, 2007, p. 17). The master signifier S1 is the origin point of every function in each discourse.

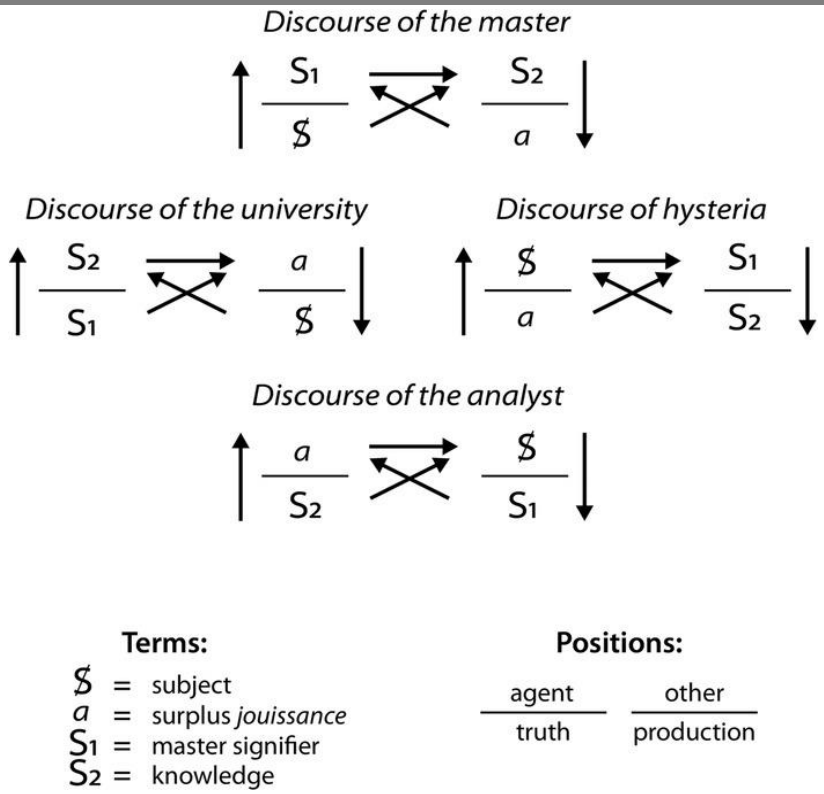

Figure 9. Four Discourses of Lacan (2006) (No-Subject: Encyclopedia of Psychoanalysis, 2024).

In this form of fundamental relation, S1 intervenes in S2 to produce knowledge. When S1 starts to represent a subject, the initial source of know-how or information (S2) starts to produce knowledge. This representation is inaugured by S1's intervention in the field of S2. Lacan positions the master signifier in the position of agent. The agent is the signifier for the barred subject beneath the axis of signification and addressing knowledge (S2) as its other. It is displayed as other, because without S1's intervention it would have remained as information (Lacan, 2007, p. 13). In a way S2 is the ego-ideal of the know-how. Now if the discourse contains the truth, it will be the truth of the subject. This

apparatus inter-connects subjects, others and objects together in four different variations.

Holm exemplifies the master discourse with urbanism or architecture. Where most planning acts constitute a discursive matrix. Hausmann's axial boulevards (S1) imposed on medieval practice of Paris (S2) constitute what de Carteaux called a top-down intervention (discourse). On the other hand, the Kowloon Walled City, built largely within unplanned parts in Hong Kong, is an example of hysteria discourse, where the subject's desire (a) is inscribed on the body of the building ($) as a revolt against the repressive nature of the planning apparatus (S1) (Holm, 2023, p. 119).

The discourse function turns its components around one quarter clockwise whilst moving from the master's discourse towards discourse of the university. Hence the S1 in master's discourse becomes the S2 in discourse of hysteria and so on.

All four positions and Lacan's later added capitalist discourse can provide very intuitive and genuine survey possibilities for architectural domains of knowledge, research, design and knowledge, which exceeds the scope of this chapter and deserves a separate study.

The totality of this study thus far shows that every discourse contains an internal fiction, which constitutes its driving force. And like every other subject, architecture-subject's master discourse too, naively strives a mastery over its own knowledge domain. The Real is beyond comprehension and symbolization. And the access to any thought prerequisites a representing signifier, which is far removed from the truth that architecture seeks. This problem is inherently philosophical. How can

we design and theorize architecture, when we are its authors and desperately lack any instrument outside its toolbox? This is the single most important question to underline architecture's obligations towards its own autonomy. This idea of self-sufficiency does by no means mean isolation. However, it involves a certain skepticism towards inter-disciplinarity. Like Lacan's discourse structures, a sharp precision is necessary for a receptive, yet critical stance towards collective disciplinary unconscious of architecture and enhancing intra-disciplinary mechanism while mapping the larger theoretical domain seems to be only solution for overcoming the presented dilemmas.

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[i] Lacan didn't begin to assess this triadic ring structure in topological terms until 1970s (Evans, 1996, p. 19).

[ii] Michael Hays (Architecture's Desire: Reading the Late Avant-Garde; 2010), Hal Foster (Return of the Real; 1996) or Sylvia Lavin (Form Follows Libido: Architecture and Richard Neutra in a Psychoanalytic Culture; 2007) can be named among some of most prominent examples.

[iii] The beacon for this crisis was initially lit by Italian architecture historian Manfredo Tafuri, for whom architecture became the flawless instrument for capitalist development, colonizing forces and patriarchy since the dawn of the Enlightenment (Tafuri, 1973, p. x).

[iv] Lacan claims that this impotence, departure from natural harmony with surrounding environment corresponds to Hegel's "fruitful illness" conception. By divorcing from his essence, man would discover his own existence [(Lacan, 2006b, p. 286) in (Payne, 2024)].

[v] Foucault's main differentiation oscillates between two conceptions of history. First one is a passive, transcendental, eternal, universal and invariable mythos, that he defines as "total history". This narrative reflects the past as a continuity of central patterns, organized around a consistent meaning structure. As an alternative to this pre-modern position, Foucault suggests an active and critical historiography, that refrains from comprehending any event, reality or phenomenon as a constant phenomenon and simultaneously abstains from fortifying any holistic theoretical position. Foucault's "general history" concept is largely produced by interruptions, disjunctions and anomalies which are organized as a centerless network-like structure, ever expanding across time and space under the influence of non-organizational, random factors. Unlike its rival, this historiographical act doesn't claim to explain the world and its events as a holistic, consistent continuity with all its dimensions. In contrast to linear chronological historiography, this position empowers time with a spatial dimension, considering that the dispersion of triggering factors appears in different locations with different magnitudes and mostly independent of each other (Foucault, 1972, pp. 7-14).

[vi] Although Vitruvius' treatise clearly states that since the Antiquity there has been a drawing system based on orthographic projection methods in architecture (Vitruvius, 2017, p. 32). Turkish architect Aykut Köksal discusses that from the 5th century until the end of Middle Age these representation techniques were mandatorily suspended. Emancipated from metaphysical transferences, the builder established an immediate connection with physical reality (without being restrained by two-dimensional drawings). This immediacy based his production on his practical knowledge "during" construction rather than a mental and intellectual production that had to take place "prior" to it. Architectural activity was mainly based on in situ technical vocations, connecting the architect with his mind to the metaphysical domain, while his hands kept him in contact with physical domain simultaneously (Köksal, 2009, pp. 19-22).

[vii] In addition to Alberti's, various other treatises by the 16th century architects like Antonio Filarete, Francesco di Georgio, Sebastiano Serlio, Andrea Palladio, Giacomo Vignola and Vincenzo Scamozzi drew on a strong distinction between the manual and intellectual production of architecture; between architect and master builder (Mallgrave, 2006, p. 27) (Forty, 2000, p. 136).

[viii] Adrian Forty underlines Panofsky's discussion about this subject in the context of Renaissance art theory in Idea [(Panofsky, 1968, pp. 60-62) in (Forty, 2000, p. 141)].
[ix] In Lacan's terminology the big Other (fr. *Autre*) represents the authority figure and it's nature is radically different from oneself. This symbolic Other plays a vital role in subject formation through language.
[x] Unlike Aristotle, Descartes differentiated objects in relationship to their x and y distance to an absolute zero point in space, a method which would be known as Cartesian coordinate system. His analytical geometry emancipated knowledge from objects properties, dissolved Aristotle's finite, hierarchically organized space conception and replaced it with an abstract, infinite space system (Stanford Encyclopedia of Philosophy). Descartes' Cogito established a separation between spirit-body, idea-space pairs through his terms res cogitans (thinking thing) and res extensa (extended thing). Material would expand in space and the spirit contemplates (thinks) (Descartes, 2020).
[xi] The establishment of *Académie es Beaux-Arts* in 1671 demarcates the first step in this transformation (Mallgrave, 2005, p. 2).
[xii] Foucault uses Las Meninas, a painting by Diego Velazquez from 1656, as an example for this: "*And indeed representation undertakes to represent itself here in all its elements, with its images, the eyes to which it is offered, the faces it makes visible, the gestures that call it into being. But there, in the midst of this dispersion which it is simultaneously grouping together and spreading out before us, indicated compellingly from every side, is an essential void: the necessary disappearance of that which is its foundation – of the person it resembles and the person in whose eyes it is only a resemblance. This very subject – which is the same – has been elided. And representation, freed finally from the relation that was impeding it, can offer itself as representation in its pure form*" (Foucault, 2002, p. 17).
[xiii] This term is translated by Sheridan as "want-to-be" and by Schneiderman as "want of being" [see (Lacan, 1977, p. 259) in (Evans, 1996, p. 95)].
[xiv] "*Lacan has a Cartesian mistrust of the imagination as a cognitive tool. He insists, like Descartes, on the supremacy of pure intellection, without dependence on images, as the only way of arriving at certain knowledge. It is this that lies behind Lacan's use of topological figures, which cannot be represented in the imagination, to explore the structure of the unconscious (see TOPOLOGY). This mistrust of the imagination and the senses puts Lacan firmly on the side of rationalism rather than empiricism (see SCIENCE*)." (Evans, p. 85).

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Monumental and Historical Religious Buildings in the Contexts of Cultural Heritage, Urban Identity, and Sustainable Design

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1. Introduction

The monumental and historical religious buildings are valuable elements of cultural and architectural heritage. Konya has been one of the most important main centers of Turkish-Islamic culture and art in Anatolia and it has been an architectural center throughout its history. In this respect, Konya has valuable elements of cultural and architectural heritage. The city has preserved its importance for many years as the capital of the Anatolian Seljuk Civilization and as one of the important state centers of the Ottoman Empire (Baykara, 2002). Mosques and masjids built during the Anatolian Seljuk and Ottoman Periods provide the formation of the urban morphology of our civilization and create a distinct typology with their architectural design properties (Anıktar et al., 2020). Creating an inventory of these buildings is important for the protection of cultural heritage and urban identity.

Mosques, which are cultural and architectural heritage religious buildings, represent a central area where people gather for their daily and weekly prayers. They are also considered an educational, cultural, and social space for Muslims' activities. Compared to other building types, they are characterized by having an unique intermittent operation plan. They are used simultaneously in a specific region and time zone. This has an impact on the energy demand depending on the climatic zones during the heating and cooling periods of the mosque building (Al-Homoud et al., 2005). Mosques include a large prayer hall that is used intermittently during congregational prayers, five times a day. The occupancy rates of mosques vary in daily times and Friday noon prayers (Azmi & Kandar, 2019). In this respect, providing comfort conditions in the interior in an energy-

efficient is an issue that should be carefully evaluated. At the same time, daylight is one of the important factors affecting indoor comfort conditions. In Islamic architecture, daylight is important in terms of providing visual comfort conditions for worshippers. In addition, daylight performance is an important parameter that will affect the total energy demand of the building. Since lighting is the energy user, daylighting can significantly reduce the total energy consumption (Lechner, 2015). As form-givers in architecture, it is important to provide heating, cooling, and lighting demands with sustainable methods. Energy efficiency, thermal comfort parameters and daylight control in architectural designs are handled as sustainable architecture's main inputs.

The climate-related design properties of mosques affect the interior comfort conditions and the thermal performance of the building (Abdou et al., 2005). Therefore, the sustainability and energy efficiency of the mosques depend on the overall thermal performance of the building components such as walls, roofs, and openings working together as a system (Al-Homoud et al., 2009). Especially in terms of energy efficiency, the heating and cooling load of the mosque is important because more energy is consumed to provide comfort conditions in a mosque with poor thermal performance. In the study of Al-Homoud et al., indoor comfort conditions were analyzed for three mosque buildings located in the hot humid climate zone of Damman, Saudi Arabia. The relationship between these comfort conditions and the consumed energy levels was evaluated. In the study, only one of the mosques had a thermal insulation layer in the envelope. It was reported that two uninsulated mosques had higher levels of energy consumption and dissatisfaction in terms of thermal comfort (Al-

Homoud et al., 2009). In addition, the various studies show that older buildings have lower energy loads due to their compact urban layout and the use of materials with thermal mass convenient for climatic conditions (Azmi et al., 2021). In the study of Abubakr Ali & Ali Mustafa (2024), visual comfort in prayer halls by investigating the effectiveness of daylighting performance, including daylight amounts, such as illuminance level and daylight factor, and glare, including daylight glare probability, in different mosque morphologies examined. As a result, it is stated that mosques with courtyard lighting have reduced glare, and windows placed uniformly along the vertical axis get lots of natural light and visual comfort levels in the prayer halls, in turn, vary according to the mosques' morphology.

This study aims to question the formation process of Konya city, to create an inventory of monumental religious buildings that are references to this formation, to determine their place in the historical process, to explain the relationship between mosques and cultural heritage and urban identity, to determine the typologies of plans, sections, facades of Anatolian Seljuk and Ottoman mosques, to explain their construction techniques and material properties, and to analyze the buildings in terms of sustainable design approach. The sustainable design approach is focused in energy efficiency, thermal comfort, and visual comfort. It aims to investigate the relationship between the architectural design properties of monumental mosques and energy-efficient and comfort parameters. There is not enough research in the literature about this context. In this respect, this study is pioneering in terms of future studies for cities and buildings that have historical and architectural value.

2. Material and Method

This study is prepared within the scope of the Scientific Research Project (BAP). Monumental mosques built in Konya during the Anatolian Seljuk and Ottoman Periods are handled. First of all, using the analyzing technique in the literature, information about the mosque buildings belonging to the Anatolian Seljuk and Ottoman Periods, and Konya city are collected. The historical development process of the city and its relationship with urban identity are explained. The buildings are visualized with the drone and their features are documented with photographs. Drawings in the electronic environment are taken from the Konya Regional Directorate of Foundations are colored, and their current situation is based on on-site determinations and their relations with their immediate surroundings. are processed on the drawings. The plan, section, facade, and roof cover elements are explained and design typologies are determined in the light of the information in the literature, drawings, and visuals. At the same time, the construction technique and material properties are explained. Religious buildings' architectural design properties were documented are modeled in the Design-Builder simulation software. Models specific to mosque buildings that have characteristic properties are developed in the DesignBuilder simulation software, taking into account the users, occupancy rate, and usage times. According to the simulation results, the heating-cooling and total energy consumption of the mosques and masjids are analyzed. Thermal comfort and daylight and visual comfort analysis are performed. The evaluations are explained in line with the findings.

3. Findings and Discussion

In this section, the monumental historical mosques built in Konya are explained in terms of cultural heritage, urban identity, and sustainable design approach. The sustainable design approach refers to energy-efficient design, thermal comfort parameters, daylight and visual comfort parameters.

3.1. The Monumental and Historical Religious Buildings in the Contexts of Cultural Heritage and Urban Identity

The architectural formation of the city of Konya, where the multi-layered culture and the architectural elements of these cultures coexist, has provided the city a cultural and urban identity. Ottoman and Anatolian Seljuk Mosques are important architectural design elements that shape the identity of the city of Konya and its urban and rural landscapes.

Konya, which has been an architectural center throughout its history, has many historical and cultural heritages, as well as the heritage of pre-Islamic civilizations, as the capital of the Seljuks and one of the important provincial centers of the Ottoman Empire (Baykara, 2002). Konya, an important city since prehistoric times, has reached its current identity through the overlapping of different cultural layers. The monumental religious buildings in Konya, especially those built during the Seljuk and Ottoman periods, are considered cultural heritage.

The visual structure of the city is formed by place and work. This structure is formed over time and always changes. But just as a person has the same identity from birth to death, cities remain the same in the consciousness of societies no matter how much they change (Kuban, 2002). Konya, one of the examples of this situation, is a city of great importance in terms of its

location on the Silk Road in Anatolia, its geographical properties and its importance in the historical process.

The city center has developed around the plain. Throughout history, Konya has developed as a single-centered city. The center of the city is Alaeddin Hill and its surroundings (Figure 1). The historical city center, located between Alaeddin Hill and Mevlâna Kulliyye, is the most accessible area in the city, where the central functions are still concentrated, in addition to its historical identity (Ter & Özbek, 2005). The fact that Konya is located in a geography where trade routes intersect has preserved the city's importance throughout history.

Figure 1. Alaeddin Hill and its surroundings (Photograph by the authors, 2019)

Konya, one of the oldest settlements in Anatolia, has hosted different civilizations (Yenice, 2012). Defined as one of the oldest settlements from the Neolithic Period, Çatalhöyük is located within the borders of the Çumra district of Konya. Regarding the historical development process of Konya, Çatalhöyük is important because it is one of the first settlements in

Anatolia and an important settlement area of the prehistoric period. The city hosted settlements from the Chalcolithic and Bronze Ages, Hittite, Phrygian, Roman, Byzantine, Seljuk, and Ottoman periods. The first monumental structures with administrative and socio-cultural functions, such as palaces, mansions, mosques, and madrasas, brought an exemplary typology suitable for the Anatolian-Turkish city model to Konya.

During the Roman Empire, the city was settled on Alaeddin Hill and the south side of the hill. During the Byzantine period, Alaeddin Hill maintained its residential characteristics. During the Byzantine period, the city expanded northwards. Especially during the Seljuk period, the city had great importance and was declared the capital. As the capital of Anatolia during the Seljuk period, it became an important accommodation and trade center. It expanded to the north of the historical core. Konya being the capital had great effects on architecture. The city developed considerably in cultural, economic and social terms during this period. Since the city was also on the Silk Road route, important architectural structures were built in the city center and its surroundings. Many madrasahs and mosques were built after it became the capital. During the Ottoman period, the physical development of the city expanded to the east of Alaeddin Hill in the 15th and 16th centuries, and to the south and southeast of the hill in the 18th and 19th centuries.

The Konya's historical heritage is shaped by the development during the Seljuk period. The smallest unit of Seljuk cities is the neighborhood, and the basic unit of the neighborhood is usually the masjids, which give their name to the neighborhood. For example, Bulgur Tekke Masjid is located on Bulgur Tekke Street. The mosque, which was built in the second half

of the 13th century, was built in masonry technique. In Figure 2, Bulgur Tekke Masjid's photograph is shown.

Figure 2. Bulgur Tekke Masjid (Photograph by the authors, 2019)

With the construction of the palace and grand mosque during the Ottoman period, the historical focus of the city developed around the administrative and religious center. Aziziye, one of the Ottoman period mosques, is magnificent in terms of its location, scale, texture, space, and facade decorations (Figure 3). Like other Ottoman mosques, it is in a position that defines the square-like space in front of it. The mosque was built as a synthesis of Baroque, Empire, and Rococo styles. The building material built in the masonry technique is cut stone. The mosque's mihrab, minbar, and windows are decorated with baroque motifs (Figure 4). The hand-drawn decorations of the mosque were made by Konya Calligrapher Mahbub Efendi. The Aziziye, one of the valuable examples of multi-layered cultural accumulation, is of great importance in terms of Islamic architecture, cultural heritage, and urban identity.

Figure 3. Aziziye Mosque (Photographs by the authors, 2019)

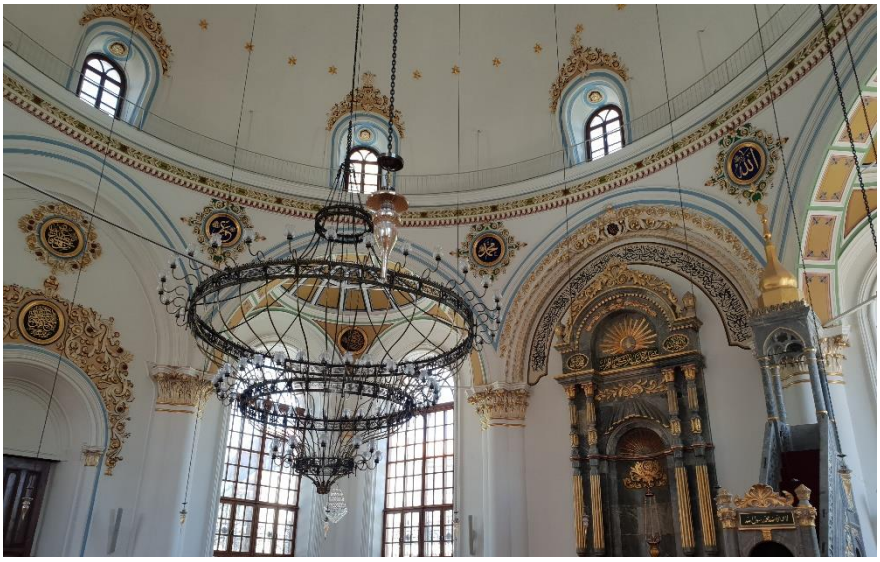


Figure 4. Aziziye Mosque Interior Space (Photographs by the authors, 2019)

In this respect, this study handles the monumental mosques built in Konya during the Anatolian Seljuk and Ottoman periods. It is aimed to create an inventory of these buildings, which have great importance in terms of urban and cultural identity. At the same time, it is aimed to investigate religious buildings in terms of energy efficiency, thermal comfort, and daylighty performance.

3.2. The Monumental and Historical Religious Buildings in the Context of Sustainable Design Perspective

In the long run, sustainable design is not an option but a necessity. Sustainable design includes a large set of parameters, and the energy parameters are a large subset thereof (Lechner, 2015). As an important part of the sustainable architecture approach, energy is important for civilized life. Energy efficiency and the climate-compatible design approach is not an unknown phenomenon in human history. The idea of utilizing renewable energy resources such as solar and wind in the history of humanity dates back to ancient times. Ancient Greeks knew that buildings and cities must work in harmony with their climate region if they were to provide human comfort sustainably (Heywood, 2015). The Ancient Greeks realized the importance of site planning for the heating and cooling of buildings and they considered their solar design of buildings and cities to be modern. The Romans were also convinced of the value of solar heating, so much so that they protected solar access by law (Lechner, 2015).

Daylight has great importance in the history of humanity and architecture. Until the second half of the twentieth century, the daylighting history and the architectural history were one. From the Roman groin vault to the Crystal Palace of the nineteenth century, the major structural developments in buildings reflected the goal of increasing the amount of light that was collected. For example, Gothic architecture was especially a result of the quest for maximum window area, large and numerous windows were a dominant characteristic of Renaissance architecture. Daylight, which is an important design element in terms of human sensory

experiences, is also of great importance in terms of building physics (Lechner, 2015). In this direction, it is important to research the design properties of monumental mosque buildings, which are the elements of religious and cultural heritage and are effective in the formation of city identity, and their relationship with sustainable design.

Climate-dependent building design is the most important parameter of the sustainable architecture approach, especially energy efficiency. This parameter is also effective for a mosque building with characteristic properties. Daylight is very important for visual comfort in a building of worship, and is also an important factor affecting the total energy load of a religious building. In this section, the relationship between the energy efficiency and thermal comfort parameters and the architectural design properties of monumental mosque and masjid buildings are analyzed. At the same time, religious buildings are analyzed in terms of daylight and visual comfort parameters in line with their architectural design properties. Visual comfort includes the ability to provide sufficient daylight.

Monumental and Historical Religious Buildings' Energy Analysis

In this study, Şems Tebrizi Mosque is handled among the mosque and masjid buildings analyzed within the scope of the scientific research project. Şems Tebrizi Mosque which dates back to the 13th century, Anatolian Seljuk Period, was built using masonry technique. The mosque and the tomb were built adjacent to each other. Şems Tebrizi Mosque's form is rectangular and the building has three spaces in terms of plan organization (Figure 5). The mosque's top cover property is a pitched roof. The religious building order is detached. The Mosque's height (h) is 12.30 m and the total area is 271 m^2.

Figure 5. Şems Tebrizi Mosque and Its Plan (Photograph and image by the authors, 2019)

Regarding construction techniques and material properties, Şems Tebrizi Mosque's wall material is stone, the wall thickness is 100 cm, and the bond technique is masonry. In terms of window-wall ratios depending on directions, east 5.43, west 4.06, north 4.05, and south 6.07. The Windows ratios are 1/2. The Mosque's top cover technique is a wooden construction pitched roof and the top cover material is plumbing. There are no openings on the top cover. The mosque's flooring material is wood flooring. The Mosque's minaret was built masonry technique and minaret material is cut stone. In Figure 6 Şems Tebrizi Mosque's A-A Section is shown and in Figure 7 Şems Tebrizi Mosque's east elevation is shown.

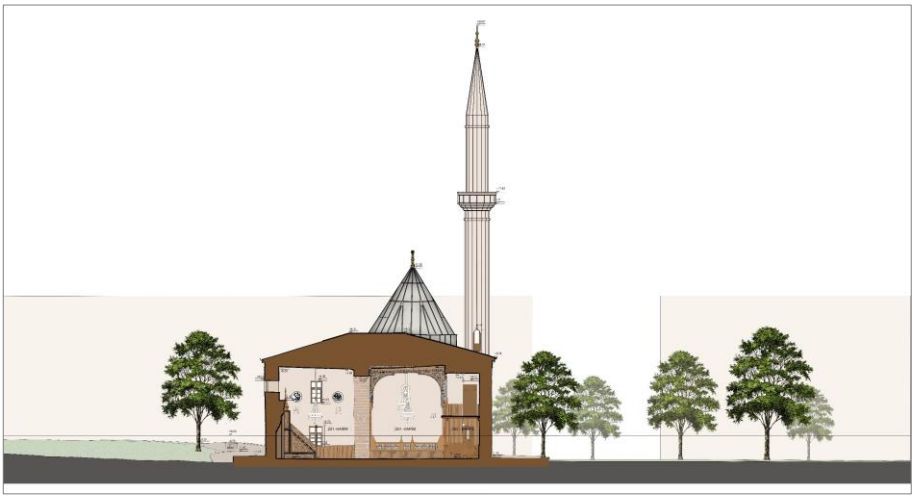


Figure 6. Şems Tebrizi Mosque's A-A Section (Authors, 2019)

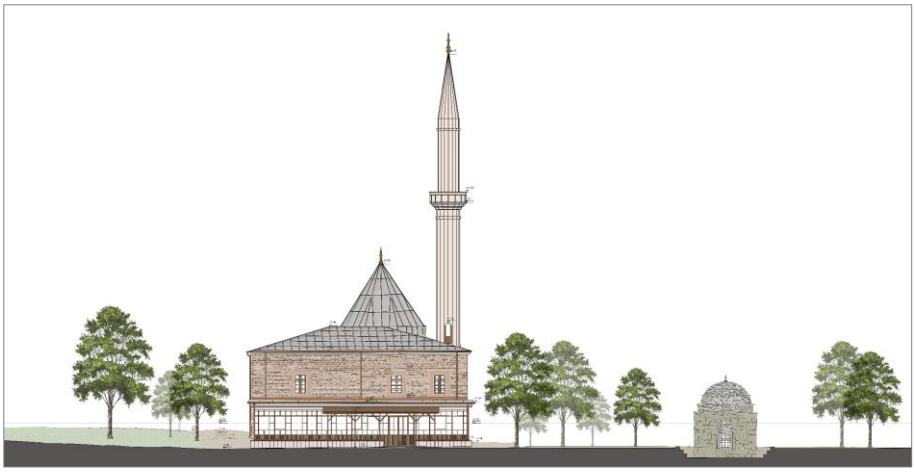


Figure 7. Şems Tebrizi Mosque's East Elevation (Authors, 2019)

Konya is located in the temperate-dry climate zone of Türkiye. The period in which heating is important in temperate-dry climatic regions. Passive design parameters that affect the energy demands of a building are the location of the building, the distance between other buildings, building orientation and space design, building form, building envelope optical and thermophysical properties, solar control, and natural ventilation layout

(Lechner, 2015). It can be said that these design parameters are also valid for a mosque and masjid building. However, mosques and masjids have elements that direct their basic design such as qibla, qibla wall, mihrab, and minbar. In this respect, the orientation of mosques with a characteristic design approach is the direction of the qibla. The orientation of the Konya mosques (their qibla), which are handled within the scope of the study, is in the south direction. In terms of building form, the mosque's form is rectangular, which should be in a temperate-dry climate zone.

Building order is important in terms of the building's climate-related design properties. The distance between the buildings, the heights of the buildings and their locations according to each other affect solar radiation and wind factors. Therefore, passively benefiting from or being protected from the effects of sun and wind changes depending on the settlement texture and distance between buildings. In this respect, it is one of the parameters that directly affect the building's energy demand. The Şems Tebrizi Mosque has a detached order. The energy modeling of Şems Tebrizi Mosque is shown in Figure 8, and the heating-cooling and total energy loads per m^2 are shown in Figure 9.

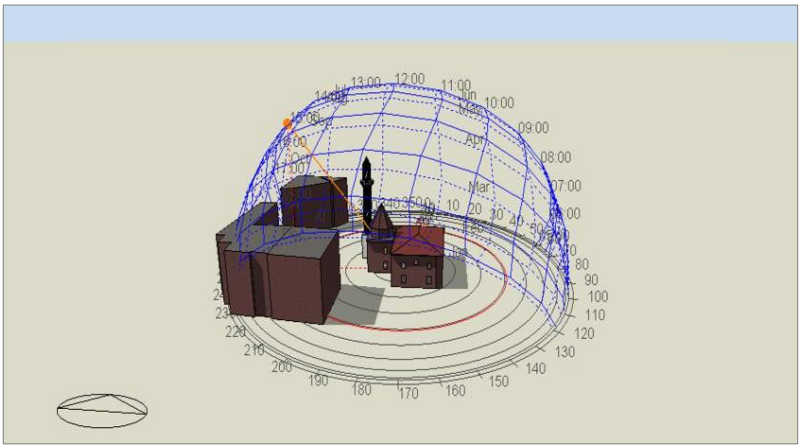


Figure 8. Şems Tebrizi Mosque Energy Model (Authors, 2019)

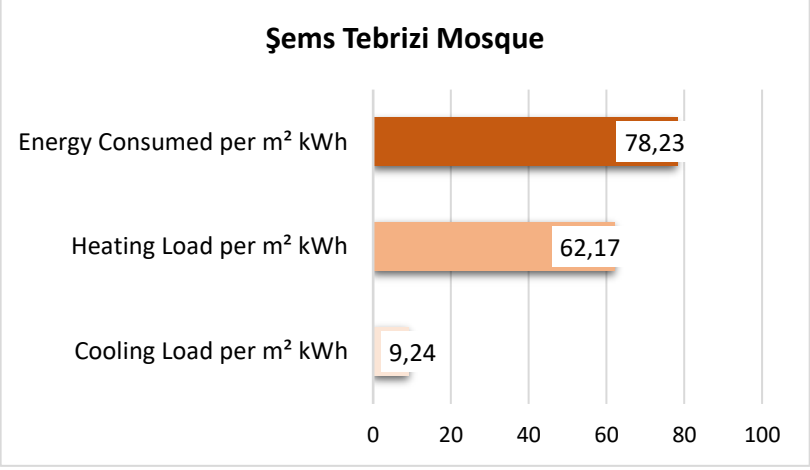


Figure 9. Şems Tebrizi Mosque Energy Consumption (Authors, 2019)

As shown in Figure 9, the annual cooling load per m^2 of Şems Tebrizi Mosque is 9.24 kWh, the heating load is 62.17 kWh, and the total energy consumed per m^2 is 78.23 kWh. Total energy consumption represents the sum of heating, cooling, and lighting energy loads.

Building envelope optical and thermophysical properties are effective in determining the amount of heat transfer through the opaque and

transparent components of the building envelope and indoor air temperature and building energy demand. Şems Tebrizi Mosque's wall material is stone and wall thickness is 100 cm. Stone building material are qualified to contribute to the heating and cooling loads of buildings in terms of thermal performance. The thermal conductivity properties of the opaque and transparent components of the building envelope are important parameters that can affect the energy demand of the buildings. The thermal conductivity of the wall varies depending on the building material properties and wall thickness. The period that was built Şems Tebrizi Mosque (13th Century), the type of stone material used, the wall thickness of the mosque, and the type of glass used in the openings should be handled as factors affecting the thermal conductivity of the wall. It can be stated that the building materials used in the analyzed mosque are qualified to reduce the energy load of the buildings.

The opening ratios of the mosque are different depending on the directions. It should be noted that openings in the south direction provide direct solar radiation gain, but multi-directional openings, especially in the north direction, cause heat losses. In this respect, it can be said that the openings depending on the directions are the affect the mosque's energy consumption. Design properties such as building materials, wall thicknesses, top cover properties, directional openings, and thermal conductivity are the properties that make a difference between the energy loads of the mosques. In addition, building volume should be handled and evaluated as an important factor. Design properties such as building materials, wall thicknesses, top cover property, directional openings, and thermal conductivity are the properties that can affect the heating, cooling,

air conditioning loads of the mosques. In addition, building volume should be handled and evaluated in the context of the energy efficiency.

Monumental and Historical Religious Buildings' Thermal Comfort Analysis

Thermal comfort is provided by balancing the heat gains and losses of the human body, while controlling environmental conditions such as temperature, humidity, etc. Seasonal characteristics and activities performed indoors are important factors affecting thermal comfort. They are factors that require increasing or decreasing the heat value of the space. Thermal comfort parameters can be classified as environmental and user-related. Environmental parameters include air temperature, air humidity (relative humidity), average radiation (radiant) temperature and air speed. User-related parameters include users' clothing and physical activity status. It is important to feel comfortable while praying in a mosque. Various models have been developed to relate the feeling of comfort of the person to the relevant factors. ASHRAE is used to evaluate thermal comfort conditions and is important (Al-Homoud et al., 2009).

Şems Tebrizi Mosque's B-B section is shown in Figure 10 and thermal comfort results are shown in Figure 11. According to the temperature graphs, it was seen that the outdoor air temperature, radiant temperature, and indoor air temperature values were generally close to each other for the Şems Tebrizi Mosque and other religious buildings examined. The main reason for this situation can be stated as phase canceling. Thermophysical properties and thickness of the building wall are factors that affect phase shift. Phase shift is a condition that supports thermal

comfort, and the wall thickness and material properties of the buildings examined provide this situation.

Figure 10. Şems Tebrizi Mosque's B-B Section (Authors, 2019)

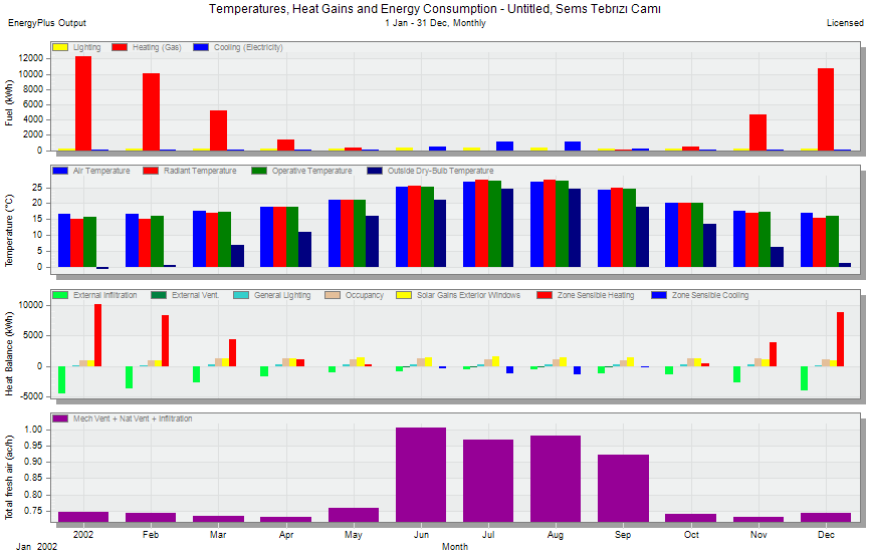


Figure 11. Şems Tebrizi Mosque's Thermal Comfort Graphic (Authors, 2019)

According to the results regarding heat balance, heat transfer in mosques consists especially in cold periods when heating is required. It can be stated that this is due to the openings in the building envelope. Window elements, old joinery due to construction dates, and wall compositions can cause heat transfer. Solar gain from windows varies depending on the building. In

particular, it has been observed that the solar gain rate of Hacı Hasan Mosque is higher than other structures. The size of the windows, their thermal conductivity properties, and whether they are single or double-glazed are among the reasons for related results.

Although the total fresh air rate in the interior spaces of the examined buildings varies, it is seen that these rates are higher between June and September compared to other months. The important factor of indoor air circulation is natural ventilation. The results are related to factors such as the location and size of openings that affect natural ventilation.

Monumental and Historical Religious Buildings' Daylight Analysis

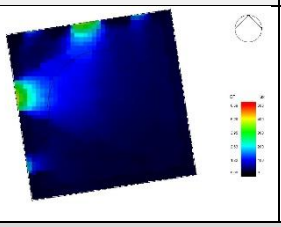
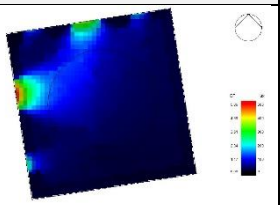
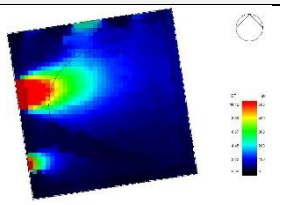
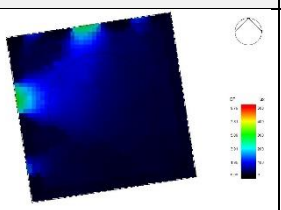
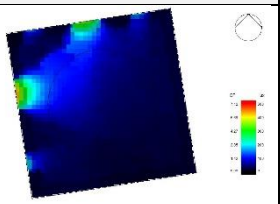
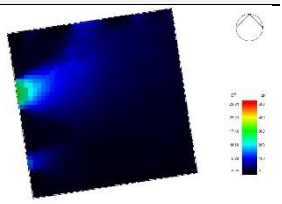
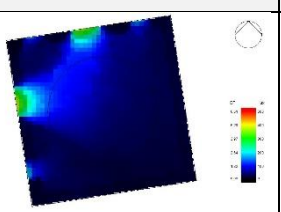
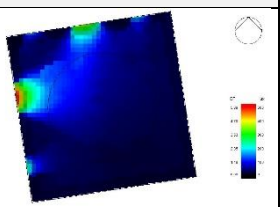
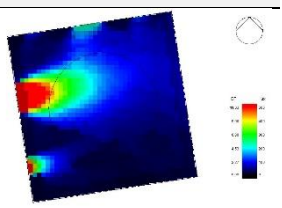
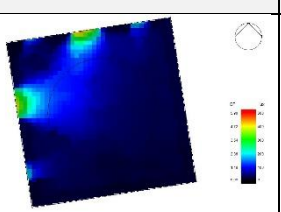
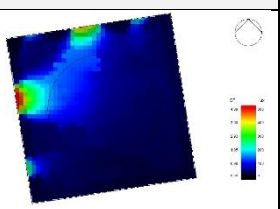
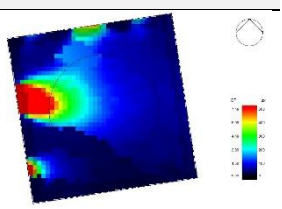
Within the scope of the scientific research project, monumental and historical mosques and masjids are investigated in terms of visual comfort and daylight. It is aimed to emphasize the importance and development of daylight for Anatolian Seljuk and Ottoman religious buildings in Konya in the context of architectural design properties of different periods. In this section, Şekerfüruş Masjid is handled among the mosque and masjid buildings analyzed in terms of visual comfort. The findings are explained in the light of Şekerfüruş Masjid and the religious buildings examined within the scope of the scientific project.

Religious buildings are modeled in the Design Builder simulation program and visual comfort analyses were performed. Mosques are compared in terms of different design properties and average illuminance levels are analyzed for each mosque. The simulation was carried out on June 21, September 21, December 23, and March 21, when the winter, summer and mid-season equinox occurred. In the study, the simulation dates and times

are taken as 09.00, 15.00, and 17.00 in line with Konya's sunrise and sunset data.

Table 1 includes analyses showing the annual indoor daylighting performance of Şekerfüruş Masjid. Şekerfüruş Masjid was built in 13th century, Anatolian Seljuk Period, and the construction technique was masonry. The mosque is one of the single-domed mosques of the Anatolian Seljuk Period and has a square plan. The mosque area is 83.81 m^2 and the height (h) is 9.73 m. There is a lighting window in the upper and middle parts of the west and east facades, a window to the right and left of the mihrab in the south, and a lighting window in the middle of the facade on the upper level. The illuminance level of the masjid building varies according to seasons and dates. The different illuminance levels at different points are related to the size and location of the openings.

Table 1. Şekerfüruş Masjid Annual Indoor Daylight Performance

September 21, Clear Day		
09.00	12.00	17.00
		
December 21, Cloudy Intermediate Day		
09.00	12.00	17.00
		
March 21, Clear Day		
09.00	12.00	17.00
		
June 21, Clear Day		
09.00	12.00	17.00
		

The findings obtained within the project's scope provided the analysis of the daylight performance of mosques and masjids, as well as the

comparative analysis of the daylighting performances of these religious buildings built in different centuries and with different construction techniques. The research results also show that the upper windows in the dome provide the daylight factor that transmits daylight in the central locations of the interior spaces of the mosques. In mosques with no windows or openings in their domes, the center of the mosque has a low illumination level. This shows the importance of the dome design and the effect of the upper window openings.

In the transition from Anatolian Seljuk to Ottoman, there was an improvement in construction techniques. In terms of the top cover, the most prominent difference is the cover design and the transition technique to the dome. In this respect, while there are openings in the domes in Ottoman Mosques, there are no openings in the domes in Anatolian Seljuk Mosques. Figure 12 shows the Şekerfüruş Masjid built during the Anatolian Seljuk Period, and there are no openings in the masjid's dome. Figure 13 shows the Aziziye Mosque built during the Ottoman Period, and there are openings in the Mosque's dome.

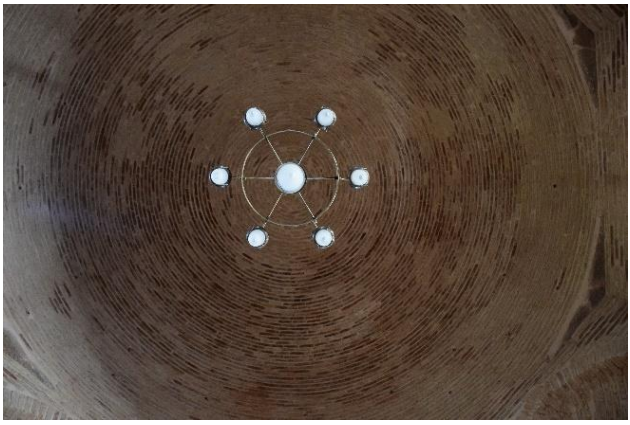


Figure 12. Şekerfüruş Masjid, Anatolian Seljuk Period, Dome (Photograph by the authors, 2019)

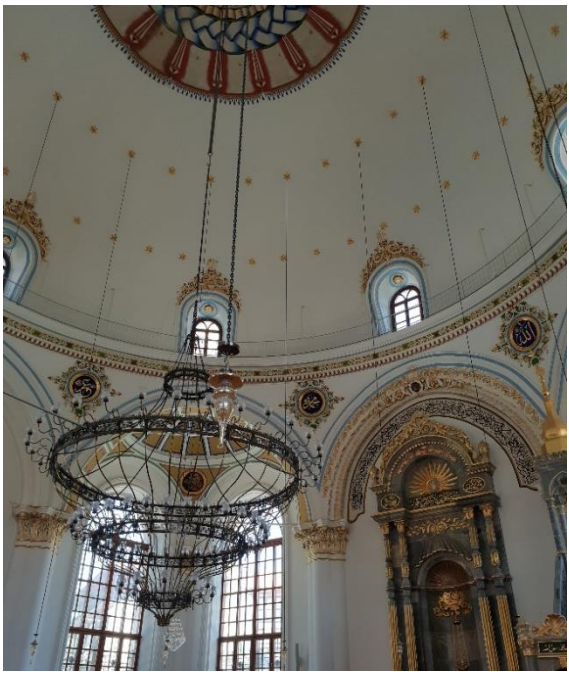


Figure 13. Aziziye Mosque, Ottoman Period, Dome and Openings (Photograph by the authors, 2019)

This study proves that as the construction techniques and design properties of mosques have developed from past to present within the scope of Islamic architecture, illumination levels and the maximization of light reflected from the interior have also increased and become more effective. It should also be stated that daylight analyses of pitched-roof mosques and masjids were also carried out within the scope of the project. As a result, window/wall ratios, upper window properties, special dome design criteria, and long opening distances that provide higher levels of daylight to the interior with the development of the load-bearing system are architectural design properties that affect the illumination level of a mosque.

4. Conclusion and Suggestions

This study evaluates the monumental and historical mosque buildings in Konya, one of the most important main centers of Turkish-Islamic culture and art, built in the Anatolian Seljuk and Ottoman Periods in terms of cultural heritage, urban identity, and sustainable design. First of all, the monumental mosques' and masjids' plan, top cover, section, facade properties, construction techniques, and material properties have been documented. The energy consumption of the Anatolian Seljuk and Ottoman Mosques is investigated, and thermal comfort and visual comfort evaluations are explained. It is of great importance in terms of religious and cultural heritage to create an inventory of these mosques, to determine their place in the historical process and their current situation, and to analyze them in terms of energy efficiency and comfort parameters.

Traditional design properties and construction techniques are seen in the examined mosques. In terms of material use, the use of materials with a thermal mass that is traditional and appropriate for climatic conditions is a sustainable approach that will affect the mosque buildings' energy demands. It can be said that historical mosques and masjids are valuable and important buildings in terms of energy efficiency in line with the energy loads consumed per m^2. They are energy-efficient in line with today's energy needs and traditional design features and construction techniques. At the same time, it is concluded that building volume is an important factor for these building types in terms of energy efficiency. The Design Builder simulation software calculates the energy loads per m^2. It has been determined that this is inadequate for buildings where volume is an important factor, such as monumental mosques and masjids, and that

volume-related analysis results are required. In addition, the study of visual comfort parameters in monumental and historical religious buildings is a guide for designers. It is believed that it is a beneficial study to emphasize the importance of daylight in religious buildings where the sense of sacred worship is valuable and for cultural heritage and a sustainable environment.

As a result, it is important to create an inventory of Seljuk and Ottoman Mosque and Masjid buildings built in a historical process, as well as to analyze them in terms of comfort parameters and energy efficiency. It can be said that monumental and historical mosques are valuable and important buildings in terms of cultural heritage, urban identity, and sustainable design perspective. Monumental mosques built during different civilizations shaped the physical development of the city and also provided it an identity. Considering the deficiency of studies in the field of monumental mosque buildings, urban identity, and sustainable design methods, it is expected that this study will create potential research scopes for future research.

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The article complies with national and international research and publication ethics. Ethics Committee approval was not required for the study.

Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article. There is no conflict of interest.

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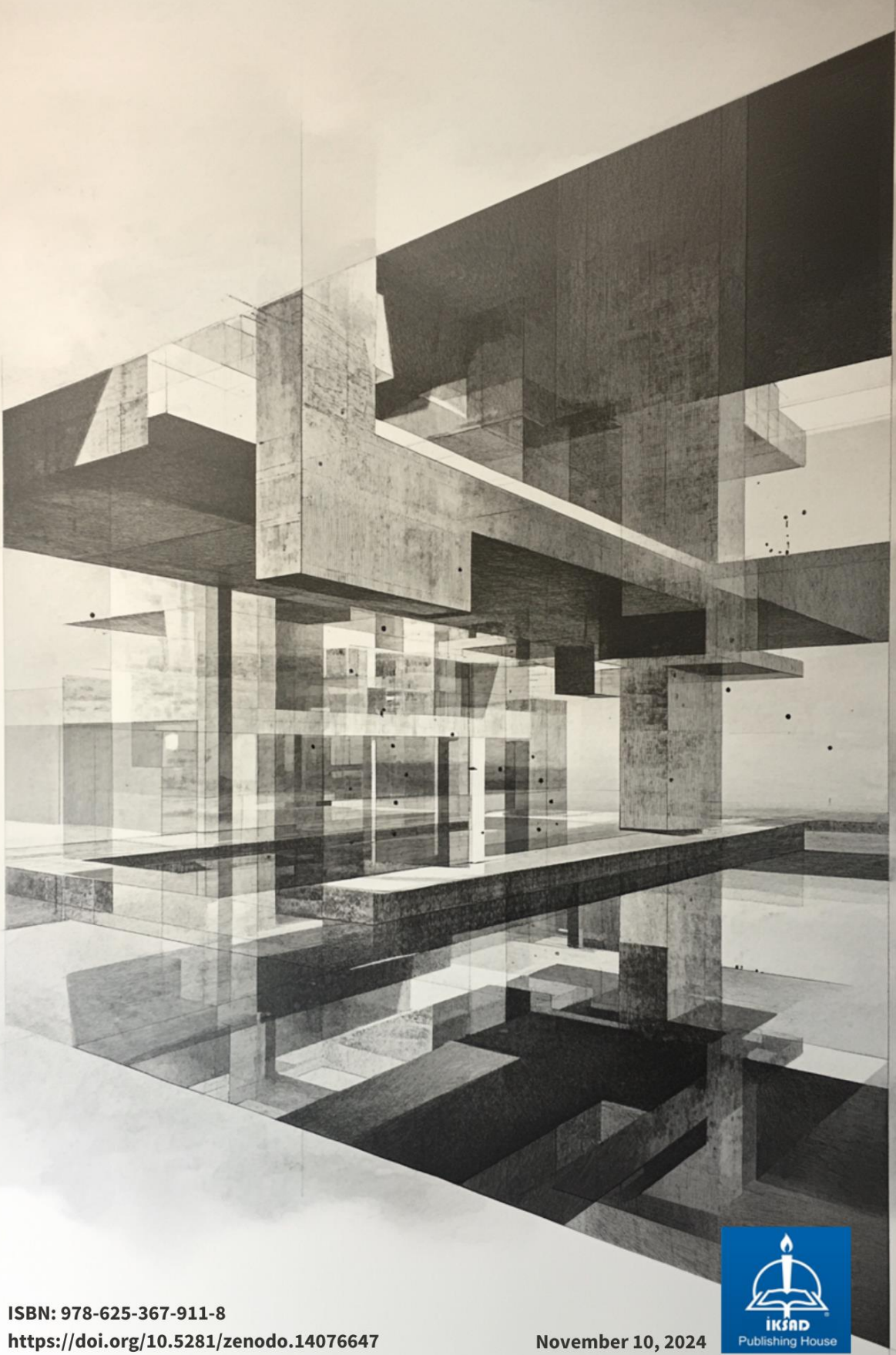

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