TOBB UNIVERSITY OF ECONOMICS & TECHNOLOGY
GRADUATE SCHOOL OF ENGINEERING AND SCIENCE

INVESTIGATION OF AESTHETIC EXPERIENCE AS A POTENTIAL FUNCTIONAL ASPECT OF ARCHITECTURE

MASTER OF ARCHITECTURE

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ABSTRACT

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This research investigates the potential influence of the aesthetic experience and the functional aspect of architecture on each other. Accordingly, this study aims to present a philosophical investigation of the emergence of aesthetic experience in relation to the functional aspect of architecture as well as its potential of being an architectural function. It is possible to claim that humanity can interact with its environment through the functional aspect of architecture. There are discussions that the relationship between users and architectural spaces can go beyond benefiting from the necessary physical conditions that architecture provides for its users to execute their required and desired actions. An architectural space having a sensuous impact on its users supports the existence of certain experiences. Philosophy discusses such phenomena with phenomenological thinking as one of its branches and psychology studies them with perceptual and cognitive science. The user-architecture relationship and its intellectual and psychological causes can be considered as a case of aesthetic experiences. Therefore, at the point where quantitative properties of architectural spaces achieve non-measurable qualities, the user-architecture connection can be moved to the field of aesthetics discipline as a form of communication, recognition, and a way of knowing. The overall focus of the discipline of aesthetics has been the study of the

experience and the judgment of taste that occurs as a result of the interaction between the aesthetic subject and the aesthetic object. It is possible to claim that, in architecture, the aesthetic subject resembles the user and the aesthetic "object" corresponds to the space that architecture defines and its overall form. To be able to investigate the aesthetic relationship between the user and space through the functional aspect of architecture, the concept of appropriateness is explored. This concept argues for the emergence of an aesthetic quality from what is made appropriately to its intended use. This understanding originates from the philosophers of Antiquity, yet it is also possible to see architects throughout the history of architecture stressing the notion of being appropriate in their practice. It is possible to see this consideration through the form-function relation as well as user-function relation in architecture. This indicates that function-related investigations can be conducted through concepts of aesthetics. Accordingly, this research articulates aesthetics' potential place among varying functions that architecture possesses by conducting philosophical investigation and explores its functional characteristics.

Keywords: Architecture, Aesthetics, Architectural functionality, Form-function relation, Aesthetic experience, Function of aesthetic experience, Philosophy of art and beauty

ÖZET

Yüksek Lisans Tezi

MİMARLIKTA POTANSİYEL BİR İŞLEV OLARAK ESTETİK DENEYİMİN İNCELENMESİ

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TOBB Ekonomi ve Teknoloji Üniversitesi
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Bu araştırma, mimarlığın estetik deneyimi ile işlevsel yönünün birbirini nasıl etkilediğini araştırmaktadır. Bu doğrultuda bu çalışma, estetik deneyimin ortaya çıkışının mimarlığın işlevsel yönü ile olan ilişkisini ve mimari bir işlev olma potansiyeli üzerine felsefi bir inceleme sunmayı amaçlamaktadır. İnsanlığın çevresi ile mimarlığın işlevsel yönü üzerinden etkileşime girebileceğini iddia etmek mümkündür. Kullanıcılar ve mimari mekanlar arasındaki ilişkinin, mimarinin kullanıcılara gerekli ve arzulanan eylemleri gerçekleştirmeleri için sağladığı fiziksel koşullardan yararlanmanın ötesine geçebileceği tartışılmaktadır. Mimari mekanın kullanıcılarına duyumsal bir etkisi olması belirli deneyimlerin varlığını desteklemektedir. Felsefe bu olguları kendi dallarından biri olan fenomenoloji ile tartışır. Aynı zamanda psikoloji de bunları algısal ve bilişsel süreçler ile inceler. Kullanıcı-mimarlık ilişkisi ve bunun düşüncesel ve psikolojik karşılıkları, bir estetik deneyim olgusu olarak ele alınabilir. Dolayısıyla, mimari mekanların nicel özelliklerinin ölçülemez nitelikler kazandığı noktada, insan-mekan ilişkisi bir iletişim, tanıma ve bilme biçimi olarak estetik disiplin alanına taşınabilir. Estetik disiplininin genel olarak odak noktası, estetik özne ile estetik nesne arasındaki etkileşimin bir sonucu olarak ortaya çıkan deneyim ve beğeni yargısının incelenmesi olmuştur. Mimarlıkta, estetik "özne" kullanıcıya, estetik

"nesne" mimarlığın tanımladığı mekana ve forma karşılık geldiğini söylemek mümkündür. Kullanıcı ve mekan arasındaki estetik ilişkiyi mimarinin işlevsel yönü üzerinden inceleyebilmek için uygun olma kavramı irdelenmiştir. Bu kavram, kullanım amacına uygun olarak yapılandan potansiyel bir estetik değerin ortaya çıkışını tartışır. Bu anlayış Antik Çağ filozoflarından gelmektedir, ancak mimarlık tarihi boyunca mimarların uygulamalarında uygun olma kavramı üzerinde durduklarını görmek de mümkündür. Bu düşünceyi mimarlıkta biçim-işlev ilişkisi ve kullanıcı-işlev ilişkisi üzerinden görmek mümkündür. Dolayısıyla, işleve yönelik incelemeler estetiğin kavramları üzerinden yürütülebilir. Bu doğrultuda bu araştırma, mimarlığın sahip olduğu çeşitli işlevler arasında estetiğin potansiyel yerini felsefi soruşturma yaparak ele alır ve estetik deneyimin potansiyel işlevsel özelliklerini araştırır.

Anahtar Kelimeler: Mimarlık, Estetik, Mimari işlev, Biçim-işlev ilişkisi, Estetik deneyim, Estetik deneyimin işlevi, Sanat ve güzel felsefesi

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1. INTRODUCTION

Architecture stands in between human intelligence and the environment that they interact with. In this interaction, the existence of architecture has a functional reality as well as a participation in human life so humanity can co-exist with its environment. This participation occurs through the functional aspect of architecture, as the realization of a program. The functionality of architecture reveals itself in different levels and cross-operational among physical, symbolic, economical, psychological, moral, social, and cultural aspects of architecture (Kruft, 1994). Through these functions that can be utilized on different dimensions, users can reflect their lives and values through architecture (De Botton, 2010). Accordingly, it is possible to claim that users, who utilize those functions, relate to architecture and sustain their physicality, ideological values, and psychological states. This user-architecture relationship also indicates that users can recognize and utilize architectural functions in their respective varying dimensions and not be confined to physicality. The user-architecture relationship and its intellectual and psychological counterparts are discussed and studied with certain proficiencies. Phenomenology, as a branch of philosophy, discusses the structures of experiences and the realization of aspects through them (Merleau-Ponty & Bannan, 1956). Whereas psychological studies are over Gestalt theories as a form of study aimed at the potential description of what sorts of things the eyes perceive and what perceptual mechanisms account for the visual information (Arnheim, 1974). As well as cognitive sciences which studies cognitive processes that construct and manipulate mental representations of information that has been acquired. Perception, attention, memory, imagining, etc. can be considered as those processes (Byrne, 2005). However, there are discussions over the user-architecture relation as it can go beyond the creation of the necessary physical conditions for their actions and providing the required comfort conditions (Zumthor, 2006). Accordingly, it has been argued that architecture cannot be reduced to just an act of giving shape to physical space (Tunalı, 2013). The point where the quantitative attribute of architecture goes beyond definable and measurable, the user-architecture relationship can be investigated through the discipline of aesthetics. As a branch of philosophy, it is argued that aesthetics can be considered as a way of recognition, communication, and

knowing (Townsend, 2002). This is because the discipline of aesthetics fits into the framework of understanding what human nature is and how it relates to its environment, where the architecture also resides.

It has been argued that the focus of the aesthetic discipline is to explore the experience that occurs in the aesthetic subject who witnesses the aesthetic values of the object (Mitias, 1982). The historical background of aesthetic value qualifiers such as beautiful, good, and ugly, indicates that these aesthetic values have been sought within the object, as well as through the attitude of the subject on how they can be experienced in an aesthetic way (Tunalı, 2012). The aesthetic object and the aesthetic subject are considered as the complementary components of aesthetic experience. For the subject to gain the status of aesthetic, as the host of this experience, it is argued that it must have a certain aesthetic attitude towards the aesthetic object to realize, recognize, and comprehend its aesthetic values. Perception, attention, awareness, imagination, and contemplation can be named as the potential aspects of the aesthetic attitude (Weber, 1995). These qualities are also studied with Gestalt psychology and cognitive processes, which is the reason why psychology can aid the recognition of aesthetic values by the subject (Grabow & Spreckelmeyer, 2015). It is argued that the aesthetic object can be considered as the source of aesthetic experiences since it provides the aesthetic values to be acquired by the subject. In this process of acquisition, it has been asserted that the importance of the form, which includes the unity of its physical qualities, and how it relates to the user for an appreciation to occur is substantial to gain an aesthetic value (Listowel, 1952). The functional aspect of the object alongside the arrangement of its parts is also considered in this occurrence since the philosophers of Antiquity and can be explored under the name of the concept of appropriateness. It is possible to see that the conceptions over the functional aspect and the part-whole relation occupy a great portion of architectural theory and practice. Accordingly, it has been argued in what circumstance the functional aspect as well as the part-whole relation of architecture, whether these concepts and aspects are practiced in the physical realm or not, can possess aesthetic values and provide aesthetic experiences to its users (de Zurko, 1957a).

1.1 Research Problem

When the potential occurrence of aesthetic experience in architecture is considered, it is possible to claim that both the "object" as well as the subject of architecture requires their specific investigations. It's because the aesthetic object of architecture does not solely consist of form or what is apparent; it is argued that functional as well as invisible but sensible "objects" such as atmospheres within its spaces also become influential (Böhme, 2017). Furthermore, the content of the users' cognitive processes for the recognition of aesthetic values now corresponds to a wider range such as imagining the space, and it is substantial in understanding and responding to the "object" of architecture (Scruton, 1979). Evaluating the aesthetic values of works of architecture only through their appearances would neglect their functional qualities. Accordingly, discussions of appropriate form-function relations can also be seen throughout the history of architectural theory and practice (de Zurko, 1957a). It has been argued whether or not the functional aspect is the determinative factor in the aesthetic appreciation of a work of architecture through the appropriate form-function relation.

It has been claimed that the discussion of functional aspects of architecture and aesthetic values can influence each other has not yet been explored extensively in architecture (Sauchelli, 2012). Accordingly, this thesis considers the user-architecture relationship as an aesthetic problem. The cause of this problem is the relationship between aesthetics and the functional aspect of architecture. It is possible to consider a spectrum of functions that architecture can have. Similarly, the spectrum of varying ways of utilizing them should also be considered. Just as how architecture does not only function in practicality, users also do not solely utilize and benefit from it physically. It is mentioned that aesthetic experience is argued to be a way of recognition and communication since the subject receives the aesthetic values of the object, comprehends them, and undergoes an experience. Through this understanding, this thesis raises an argument over the potential way of utilizing architecture through aesthetic experience.

1.2 Purpose, Method, and the Structure of the Thesis

The main inquiry of this thesis is to investigate the potential functional characteristic of aesthetic experience. To be able to present such an investigation, this study initially investigates the potential emergence of aesthetic experience in architecture in relation with the aspect of functionality. It has been argued that aesthetics is a matter of philosophy to discuss rather than a scientific or an empiric study (Bosanquet, 1923). The same argument also applies when the aesthetics of architecture is investigated. Because conducting surveys or psychological investigations to pinpoint in what circumstances subjects undergo certain phenomena can lead to a particular perspective on the problem, yet it would be descriptive rather than analytical. Also, examining how the nervous system transmits sensuous data to the brain is indeed a step forward to get a grasp of how spatial perception occurs (Groh, 2016). Yet, it has also been argued that there are non-measurable attributes of an architectural space that do not solely reside in the sensuous realm and only becomes a reality through the recognition of the subject (Weber, 1995; Zumthor, 2006). Accordingly, the main inquiry is aimed to be achieved through the method of philosophical investigation. Philosophical investigations consist of analysis and clarification of concepts, theories, arguments, and language (Noddings, 1995). To be able to achieve such analysis and potential clarification, philosophical texts introduce a problem, present the existing arguments and theories that are related to the problem and then provide an argumentation over it. This is unlike the method of dialog, also known as the Socratic Method, where the problem is discussed through a conversation between certain people (Portelli, 1990). In this study, the user-architecture relationship is considered as an aesthetic problem; the potential occurrence of aesthetic experience in relation with the functional aspect of architecture, and as a potential way of utilizing it. Accordingly, the existing theories that are focused on the concepts of aesthetic value qualifiers, aesthetic experience, as well as the theories over the functional aspect of architecture, draw the frame of reference. These investigation data are acquired, presented, and argued over through the method of comparative literature review. Through comparative literature, the similarities and the differences between the raw investigation data are explored and then an argumentation is articulated over them (Walk, 1998). The data of this investigation are in the form of theoretical texts and interviews, rather than the results of any scientific experiments or surveys. They are extracted from sources that present

a broad historical analysis of aesthetics as well as architectural theory. This enables the main inquiry to not be confined to any specific period, movement, or an individual with a specific mindset but to be studied on an extensive historical basis. It is possible to consider the argument of this thesis as a theoretical debate and a theoretical debate divorced from its historical background is claimed to be of scant value (Kruft, 1994, p. 18). Furthermore, throughout the investigation of the data, both the concepts themselves and the theories over them are simultaneously subjected to questioning and, as a result, the argumentation of the main inquiry can be observed throughout the thesis, rather than being confined to a separate chapter.

It has been argued that, in a literature review, repeating the exploration of the same data, mainly the historical data, is unnecessary and what should carry priority must be the exploration of the unknown (Nemesio, 1999). However, to be able to realize what is unknown, the known must be recognized in the first place to define what isn't. It has been indicated that the discussion of functional aspects of architecture and aesthetic experience can influence each other has not yet been explored extensively in architecture (Sauchelli, 2012). This should not be understood as if the existence of such influence is not known or not argued about. From sensuous impacts recognized through cognitive analysis or expression of the subject to disciplines other than aesthetics examining such phenomena supports its existence. Yet, the discussion itself that explores this influence through historical background and focuses on how the aesthetics and the aspect of functionality related to the subject is claimed to be not present in an extensive and academic way. The subject is the one who both experiences and utilizes, in each respective field. Accordingly, this thesis presents itself as a way of investigating how the subject potentially utilizes a work of architecture through aesthetic experience. It is of significance to emphasize that the aim behind this investigation is not to acquire a complete answer to the problem but to present a way on how it can be questioned.

To be able to investigate the potential functional characteristics of aesthetic experience in architecture, the analysis of aesthetic experience itself carries prior importance. Only after its analysis, it may become possible to explore its potential characteristics. However, the concept of aesthetic-ness does not possess a static definition and understanding. Accordingly, in the second chapter, the analysis of aesthetic value

qualifiers and how they got stressed throughout history got explored before the analysis of aesthetic experience. It is claimed that philosophy itself emerged in the aspiration of understanding art and beauty and they were understood in terms of metaphysics (Hofstadter & Kuhns, 2009, pp. 1-2). Accordingly, Hofstadter & Kuhns (2009) provides a selection of philosophers that begins with Plato and concludes with Heidegger who argued over aesthetics as a branch of philosophy rather than criticism of art. However, who initially explored aesthetics as a philosophical interest prior to Plato as well as who stressed aesthetics as a philosophical interest following Heidegger is a topic of discussion. Accordingly, philosophers who explored aesthetics but are not presented by Hofstadter & Kuhns (2009) got explored through Tunalı (2011), Tatarkiewicz (1970a, 1970b, 1974), Bozkurt (2014), and Masiero (2006). Utilizing them as a source of historical investigation of aesthetics shaped the overall structure of the framework of reference in this thesis.

This spectrum of theories from substantial figures in history indicated how the aim of aesthetics swayed from seeking a way to define and achieve beauty to investigating how a subject experience it. This enabled the main inquiry of the thesis to not be confined to seeking what is beauty in architecture but to seek how the subject of architecture, the user, can potentially have an aesthetic experience in architecture. The analysis of aesthetic experience, both with its complementary components as well as their correspondence in architecture, is investigated through sources that stress on what makes an object aesthetic as well as what kind of attitude a subject should have to realize the aesthetic-ness of the object. The time period of these reviewed sources reaches from the 2nd half of the 20th century to the present day and links the historical background analysis to the contemporary discussions. Investigating the correspondence of complementary components of aesthetic experience in architecture indicated that aesthetic appreciation of the aspect of functionality can enable a frame of discussion where the main inquiry can be explored through.

In the third chapter, initially, the theories that stress the emergence of aesthetic values by being appropriate for the intended use as well as by having an appropriate union among the parts are explored. The foundation of the former theory is established by Socrates and the latter is with Aristotle. They were no architects, but philosophers who argued about the concept of appropriateness through aspects of functionality and union

of parts which are substantial concepts in architecture. Accordingly, this chapter of the study is neither confined to architects nor begins with Vitruvius. After all, this study does not try to merge two separate disciplines but investigates their already-coexistence. It is claimed that, through these theories, it is possible to explore the potential aesthetic qualities of appropriate part-whole and whole-function relations in architecture, overall, the form-function relation. This enabled the study to explore the occurrence of aesthetic experience in architecture in relation with its functional aspect rather than being confined to what is apparent. Accordingly, the history of architectural theory is investigated to analyse the attempts of functional fitness in form-function relation and how it relates to the user as a case of potential aesthetic appreciation is explored. These attempts varied from the implementation or removal of ornamentation to practical, economic, cultural, and symbolic qualities that can either be what appropriateness is aimed at or what appropriateness can be achieved with. In this investigation process, de Zurko (1957), Kruft (1994), and Mallgrave (2005, 2006, 2008) were the main sources that this study benefitted greatly. Their quality comes from their extensive analysis of the architectural theory that reaches from Antiquity to the present day. Accordingly, the discussion of how the functional aspect of architecture can influence the aesthetic experience is followed by the argumentation of how the aesthetic experience can influence the functionality of architecture as a way of utilization. In the conclusion section, overall analyses, and the final form of investigation over the aesthetic experiences' relation with the functional aspect of architecture and its contribution to the functions of architecture is presented.

2. THE DISCIPLINE OF AESTHETICS AND AESTHETIC EXPERIENCE

In order to investigate the potential influence of aesthetic experience and the functional aspect of architecture on each other, the discipline of aesthetics is initially explored in this chapter. Accordingly, the etymology of the term "aesthetics" and how it got introduced to the academic field is analyzed. Following this, the origin and why this discipline exists as a branch of philosophy are indicated. It is presented that the discipline of aesthetics deals with aesthetic values such as beautiful and good. This revealed what to investigate initially to understand the nature of the aesthetic discipline. This section clarifies the nature of these aesthetic value qualifiers when they are used in the context of aesthetic appreciation and judgment.

Upon examining the etymological background of the term "aesthetics," it can be seen that it originates from the Greek word *aisthesis* which means "sensation" and "sensible perception" (Tunalı, 2012, p. 13). However, the exact term that's been used today, in both academics and everyday life, is sourced from the German philosopher Alexander Gottlieb Baumgarten (1714-1762). He initially used the term in his doctorate thesis and kept on referring to it as a discipline in his two-volume piece which is called "Aesthetica" (Cömert, 2008, p. 23). He explains the discipline of aesthetics as "*aesthetics est scientia cognitionis sensitivae*" which stands for "aesthetics is the science of the sensory knowledge" (Tunalı, 2012, p. 14). Initially in the history of aesthetics discipline, the Antiquity period made a great effort to understand and reproduce this sensory knowledge within their works by focusing on the critical thinking of beauty (*kalon*) and art. The word *kalon*, which translates to beauty in Greek, had more broad meaning than the context it is being used today. It refers to everything that pleases, attracts, and arouses (Tatarkiewicz, 1970a, p. 25). However, Tatarkiewicz (1970a) claims that some aestheticians have shifted to an analysis of arts, defining aesthetics as the study of art, believing that the concept of beauty is indefinite and imprecise and so unsuitable for inquiry (p. 1). Each of these two concepts, art, and beauty, has a distinct spectrum of applications and considerations. Beauty is not confined to art and art is not solely the pursuit of beauty.

There are claims from philosophers to define the aim of the discipline of aesthetics by considering the phenomenon of beauty and the judgment towards it. French aesthete Etienne Souriau defines it as the "study over the judgment of good taste" (Doğan, 1975, p. 14). This definition has been considered as a forward and developed one because it signifies a basic problem of aesthetics; judgment of taste. Following this, "The Dictionary of Critical and Technical Philosophy," describes aesthetics as "the branch of science that deals with the evaluation of judgments applied to make a distinction between beauty and the ugly" (Doğan, 1975, p. 14). This further expands the description of the discipline of aesthetics since both the beautiful and the ugly should also be distinguished and clarified. The same source also refers to "logic" as "the branch of science that deals with the evaluation of judgments applied to make a distinction between right and wrong" (Doğan, 1975, p. 14). Accordingly, in aesthetics, unlike the science of logic, there is no question of correctness, falseness, or inaccuracies in aesthetic judgments (Tunalı, 2012, p. 248). However, there was a certain school of thought including Immanuel Kant who did focus on its validity and correctness and his purpose was to create a universal understanding and acceptance of what aesthetical judgment is (Zangwill, 2003).

The object which attained the status of beautiful by its attributes is comprehended with the perceptual and cognitive processes. This creates a certain sense of pleasure in the subject forming the basis of aesthetic appreciation. This object can be referred to as the aesthetic object and the witness as the aesthetic subject generating an aesthetic experience. This sense of enjoyment and appreciation of the object can be expressed by commonly used adjectives such as "good", "beautiful", and "excellent", however, Güçlü (2003, as cited in Kırhallı & Koçyiğit, 2019) claims that value qualifiers such as "good", "correct", and "excellent" becomes aesthetical value qualifiers on making aesthetical judgments and they no longer describe moral goodness, an epistemological or ontological truth, or metaphysical excellence (p. 198).

Furthermore, Goldman (1990) claims that even though the question of why certain physical qualities are found to be so pleasant is for psychologists to answer but it is more of a philosophical interest to explain how aesthetic relations create aesthetic value (p. 32). Similarly, Schoen (1941) says that the concept of aesthetic experience fits into the framework of understanding what human nature is and how it relates to its

environment, and "to show that this view embraces every characterization of aesthetic experience to be found in the outstanding aesthetic theories of philosophy" (pp. 23-4). It is also possible to see studies of psychology when investigating aesthetics. After all, how can an eye perceives, and a mind can comprehend the qualities of the environment has its studies and explanations in psychology (Groh, 2016). However, as Santayana (1904) argues, just as how aesthetics doesn't exist as a sole part of philosophy, it also does not fit into the discipline of psychology completely, and therefore questioning which discipline should accommodate the concept of aesthetics is an insoluble question (p. 324). Psychology will keep on studying the aesthetic experience, but at the same time, aesthetics will also keep on dodging to be reduced to the psychological field.

It is put forward that there is no universally valid definition of beautiful or ugly; an overall conception of beauty cannot be considered for all societies and at all times (Tanalı, 2000, p. 38). This spectrum of the conception of beauty can be most predominantly seen throughout Antiquity, Medieval and Modern period (Tatarkiewicz, 1970b, 1970a, 1974). These understandings of the concept of beauty varied from being sought in objective properties, moral thoughts, and customs to being defined in an "aesthetic sense" as what evokes an aesthetic experience (Tatarkiewicz, 1972, pp. 165-6). Accordingly, to be able to investigate aesthetic experience and its potential existence in architecture, the varying conceptions of aesthetic values in history must be explored to see how they are conceptualized and reside within the context of aesthetic experience. This will enable to explore their presence in architecture.

2.1 Historical Background of Philosophy of Art and Beauty and Discipline of Aesthetics

This historical analysis is conducted over the philosophers from Antiquity to the contemporary period in chronological order, beginning with Hesiod and Homer, followed by Pythagoras, and reaches to Croce and Heidegger. Each one of the philosophers presented a unique understanding of aesthetic values and how they attempted to achieve them. Considering history as a whole, it is possible to see that initially with Antiquity, aesthetic values were explored as they were solely embedded within objective properties which include both physical properties as well as moral

values. Yet, from the 18th century and onwards, the perception and judgment as the attitude of the subject became predominant but the objective qualities were not neglected (Tatarkiewicz, 1963). These two elements, object, and subject, guided the further investigation of aesthetic experience. Discussions over these elements are explored through philosophers that follow the period of Heidegger and reaches to the contemporary period.

It's been mentioned that the term "aesthetics" was initially seen with Alexander Baumgarten in the 18th century, however, the problems that this discipline attempts to tackle were also present before the 18th century. Even though this philosophy is considered to be originated from Ancient Greek, it should not be thought as it was specific to that region. As Tatarkiewicz (1970a) claims that Non-European, eastern, aesthetics did exist over the perfection of art and proportions but it is not being included in the present written history (p. 8). Tunalı (2011) considers the idea of beauty to be the ultimate concept in Greek philosophy, and as a result, it emerged as a "philosophy of beauty and art". This shows that aesthetics as a philosophical subject was first established in Antiquity (pp. 18-9). Also, while the philosophy of art and beauty is as old as philosophy itself, it has not always been a primary philosophical concern. It rises to the foreground of philosophical debate, then fades away, only to resurface as the central issue (Hofstadter & Kuhns, 2009, p. xiii). This fluctuation in philosophy is also indicated by Tatarkiewicz (1970b);

> Although the writers of the Middle Ages did not leave behind any treatises on aesthetics, we find certain principles and deductions of aesthetic interest in theological, psychological, and cosmological treatises, which reflect a conception of beauty and art. (p. 3)

Initially in Classical Antiquity (8thc. BC), also known as the Classical Era or Classical Age, the concept of beauty was discussed and the comprehensive method of art gained a mythological-poetic quality (Özden, 2002, p. 71). Homer (late 8thc. BC) and Hesiod (750-650 BC), who wrote about the function and worth of poetry as an art form, were the first to articulate it verbally and only to be taken up by scholars later, primarily those of the Pythagorean school (Tatarkiewicz, 1970a, p. 9). In Greek mythology, each god and goddess represent different concepts and notions such as war, sun, light, wisdom, marriage, etc. Beauty is one of them alongside love and fertility which was represented by the goddess Aphrodite (The Editors of Encyclopaedia, 2020).

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Accordingly, Hesiod interpreted the source of beauty with the goddess Aphrodite and claimed that "women as the source of beauty," whereas Homer interpreted beauty and claimed "nature as the source of beauty" (Bozkurt, 2014, p. 103). Their understanding and interpretation of the source of beauty are important because it was one of the earliest attempts to seek and understand beauty as it is as well as it has a mythological and poetic approach. Also, Hesiod claimed that with Eros, order (*taxis*) and beauty (*kalon*) replaced the chaos within the universe (*kosmos*) (Aristoteles, 1982, 984b). An idea of beauty deriving from the order within universe may be introduced with the Hesiod but what is certain is that it shaped the way how the following philosophers considered beauty.

Pythagoras (570-495 BC) is argued to be the initial figure in the history of aesthetics to discuss and consider the concept of beauty in a philosophical manner (Özden, 2002, p. 72). However, Tunalı (2011) interprets history differently and suggests that the philosophical thinking of beauty can be initially seen in Xenophon (430-350 BC) (p. 23). According to Pythagoras, beauty emerges from order and harmony within the universe, asserting mathematical thought as the key to understanding different aspects of reality within the universe (Cevizci, 2012, p. 43). His ideas suggested that arithmetic values lay beneath the harmony of the universe. Therefore, what rules the universe and provides harmony are the numbers and proportions. Harmony, being the most basic concept of Pythagorean thought, was mainly explained in terms of numerical relations in connection with musical theory (Cevizci, 2012, p. 45). This approach claimed that to comprehend the universe (*kosmos*), numerical proportions and their relations should be known. This understanding had a term on its own; *kanon*. Masiero (2006) claimed that classical Greek thought desired a phenomenal perfection that can be sought in what is proportional in itself. Thus, whatever corresponds to *kanon* also refers to perfection itself (p. 34). This lead to a situation of which beauty was understood as an objective feature to contain certain proportions and arrangements, not because they happen to appeal to the one who perceives the object. As Tatarkiewicz (1980) puts it; "the proportions of the parts determined whether something was beautiful or not, it could not be beautiful in one respect and not another" (p. 132).

As a follower of Pythagorean thought, Heraclitus (535-474 BC) also claimed that beauty emerges in the harmonical combination of elements and components.

Heraclitus (as cited in Tunalı, 2012) claimed that art can achieve this harmony by imitating nature; paintings mix colors and music combines different tones and establishes harmony between notes (p. 56). As seen from Heraclitus's statements, harmony in art can be achieved through harmony in the universe and the exchange between elements can only be comprehended by an intellect rather than being perceived by the eye. Heraclitus further suggests this by saying; "harmony which cannot be seen is more powerful than the one which can be seen" (Kranz, as cited in Özden, 2002, p. 76). This idea supports a concept of beauty that emerges from the relation of parts rather than just the arithmetic proportions of the object. Since mathematics can be understood visually, he suggests that the harmony within parts and the relation between them can also be understood intellectually.

Alongside focusing on objective features and seeking beauty within cosmological order, definitive approaches that seek answers in non-objective fields also did exist. Socrates (469-399 BC), who did not produce any work by himself, carries great importance in the history of the philosophy of beauty. Studying him over the dialogs that featured in Xenophon's (430-355 BC) "Memorabilia" would reveal his unique understanding of beauty as a new approach towards a whole different comprehension of what beautiful is. One of the dialog that Xenophon (2008) features is where Socrates claims that beauty and good emerge only if the object is appropriately made to its intended use (book III, ch. VIII). This is a unique kind of perception of the concept of beauty since it suggests that each thing has its beauty in accordance with its purpose of existence. Furthermore, since the object itself is fit for its purpose through its properties and it is being utilized by a subject accordingly indicates that Socrates considered both an objective as well as a subjective understanding of the theory of beauty. As Tatarkiewicz (1963) puts it;

> He (Socrates) distinguished two kinds of beautiful things: things beautiful by themselves and those which are so only for the persons who make use of them. This was the first compromise solution; beauty is in part objective and in part subjective; there exists both objective and subjective beauty. (p. 158)

Plato (428-348 BC), as the successor of Socrates, marks the peak of Greek Aesthetics with his approaches to the matter of aesthetics. However, his approaches toward the understanding of certain concepts changed throughout his lifetime, and this fluctuation

in his ideas affected his approach to the concept of beauty accordingly. Thus, Plato's philosophy, can and should be examined in three separate phases; the Socratic era (youth), the ontological era (mature), Pythagorean era (elderly) (Tunalı, 2011, pp. 25-6). The dialogs written in the Socratic era are focused on the concept of the Idea, but he did not have an ontological approach, yet (Tunalı, 2011, p. 26). It was still examined through logic just like how he approached the concepts of virtue and bravery (Bozkurt, 2014, p. 104). In his ontological era, it's seen that the Idea detached from logic and is now being examined as an ontological entity (Tunalı, 2011, p. 26). The concepts of art and beauty were drawn into an idealist philosophical system (Tatarkiewicz, 1970a, p. 113). Accordingly, it is possible to see claims that consider beauty as an idea; "beautiful is considered as beautiful by the beautiful". Following this, in his elderly era, he let go of the theory of Ideas after expanding on the Pythagorean theory (Tunalı, 2011, p. 26). It is about recognizing the concept of beauty as a property that was based on the arrangement (disposition, harmony) between parts and as a numerical property that could be expressed in numbers (measurer, proportions) (Tatarkiewicz, 1970a, p. 116). Although Plato adapted to the Pythagorean idea of measure and proportion in his late philosophy, it established a permanent stay.

Just like how Plato initially was influenced by his mentor Socrates, Aristotle (384-322 BC) was also influenced by his mentor Plato. He also defined beauty accordingly to order and harmony by claiming that "the highest forms of beauty are order, symmetry, and clarity. These forms are the causes of many works, so it is clear that mathematicians must treat the beautiful thing as a specific style factor" (Aristoteles, 1982, 1078b). These claims suggest that beauty is a mathematical phenomenon. Following this, Aristotle did not consider a transcendent Idea that exists externally among the sensible objects and since beauty emerges from the perception and comprehension of the proportion, symmetry, certainty, and order found in an object, it is not found naturally (Özden, 2002, p. 88). Beauty can also be obtained by looking at objects in nature since beauty is created by imitation (*mimesis*) of the natural (Aristotle, 1902, 1447a). Also, as Tatarkiewicz (1970a) puts it, the overall aesthetics of Aristotle is the "imitation as the function of art, the purging of emotions as its effect, and the idea of suitable proportion as the source of beauty" (p. 154).

As it is discussed above, the traditional concept of beauty in Greece was defined through relation, measure, proportion, and the overall arrangement of parts. However, Plotinus (AD 205-270) rejected this definitive approach toward beauty. According to Plotinus, if beauty relied on relation, proportion, etc., "it would only exist in complex objects" whereas it would not be present in a specific "color or sound," but yet, "they are among the many beautiful things" (Tatarkiewicz, 1970a, p. 319). Some objects are simple, yet have no parts. Through this ideology, Plotinus argued that "beauty cannot be a question of relationship; it must therefore be a quality" (Tatarkiewicz, 1970a, p. 319). He also possessed a spiritual understanding of aesthetics and considered the spiritualistic forces that existed within nature more than there is in a human being. As Tatarkiewicz (1970a) puts it; "beauty in nature has the same source as it has in art: nature is beautiful because an idea shines through it and likewise art is beautiful because the artist endows it with the idea" (p. 320). As a result of where his lifetime resides in the history of philosophy of art and beauty, he bridged two eras: Antiquity and Middle Ages.

Following Plotinus, Saint Augustine (354-430) marks a foundational radical shift in the understanding and evolution of art. His earliest writings were on aesthetics which later on became more over theology and metaphysics, however, he did not lose his interest in aesthetics since he did not consider it as a separate branch of knowledge (Tatarkiewicz, 1970b, p. 48). As Hofstadter & Kuhns (2009) articulate that his treatises are notable for their constant efforts to meet the demands of the faith of Christianity while still appreciating the natural enjoyment of art; nature and art represent divine order and harmony. Accordingly, perceptual items bind the senses to earthly things and inhibit the mind from contemplating what is eternal and constant (p. 171). His understanding of beauty indicates an objective property rather than an attitude of the subject that judges the object. Tatarkiewicz (1970b) quotes a question where Augustine asks "Is a thing beautiful because it pleases or does it please because it is beautiful?" and approves the latter (p. 49). This is an understanding that points toward beauty as an objective quality.

Following the heavy influence of religion in the Medieval period and a decline in the production of intellectual work, the Renaissance and the Age of Enlightenment brought new definitive approaches toward the concepts that they discussed. A

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substantial figure in this period is Leon Batista Alberti (1404-1472). Alberti favors the Platonic concept of Ideas that exist in a higher reality relative to the phenomenal and physical world, therefore, beauty is a reflection and an image of transcendent Ideas (Mallgrave, 2006, p. 32). He also supports the idea that beauty depends on proportions, harmonies, and positioning of the elements both in nature and the works of humanity. This harmony is not only a formal harmony but also an adaptation of the parts to the content, environment, and needs (Masiero, 2006, p. 83). With the words of Alberti (1986); "I shall define Beauty to be a Harmony of all the Parts, in whatsoever Subject it can appears, fitted together with such Proportion this and Connection, that nothing could be added, diminished or altered, but for the Worse" (p. 113). It is an approach that considers the appropriate arrangement of parts.

In the 15th century, Marsilio Ficino (1433-1499) was as substantial a figure as Alberti, yet the differences between them were great. Ficino argues that beauty does not solely consist of proportion as the arrangement of parts because, similar to Plotinus, he also considered the beauty of sounds, the soul, and the virtues (Hendrix, 2012, p. 5). This is an indication of beauty not being confined to the properties of a corporeal body since that would prevent virtue from also being beautiful. As Ficino (1561, as cited in Tatarkiewicz, 1974) claims;

> The appearance of a person may be pleasing to the mind, but it is not the appearance of the external matter, which is pleasing, but rather the image which the sight apprehends, or the mind conceives. This image is in the sight, in the soul, and since these are noncorporeal, it cannot be a body. (p. 108)

This claim suggests that beauty can be found in non-corporeal things which are only perceived by the mind of the observer. This indicates that this beauty appears in bodies when an idea becomes embedded in them and takes the topic to a metaphysical state; bodies can be beautiful with an addition of the idea, but never the beauty itself (Tatarkiewicz, 1974, pp. 102, 105-6). Through this approach, Ficino exemplifies the work of an architect; "first he has the idea of a home in his mind, then he builds it as he has imagined it. The house is material, but it originated thanks to a non-material idea" (Tatarkiewicz, 1974, p. 102). Ficino is a great example who explored the non-physical realm when seeking beauty through how it can be comprehended by the mind.

With Anthony Ashley Cooper, 3rd Earl of Shaftesbury, also known as Lord Shaftesbury (1671-1713), it is possible to see a unique concept of developing aesthetics and distinguishing aesthetic experience from the rest which is the concept of disinterestedness (Stolnitz, 1961, p. 100). Shaftesbury separates the aesthetic attitudes of appreciation of the beauty of an object and the appreciation of the benefits that can be gained from that object (Gill, 2021, ch. 4.2 par. 4). Hofstadter & Kuhns (2009) articulates this as "the man's sense of place in the universe is due to a judgment about the beautiful. And this judgment follows upon an immediate comprehension that must be distinguished from the moral, the pleasurable, and the useful" (pp. 240-1). Following this, Shaftesbury equates the beauty of an object with formal qualities which he variously refers them as "harmony", "order", "symmetry", "design", "proportion" or "numbers" (Glauser & Savile, 2002, pp. 26-7). Therefore, it has been signified that anything that has multiple parts can generate any of these qualities with their unity and can be beautiful (Gill, 2021, ch. 4.2 par. 2).

In the 18th century, the presence of Alexander Gottlieb Baumgarten is notable. His significance comes from the consideration of aesthetic discipline as a way of knowledge (Tunalı, 2012, p. 13). According to him, aesthetic knowledge is inferior to mental knowledge but also independent from higher, intellectual knowledge, and with this understanding, aesthetic knowledge can be considered in an "integrative and expansive way" (Masiero, 2006, p. 117). Thus, it has been possible to know the art more than ever. As can be seen from him and in comparison, with previous figures in history, he did not attempt to give definitions of what beauty is or how to achieve it. His importance in history originates from his shaping a discipline to focus on recognizing and studying sensory knowledge, rather than discussing definitions of beauty that reside in objectified qualities. The focus is directed toward the subject.

Sharing the same period with Baumgarten, Immanuel Kant (1724-1804) can be considered the intellectual who put out the richest development in philosophical aesthetics. Varying greatly with his conceptions and approaches from what came before him while also paving the way for a modern era of aesthetics to be born. As Ferry (1993) puts it; "aesthetics is the field par excellence in which the problems brought about by the subjectivization of the world characteristic of modern times" (p. 3). No longer beauty is considered emerging from formulas and principles but through

the judgment that one possesses. Tatarkiewicz (1980) articulates that, with Kant, beauty is "that which pleases, neither through impression nor concepts, but with subjective necessity in an immediate, universal and disinterested way" (p. 123). According to Kant, the taste is the ability of aesthetic judgment which is, unlike several ancient philosophers' understandings, subjective. "Hence a judgment of taste is not a cognitive judgment and so is not a logical judgment but an aesthetic one" says (Kant (1987) and follows; "by which we mean a judgment whose determining basis cannot be other than subjective" (p. 44). The judgment of taste refers to subjectivity because it is the notion of like or dislike that determines aesthetic appreciation. Furthermore, he distinguishes beauty from being good and useful by considering it as a standalone concept. According to Kant (1987), usefulness or utility always indicates an interest, a desire for the existence of an object. Yet, aesthetic appreciation is a pleasure in the presence of an object that we call beautiful, without expecting anything in return for its existence (pp. 48-51). This distinction is required, accordingly to him, to be able to determine the features of aesthetics since only then, the most substantial concept of aesthetics, beauty, can become a standalone concept (Tunalı, 1983, p. 81).

As influential as Kant, Georg Wilhelm Hegel (1770-1831) represents the apex of Idealist aesthetics. Hegel's understanding of beauty emerges from his overall philosophy. As presented by Tunalı (2012), the origin of Hegel's philosophy is the spirit (*Geist*) that is devoid of reality, and to reach consciousness and gain reality, it seeks presence in externality. Art and beauty are the concepts of aesthetics, which is absolute spirit (pp. 150-1). Hegel's understanding states that the subject of aesthetics mainly focused on the beauty of art and the fine arts, so that refers to it as the "philosophy of fine arts" (Masiero, 2006, p. 133). According to him, art aims at the beautiful, which is one of the ways of expressing the Truth (Bozkurt, 2014, p. 161). In light of all this, it is safe to say that beauty, for Hegel, is the illustration of an Idea within sensory fields and exists in reality with art forms. Furthermore, Hegel restricts the term 'art' to those "things brought about by human activity, to be made for man, to be addressed to his senses" (Brown, 1971, p. 345).

The contribution of psychological topics to philosophical discussions can also be seen in the history of aesthetics with figures such as René Descartes (1596-1650). However, Robert Vischer (1847-1933) is the one who applied psychological theories to art. Even

though his aesthetician father Friedrich Theodor Vischer (1807-1887) discussed the topic of certain objects' capacity "to express the whole outer and inner life of notions," Robert Vischer introduced this psychology-based approach to visual arts and he achieved this via a new term; *Einfühlung* (empathy) (Mallgrave, 2008, p. 67). According to this term, "what constitutes the beauty of an object must always belong inseparably to that object" (Masiero, 2006, p. 155). The theorists who sided with the understanding of the concept of empathy looked into the problem of the exclusion of architecture from the arts due to its relationship with the utility. According to them, architecture is an integral part of the human-world relationship and it cannot be excluded from aesthetic perception (Masiero, 2006, p. 157). Following this approach, foundations of art-architecture discussions were created and, according to Vischer, the architect aims to "convey the work to beauty by expressing the harmonic relation between thought and material" (Masiero, 2006, p. 153).

Moving onto the 20th century, Benedetto Croce's (1866-1952) efforts indicate that the attempts of defining art are a lost cause since, by its nature, it rejects being defined and cannot be subjected to a certain mold of definition for an extended period (Cömert, 2007, p. 14). Similarly, as Masiero (2006) articulates it, art is an image, the result of an *a priori* synthesis of emotionally charged content and intuitive form (p. 173). What is presented here is an approach to the understanding of how beauty and art should be comprehended. As Cömert (2007) further emphasizes the approach of Croce; "beauty is not a physical entity that belongs to things in this dimension, but something which relies on humane activities and spiritual abilities" Cömert (2007, p. 37). These discussions should not be perceived as if he tries to define art and beauty to a certain framework of spiritual pleasing-ness because "even if we define art as a special pleasure, the distinguishing feature of art will not be what is pleasing, but what distinguishes that pleasing one from other pleasing ones" (Cömert (2007, p. 55).

In history, it can be seen that art and beauty are intertwined; art pieces got referred to as beautiful or fine from time to time and suggesting that art produced beauty as its definitive concept. However, Martin Heidegger (1889-1976) studied the concept of Truth and discussed the beauty within the concept of Truth as its definitive concept, similar to Hegel. His words are as follows; "art is one among a number of ways in which Truth establishes itself in this realm" (Hofstadter & Kuhns, 2009, p. 647). As

Bozkurt (2014) presents his theory of art; "if truth enters a work of art, then it appears as beauty. What appears is beauty as this presence of truth in the work" (p. 288). Heidegger devotes art to a very substantial role in human experience. As a vehicle for Truth, art is also the root of the history of people as an origin of man's historical existence. As Hofstadter & Kuhns (2009) presents Heidegger's understanding; "art has the fundamental historical function of revealing to man the being which is entrusted to him in the fulfillment of his human destiny as individual and as a people" (p. 648).

Following the framework of the historical background of aesthetic discipline, it is possible to indicate that the comprehension of the discipline and the concepts within were in constant change. The struggle over bringing a possible definition resulted in a variety of different approaches to the concepts that the aesthetic discipline deals with. Initially, with the Antiquity period, it is possible to claim that objective theories dominated the discussions. Mathematics and arithmetic proportions used to be considered beautiful only through their objective characteristics since they are claimed to be in harmony with the universe's order. Since beauty belonged to the object itself as a property, relativism was disregarded since that would suggest something could be beautiful for one but not for another (Tatarkiewicz, 1972, p. 170). It was also possible to see the metaphysical approaches suggested that the earth is considered as a reflection of the dimension of Ideas. Beautiful only resembled the beauty in the physical realm rather than being one by itself. Later, the influence of religion can be observed. Beauty and aesthetic values were considered as they belong to what was Holy; thus, practicing beauty was a path to the Holy. Lastly, with the modern mindset of the 18th century and beyond, aesthetic value got considered as a "psychologic object" (Tunalı, 2012, p. 156). These varying perspectives also generated constantly evolving approaches toward the relation of objectified values and their perception of the subject. The potential reason for this result of variation is best put by Ferry (1993);

> The disappearance of the orders and guilds of the ancient regime, the disenchantment or de-magicalization of the world, the end of the politico-theological, the transition from the organic community (Gemeinschaft) to the contractual society (Gesellschaft), from the closed world to the infinite universe, the obsolescence of the great cosmologies and of hierarchical, objectivist visions of law and politics, the oblivion of Being and the advent of technicity, and so forth. (p. 3)

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The concepts of art and beauty as what the discipline of aesthetics deals with never acquired a long-lasting definition. They were always in constant change, expansion, and evolvement; thus, it becomes even harder to fully describe them. Just as Bosanquet (1904) considers that the concept of beauty is an open concept which means that the limits of its application can evolve and change throughout time (p. 5). Yet, these discussions and analyses over the concepts of aesthetics are substantial, not only for the foundational purposes to build further discussions but for its recognition as a discipline that evolved throughout its history. Even though it initially began with the aim of pinpointing certain definitions of what the specific aesthetic values are on objects, it altered into a discipline that tries to understand that value with theories that consider subjectivity more than ever.

Over the historical background of aesthetics, there are claims that the pursuit of a definition of aesthetics is nowhere near reaching accomplishment since Plato's time, even though each art movement or philosophical approach tries over and over again to bring a new understanding (Weitz, 1956, p. 27). Besides, Weitz (1956) asserts that existing statements about aesthetics believe that their definition is accurate because, supposedly, they have been appropriately articulated into a real description of the essence of art, but that is not the case at all (p. 27). According to him, the issue is that the "aesthetic theory tries to define what cannot be defined" and "the main task of aesthetics is not to seek a definition but to clarify and elucidate the concept of art" (Weitz, 1956, pp. 28-33). As presented with the historical background of aesthetics, Antiquity, and the 18th century modern era, for example, discussed the concept of art through different definitions (Grethlein, 2015, p. 322). That is an attribute of aesthetic theory, trying to get a grasp of the related concepts and generating an overall understanding of how one should approach and understand them in their respective settings. After all, "the aesthetic discipline teaches us what to look for and how to look at it" (Weitz, 1956, p. 35). Just as also stressed by Etienne Souriau (1970, as cited in Doğan, 1975) aesthetics is the contemplation of humans about their artistic activity (pp. 9-10). Similar to how Hegel referred to art, as quoted above, as those which were brought to existence by humans and for humans.

Accordingly, since "the role of aesthetic theory is not to conceive it as definition, logically doomed to failure," this thesis neither considers the term "aesthetic" as an

adjective to refer to what is beautiful nor as a discipline with a sole purpose of defining what beauty is (Weitz, 1956, p. 35). But considers it as a discipline that is after the desire to understand human activity; about people themselves and their relations with the environment they inhabit. It is a discipline that emerged to attempt to bring potential explanations and recognition to sensuous knowledge (Townsend, 2002, p. 12).

Investigation of the historical background of the aesthetics discipline presented that the way how philosophers dealt with aesthetic concepts and how they defined them varied. As Tatarkiewicz (1963) puts it; "in ancient times and medieval aesthetics the objective theory was predominant and the subjective theory in modern times" (p. 157). Answers to questions such as "what is beauty?" or "what is beautiful," were sought within the objectified values but now the questions evolved into "how do we experience it?" (Tatarkiewicz, 1963, p. 170). The subjectivist approach suggests the importance of the intellect as what comprehends these values, however, this should not be understood as if the objectified values were neglected, they still act as the source of such experiences (Tatarkiewicz, 1963). Accordingly, the aesthetic experience must be analyzed through these main elements; objective properties and how the subject perceives them. This will enable to seek the correspondence of these elements in architecture to get a potential understanding of the non-measurable qualities of architecture and how the subject relates to them.

2.2   Investigating the Aesthetic Experience

Fenner (2003) claims that "the 'raw data' that aesthetics is meant to explain is the aesthetic experience" (p. 40). Accordingly, this section sought after the question of "what makes an experience aesthetic?" to understand its vital and pivotal components. These components are presented in accordance with what has been gained from the framework of the historical background of aesthetic discipline; objective qualities and their acquisition by the subject. Following the initial question, where the potential aesthetic-ness of the object can be sought is investigated to understand the source of the aesthetic experience. This is done by exploring the theories and discussions to examine the potential of an object possessing an aesthetic value, rather than presenting rules on how to create these objects aesthetically. Following this, the aesthetic attitude of the subject, as the way of recognizing and acquiring the aesthetic quality, is

explored. This investigation presents the foundation of aesthetic-ness for both object and subject so their correspondence in architecture can be analyzed.

As Listowel (1952) articulates;

> Aesthetic experience has two complementary aspects, subjective and objective, and that it consists of a fusion between these two components. Beauty is an aesthetic experience, and this experience is itself a unique relationship between subject and object. (p. 29)

He further asserts that "(…) it is impossible to understand how and why we respond aesthetically to things without examining carefully the external stimulus as well as what happens in our minds" (Listowel, 1952, p. 18). The minds of the living are in continuous effect of experiences, transitioning from one to another since interactions with objects and events are always present in every process of living (Dewey, 1980, p. 35). Since daily life is full of objects and events that evoke experiences, a transition between these interactions should be understood as a flow rather than parts that are separate from each other. This flow is from one experience to another without having any gaps in between and each has a distinction in itself. Just as Dewey (1980) puts it; "because of continuous merging, there are no holes, mechanical junctions, or dead centers when we have experience" (p. 36). The transitions between experiences can be referred to as pauses at most which help to divide and define what came before and would come after.

This unique experience has been referred to as an aesthetic experience, which resides among the rest of the experiences in daily life such as religious experience, social experience, moral experience, etc. Among these varying experiences, it is the aim of aesthetics discipline, as a branch of philosophy, "to consider where in life the aesthetic attitude is to be found, and what is its peculiar form of value, as distinguished from other attitudes and objects in our experience" (Bosanquet, 1923, p. 2). As mentioned above, the subject has to perceive the qualities of the object for a potential aesthetic experience to occur. The way how the subject relates to the qualities and comprehends them is through the aesthetic attitude. Bosanquet (1923) further elaborates it by saying that "preoccupation with a pleasant feeling, embodied in an object which can be contemplated, and so obedient to the laws of an object" (p. 10). This attitude is directed at the object to realize its aesthetic qualities. Similarly, Dokic (2016) asserts that the

"aesthetic attitudes that are themselves primarily focused on a (more or less diffuse) aesthetic object" (p. 81).

Accordingly, it is possible to claim that the aesthetic qualities of the object infect the subject and initiate the occurrence of an aesthetic experience. Mitias (1982) claims that "we cannot understand how or why an experience is aesthetic unless we also know what makes an object aesthetic, for, after all, it is the object which occasions the experience and also gives its structure" (pp. 158-64). As mentioned, the aesthetic qualities of the object infect the experience and make it evolve into something unique. Similarly, Ingarden (1961) also indicates that when a value is being perceived and initiates an aesthetic experience, these values act like "both the source and the object of aesthetic experience" (p. 291). After all, experiences cannot be aesthetic on their own, but rather the objects, as a cause and the source of these experiences, can be aesthetic to be recognized by the subject. Aesthetic experiences cannot be understood apart from their objects, and they cannot be separated and isolated as standalone qualities similar to how they can be on the objects. Colors, textures, materials, etc., can be used to define the qualities of objects, however, "aesthetic-ness" does not belong to experiences in a similar fashion (Mitias, 1982, p. 164).

Accordingly, initially, where the aesthetic-ness of the object being sought has to be investigated, but not how those qualities can be generated in detail. This will enable establishing a foundation for aesthetic qualities to be further analyzed in the setting of architecture. Following this, the subject, as the host of the experience, requires to be investigated to present the potential ways of acquiring the aesthetic quality from the object. This investigation will be expanded over the subject of architecture as the host of potential aesthetic experiences in architecture and explore the concept aesthetic attitude in the discipline of architecture.

2.2.1 Aesthetic object

This section explored the foundation of the potential aesthetic-ness of the object to understand the source of the aesthetic experience. This is done by featuring the existing theories to examine the aesthetic quality of the object, rather than presenting rules on how to create aesthetic objects. The importance of the apparent form and how it relates to the perceiving eye is investigated. Following this, questions regarding the impact of

functional qualities on the object are directed to enable its extensive analysis in the following chapters. Lastly, it is argued over the aesthetic object as a source of communication since an intellect has to receive the values that are being communicated over. This section indicated that the object has to be comprehended by an intellect so the importance of the subject can be analyzed to fully understand the aesthetic experience.

Much of the appeal of an aesthetic object originates from the immediate impact it has on the senses of the observers. Through its sensible attributes, it sustains a sensory relationship with the observer. Similarly, Mitchells (1966) asserts;

> Non-aesthetic perception in every-day life and in scientific enquiry is practiced predominantly in order to recognize, distinguish and analyze objects. It tends to focus on these as separate units taken out of their perceptual context and registers neutral qualities for their information content. By contrast, in aesthetic experience we appreciate what we perceive for its own sake and are receptive to its character qualities. (p. 57)

So, when it comes to the object itself, its "aesthetic" values as we grasp them in perception, the sensible ones, are "the arrangement of and relation between the lines, colors, shapes, tones, or words that constitute its peculiar form" (Listowel, 1952, p. 24). What the "form" suggests is the unity of these properties as a whole and that is what distinguishes the aesthetic object from the ordinary. Similar to how Goldman (1990) puts it; "what makes physical properties aesthetic is their structure and their unity as a whole" (p. 28). So, the physical properties are the components for an aesthetic object to be perceived and recognized as it is. However, these perceivable attributes cannot be meaningful on their own. Because "meaning becomes a phenomenal property of an object only after the object has been perceived" (Weber, 1995, p. 28). If that wasn't the case, then everything in the environment would have been an aesthetical object since these components such as colors, textures, or musical notes, already exist in nature. The "form" is the total expression and representation of these components, and their certain arrangement is what devotes the value of aesthetic-ness.

Following this, it should also be noted that, unlike normal understanding of ordinary objects that are typically perceived as "systems of instrumentality," it is claimed that in aesthetic perception, the object is "stripped of its instrumental 'values'" (Zenzen,

1976, p. 471). With the varying functions that an object can have, the use and function of an object do influence its aesthetical or ordinary perception of it. Zenzen (1976) further explains that "in our ordinary dealings with objects we usually are involved in a task which requires the manipulation of the objects to achieve a certain end; thus, the objects are at my disposal, there to be handled and utilized" (p. 473). This idea can be further expanded onto the field of the functionality of aesthetic objects by directing a question such as "would it be possible for an ordinary object to also possess an aesthetical feature while maintaining its 'ordinary' functionality?" or "can being fit for its function be considered as its aesthetic value?" The aspect of functionality possesses great importance for the investigation of aesthetic experience in architecture since it is possible to see extensive discussions over the aspect of functionality throughout the history of architecture (de Zurko, 1957b).

It should also be noted that the qualities can only express their aesthetic-ness to some extent since "the artistic expression of feelings is confined to those that can be communicated by the given medium" (Kemp, 2021, p. 320). "Communication" can be understood as a keyword in this relation. It indicates the type of relation between the subject and the aesthetic object and suggests that even if the object is "aesthetic" the subject also has to comprehend the "aesthetic-ness". With the consideration of the subject's importance, another problem is also introduced to the aesthetic discussions. As Ferry (1993) puts it;

> The individual's relation to the world is going through a profound dislocation, and that the relation to the idea of an objective universe, simultaneously transcending him and uniting him to others, has become singularly problematic. (p. 8)

To consider the relation between aesthetic objects and the subject, Townsend (2002) asserts that the aesthetic object is the thing that the subject can refer to and can be the source of the experiences that are described in aesthetic terms (p. 103). This further implies the significance of the subject as much as of the objects.

If humanity suddenly perishes from the Earth, oxygen atoms, for example, can still sustain their existence since their existence does not rely on humanity. However, it can be argued that the same cannot be said for aesthetic values. The moment when the existence of humanity comes to an end, there won't be any subject to recognize,

realize, comprehend, judge, and appreciate them; thus, objective values would not achieve their aesthetic-ness. This carries close resemblance with the philosophical thought experiment that raises questions regarding observation and perception, supposedly said by George Berkeley; "if a tree falls in a forest where no one is around, does it make any sound?" To further explore this problem, Montesquieu (as cited in Ferry, 1993) claims;

> It is the various pleasures of our soul which shape the objects of taste, such as the Beautiful (…) The Ancients had not properly unraveled this. They saw as positive qualities those which are relative to our soul (…) The sources of the Beautiful, of the Good, of the Pleasant are thus in ourselves; and to look for the reason is to look for the cause of the pleasures of our soul. (p. 9)

The aesthetic-ness of the object has no reality except for the subject; its quality can only be judged and devoted to it through an act of humanity. As mentioned in the previous section, this act is the aesthetic attitude of the subject. In the following section, the nature of this aesthetic attitude, as how the subject becomes aware of the aesthetic quality of the object, is investigated.

2.2.2 Aesthetic attitude

It has been stated that an aesthetic attitude is what "we imaginatively contemplate an object, being able in that way to live in it as an embodiment of our feeling" (Bosanquet, 1923, p. 30). Accordingly, the components of aesthetic attitude as the ways of realizing and comprehending the aesthetic values of the object by the subject are explored. The purpose of this section is to present what kind of perception and attention the subject should have in order to comprehend the aesthetic values. This enabled the indication of the role of the subject in an aesthetic experience scenario so its correspondence can be sought in the aesthetic experience of architecture through its explored attitudes.

It has been mentioned that the concept of aesthetic experience is not completely based on objectivity and certain features of the object. Unlike Antiquity, where it was possible to see aesthetic values being dedicated to objective properties, it is possible to see discussions that explore the significance of the perceiving subject in determining the aesthetic-ness of the value of an object. As Ferry (1993) claims;

> Harmony is no longer thought of, and this is the real break with antiquity, as the reflection of an order external to man: it is no longer because the object is intrinsically beautiful that it pleases but, rather, we can go so far as to say that it is because it provides a certain type of pleasure that we call it beautiful. (p. 9)

This statement praises the subject of aesthetic experience as one who devotes the aesthetic-ness of the quality of the object. The object can possess aesthetic values, but the subject can "call it" beautiful, not the object by itself. This aesthetic claim by the user originates from the experience that they host. Just as Mitias (1982) puts it;

> (I) is the author of its experience; it is the unity of its experiences. It is also the agent which structures the experience. During the experience, I remain the subject which authors the experience and also the medium within which the object becomes a living, meaningful reality in the experience. (p. 159)

Even though the objective properties are the same on two different objects, they can elicit different responses. The same work can be pleasurable for some but not for others. Goldman (1990) parallels this idea with the moral approach by saying that "aesthetic qualities are like moral properties in this regard" (p. 24). Every person has a relative understanding of morality. One can favor the actions of someone else whereas the other may argue against it even though the action itself is the same. According to this approach, aesthetical value qualifiers such as beauty can be handled similarly with the values of morality such as fairness. The kind of characteristic properties and understanding that the observer has affected how the aesthetic values are interpreted.

It has been claimed that the subject can have two different types of attitudes overall; "practical attitude and aesthetic attitude" (Mitias, 1982, p. 167). A practical attitude is when the observer perceives an object in terms of its utility and utilizes it accordingly. Yet, there is also the attitude of disinterestedness that argues otherwise. As an example of the aesthetic attitude, the concept of disinterestedness can be explored through Kant as he discusses it in his "Critique of Judgment" (Kant, 1987). His view over aesthetic experience, or "the pleasure obtained from beauty" as he refers to it is characterized by the concept of "disinterestedness" as a part of the aesthetic judgment, which is aimed at universal validity (Kant, 1987, pp. 45-52). It is the overall way to recognize, perceive, and identify things in the peripheral and direct the mind upon the said object

in a specific manner. Furthermore, this type of 'awareness' that one can have is a substantial part to determine the outcome of the said experience. Similar thoughts can be seen from Listowel (1952) when he says that "the right state of mind needs to be related to the right object for the right experience to follow" (p. 21).

"The right state of mind" is seen as a substantial part of the aesthetical interaction between the object and the subject. According to Osborne (1986), it can even be seen as a way to qualify if the object is aesthetic or not; "an 'aesthetic object' is either anything upon which aesthetic attention is directed or anything which is especially well adapted to evoke and sustain aesthetic interest" (p. 331). This indicates that awareness and attention play an important role in aesthetic attitude. As mentioned previously, the aesthetic-ness of the object is recognized through the attention directed at it. Furthermore, it is argued that this directed awareness, attitude, or attention is heavily based on visual perception. This is because an object can only be the source of aesthetic sensation as minds perceive and imagine it. Further articulation can be seen from Bosanquet (1923); "anything in real existence which we do not perceive or imagine can be of no help to us in realizing our feeling and (…) nothing which does not appear can count for the aesthetic attitude" (p. 9). This approach puts the values that the object has aside such as its cultural effect, its history, or even its meaning, allusion, and suggests that they are not a factor in acquiring an aesthetic attitude, which, consequently, means that nothing to be looked at visually can affect the judgmental process on aesthetics. This goes in contrast with, for example, the influence of artworks' meaning, history, and effort behind them. How the original statue of David by Michelangelo, located in the Accademia Gallery of Florence, is being treated among tens of other replicas around Italy and the world is a sign of the appreciation of its values which eyes can't see. The original one is known among people and observers have this knowledge alongside the background of it; thus, resulting in its appreciation more than the replicas which carry the exact or majority of its visual properties. Or, with a similar example, how can Debussy with his "The Snow is Dancing" piece relate to the audience with the character of each snow piece aimlessly falling from the sky if they have never experienced a snowfall in their lives ever? Goldman (1990) writes similarly to this; "in order to appreciate Tchaikovsky's "1812 Overture" or Picasso's "Guernica," one must know something of the glories and horrors of war, and something of the histories of the particular wars depicted" (p. 27). Further examples

can be given from Francisco Goya's prints to the surrealist paintings. Following these conceptions, it is possible to claim that the observer's attitude can sway toward the appreciation of the work that's being encountered, or otherwise, even if these values cannot be perceived visually.

These values are "excavated" by the subject of the aesthetic experience. This act of recognizing and acquiring the values that reside within the object requires more than perception and the attitude possessed by an observer in a daily life routine. The subject of aesthetic experience now shifts from "a natural attitude of practical life into a specifically aesthetic one" (Ingarden, 1961, p. 299). The term that's commonly used in the academic field for such an act is "contemplation" to further define the qualities of the aesthetic attitude (Stolnitz, 1960, p. 38). It is the action that suggests more effort than simple perception and praises the thoughtful consideration of certain values of the object. Just as Hume (1995) says; "beauty is no quality in things themselves: It exists merely in the mind which contemplates them" (4th dissertation L5). It considers the subject of aesthetic experiences as the entity that questions and investigates. This thought process can vary from questioning the purpose of existence of the object in question to the values and meanings that it possesses which are not apparent to the perception (Carlson, 2000, p. 199).

The contemplative attitude, as a quality of aesthetic attitude, is also considered as a type of communication between the object and the subject. It is an intellectual engagement between the aesthetic object and the aesthetic subject. The latter possesses certain questions, and the former has the answers to them. These answers bring the subject to a realization about the nature of the object of appreciation and this process of realization is the heart of aesthetic appreciation (Carlson, 2000, p. 197). This idea can also be seen with Dokic (2016);

> The metaphor of aesthetic experience as a kind of dialogue between the subject and the aesthetic object suggests an intellectualist view of aesthetic experience, which pictures the subject as explicitly raising questions about her epistemic relation to the aesthetic object. (p. 83)

The analysis of what makes an experience aesthetic presents that, broadly, this experience occurs when an aesthetic subject is under the influence of an aesthetic object. As for the object itself, its aesthetic values, as grasped in perception initially,

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are the expression and representation of aesthetic qualities and their certain arrangement. An aesthetic object's ability to immediately affect the observers' senses accounts for a large portion of its appeal. It is also presented that what qualifies the subject as "aesthetic" is the attitude that the subject possesses toward what is being observed. To be able to investigate the influence of aesthetic experience and the functional aspect of architecture on each other, the correspondence of complementary components of aesthetic experience in architecture must be investigated. This will enable the exploration of the potential relation of the aesthetic subject of architecture when it is considered through the functional aspect of its "object".

2.3   Investigating the Aesthetic Experience in Architecture

It has been explored that the aesthetic subject has to have a certain attitude to realize the aesthetic values of the object. As mentioned, the aesthetic object possesses aesthetic values so the subject can comprehend them. Accordingly, this section investigates the correspondence between the subject and the object of aesthetic experience in architecture. This investigation also introduces the idea that considers the functional aspect of architecture as what can possess an aesthetic quality. As well as how the subject can relate to the non-measurable qualities of architecture by signifying the nature and the components of aesthetic experience in architecture.

Considering architecture, it is possible to claim that contemplation over the values and the existence of works of architecture refers to a larger extent. As Carlson (2000) proposes that "the appreciation of architecture is necessarily a more broadly based and less insular experience than is the appreciation of some other art forms (p. 202). Following this, the way how aesthetic qualities in architecture are sensed and got contemplated over has been a topic of discussion (Mitias, 1982). Thus, components of aesthetic experience acquire new interpretations and the way they are analyzed is altered. As Mitias (1999) puts it;

> We are bound to hold that they (aesthetic qualities) exist as potentialities in the architectural work as a physical structure. They emerge, that is, they come into being and become actual, in the process of aesthetic perception. The unity of the qualities that inhere in the physical dimension of the architectural work constitutes what many aestheticians have called the "aesthetic object". (p. 65)

Furthermore, questions such as "whether aesthetic judgments are determined by characteristics of the object or by the viewer's own cognitive makeup?" gains more importance than ever (Weber, 1995, p. 4). The investigation of aesthetic experience made it possible to claim that the aesthetic subject has to have a certain type of perception to interact with the aesthetic values of the object. In architecture, the attitude of the subject becomes even more substantial because the user-architecture interaction can occur in different dimensions. Accordingly, the investigation of the user-architecture relation can be supported with the aid of theories and arguments from philosophy and psychology.

2.3.1 Subject of architecture

This section investigates the aesthetic attitude of subjects of architecture and explores in what ways the subjects can comprehend and interact with the aesthetic value of the "object" of architecture. This investigation is aided by the Gestalt theory and the cognitive processes to be able to analyze how the subject realizes aesthetic qualities over what is apparent and not. This analysis establishes the foundation of a subject-architecture interaction through aesthetic experience so the way the subject relates to the potential aesthetic functional quality of the "object" of architecture can be explored.

There are claims asserting that the engagement of the subject with architecture is mostly based on perception and that the architectural space is defined by how the subjects perceive them (Weber, 1995). This mindset praises the perception of receiving information from what is apparent in architecture. The visual transmission of certain values is far from being a new and popular approach; it has roots deep into the history of aesthetic discussions as well as architectural theory. Mathematical approaches to defining and reproducing beauty are prime examples from history stressing that visuality is indeed a very substantial part of an experience.

Groh (2016) claims that "vision allows us to perceive the shape of objects and their arrangement in the world around us, an ability that impacts nearly everything we do" (p. 7). Similar articulations can be seen in the works of architecture. Scruton (1979) says that "to take an aesthetic interest in a building is to attend to it in all its completeness, to see it, not in terms of narrow or predetermined functions, but in terms

of every visual significance that it will bear" (p. 206). It is claimed that "architecture engages all our senses, how it shapes our perception and enjoyment of (or discomfort with) our built environment" (Roth & Clark, 2014, p. 69). Accordingly, it is possible to consider that the visual acquisition of aesthetic qualities through the perception of the subject is substantial. On such matters, Gestalt theory plays a significant part in analyzing the visual interaction that a subject has. The word gestalt, a German noun for "shape" or "form", has been applied to scientific principles that were derived mainly from experiments in sensory perception (Arnheim, 1974, p. 4). Gestalt theory is a form of study that is aimed at the description of what sorts of things the eyes see and what perceptual mechanisms account for the visual facts (Arnheim, 1974, p. 4). It is about the visual perception of the apparent information through form and patterns. Similar articulations over aesthetic value can also be seen in Weber (1995);

> That which is to be perceived, needs to be intelligible to the senses; that which is to be perceived must possess in itself a kind of order that can be apprehended within the biological parameters of human perception. (p. 110)

When the subject perceives the visual information, the mind organizes the data acquired. However, this organization process is not about interpreting each part of the apparent, but rather the greater whole that is sustained by each piece of information. When they are acquired and organized, the mind contemplates the unified whole. This is something more than the sum of the observed parts (Koffka, 1936, p. 176). The idea of parts generating a whole beside the total of its parts originates from Aristotle. Aristotle (2009) claims that "in the case of all things which have several parts and in which the totality is not, as it were, a mere heap, but the whole is something beside the parts" (book VIII, sec. 6). It is possible to present examples from living creatures as a union of their parts to watches created with a pile of gears but brought together in a specific way. This indicates that the psychological theory of Gestalt is based on philosophical foundations. Just as Mitias (1999) claims;

> It (building) presents itself to my consciousness as a mosaic of sensuous qualities, this presentation is what makes these qualities appealing to my imagination; it is also what makes them an object of contemplation, thereby transforming them from something physical to a spiritual kind of reality. (p. 73)

However, this should not be understood as if the parts are not being perceived. Just as Mitchells (1966) says that "perceptual entities appear to us in gestalt perception as structured wholes articulated into parts. In any given case we can perceive qualities of the whole (e.g., of a human figure) as well as qualities of its parts" (p. 55). On the organization process of the visually acquired information, Gestalt theory suggests the following principles; figure and ground, proximity, similarity, closure, symmetry, continuity, and simplicity (Arnheim, 1974; Roth & Clark, 2014). These principles are focused studies on perceptual abilities that a human has in interpreting visual information. There are also discussions that these principles and their way of organizing the information ease the process of comprehension so they are accompanied by positive and pleasant results within the subject. As Weber (1995) puts it; "the more orderly a configuration, the higher its aesthetic value" (p. 113). Following this discussion, it is possible to claim that what can be visually perceived is the source and "raw material of experience" (Arnheim, 1974, p. 5).

However, aesthetic perception does not solely consist of acquiring the apparent information via visual perception. Percept may not be sufficient to convey the value. As Mitias (1999) puts it;

> From perceiving the color, texture, solidity, and shape of the exterior, and from perceiving the wealth of beautiful details of the interior, I cannot, no matter how much I try, directly perceive or infer that this edifice is a church. To know that it is a church requires another kind of perception or cognitive activity. (p. 64)

The essence of these values is contextualized over and based on their meanings, not based on their certain arrangement of physical qualities. The "meaning" that Gestalt theory is after is different than the contextual meaning. Gestalt theory is to study the "meaningful whole" or "meaningful pattern" rather than the meaning of its context (Roth & Clark, 2014; Weber, 1995). A symbol, for example, may have a unique organization of apparent qualities but what makes it a symbol "of something" is its meaning embedded in it. This approach reconsiders the significance of visual perception in receiving the value that architecture has. As Weber (1995) says;

> Perception is that process by which a mental image, of percept, of an object or phenomenon is acquired. This is a process of segregation and unification by which environmental stimuli are organized into specific forms. Cognition, on the other hand, is how the percept acquires value,

that is, place and function in the individual's universe of knowledge. This is the process by which the percept becomes a meaningful image, and so it necessarily involves recognition, memory and thought. In short, cognition is conceptualization. (p. 52)

Furthermore, visual perception is indeed substantial but it is only the initial step into the cognitive field and must occur before cognition (Weber, 1995, p. 61). Just as Groh (2016) asserts; "your brain's sensors measure light at millions of positions along the retinal surface or detect the tension at myriad locations in your arms, legs, fingers, and toes. But these are only the first steps toward building a sense of space" (p. 20). Furthermore, "the clarity of structure and the beauty of form are obviously visible attributes: they are perceived directly through some gestalt formation in the cognitive processes of the brain" (Grabow & Spreckelmeyer, 2015, p. x). It should be noted that cognitive processing is a very deep field that cannot be confined to Gestalt theory. As explained by "The Encyclopedia of Clinical Neuropsychology," cognitive processing refers to a set of cognitive procedures that are used to construct and manipulate mental representations of information and they include; perception, attention, reasoning, learning, memory, imagining, rearrangement and manipulation of information (Byrne, 2005; Krch, 2011). Within this study of architecture, it is acknowledged that when the subject comes in contact with a work of architecture, the information that is present can be acquired with visual perception, but as can be seen from the definition of cognitive processes, the information is not being processed solely with perception, it is accompanied with attention, imagination, manipulation, etc.

Since architecture possesses an apparent form that enables it to be discussed among visual art forms, what is being perceived and how it is being perceived is "pivotal" to the understanding of the subject (Winters, 2007, p. 91). Furthermore, visuality is only necessary for the first stage of comprehension because visual perception is responsible for transmitting what we perceive to the intellect. The continuity of this comprehension takes place in the subject with the effect of the subconscious, including imagination, that is, as a process of cognition in general (Weber, 1995, pp, 4-61, 66-74). At the end of the process of comprehending what is visible (the object), the subject, who receives what is to be conveyed, comes up with an aesthetic judgment and obtains an aesthetic experience (Tunalı, 2012).

However, the processing of visual information that leads to possible experiences needs more articulation. After all, while examining the aesthetic experience, it is presented that the subject needs to have certain attention directed at the visual information. This attention will change how the content is processed and comprehended. It is possible to refer to ambiguous figures as an example. They are figures of which two different content is embedded and merged within each other as a static singular image. With the duck-rabbit ambiguous figure, it is possible to perceive either a rabbit or a duck, but not both simultaneously (see Figure 2.1). The two horizontally parallel reaching parts that are on the left-hand side can either be comprehended as the beak of the duck that faces towards the left or the ears of the rabbit that faces towards the right. This indicates that two different contents can be comprehended separately within a singular image even though the perception stays the same. Besides, Wittgenstein (2004) also asserts that "it is not so much as if I were comparing the object with a picture set beside it, but as if the object coincided with the picture. So, I see only one thing, not two" (p. 169). What can be perceived does not change even though when the attention is directed towards one of the contents, the comprehension leads to a different route of interpreting the information. As Winters (2007) puts it; "in each case we project content onto the perception, thereby treating the figure as if it is *of* the content we project" (p. 23). After all, as already quoted within the section on aesthetic experience analysis above, "the right state of mind needs to be related to the right object for the right experience to follow" (Listowel, 1952, p. 21). This specific investigation establishes a foundation where the relative comprehension of the values of the "object" by the subject of architecture can be explored.
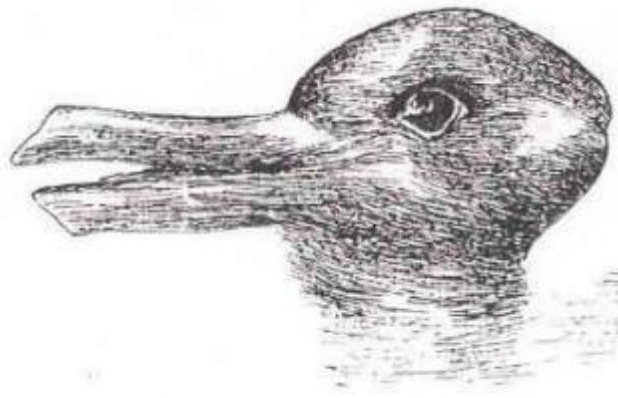
Figure 2. 1 The Duck-Rabbit Ambiguous Figure (Duck-Rabbit, 2022)

This topic of visual information and cognitive processes can lead to further investigations. In the visual arts, it can be explained as the presence of the work is required for the initiation of the experience. However, for sustaining or interpreting it to something further, continuity of presence is not required. Imagination, included in the cognitive process as mentioned above, is a possible way to sustain the experience of the information which was once acquired. As Wittgenstein (2007) indicates the distinction between perception and imagination; "while I am looking at an object, I cannot imagine it" (sec. 621). This idea is rooted in the history of aesthetics and can be seen in Aristotle. As Winters (2007) asserts;

> Aristotle's intuition is right. Perception puts us in contact with that which is present in our environments, whereas imagination calls to mind that which is absent. It is for this reason that we cannot imagine something that is presented to us in perception. (p. 118)

This indicates the overall understanding of imagination as that it involves an imaginary, "non-existent" object (Scruton, 1998, p. 76). What should not be forgotten is that the imagination as well as perception belongs to the cognitive processes (Byrne, 2005). This indicates that when considering imagination, one should also consider the influence of other cognitive processes included in the subjects' cognitive stock such as memory and reasoning. Besides, Weber (1995) says that the aesthetic experience will depend both on the kinds of phenomena perceived and, on an individual's cognitive stock; a stock of accumulated past experiences, personality traits, and so on (pp. 4-5, 36, 84). Furthermore, Scruton (1979) says that "in all architectural experience the active participation of the observer is required for its completion" (p. 94). Imagining within an experience is an active engagement with the content, as opposed to "perceiving" the visual information (Winters, 2007, p. 120). In light of this, it is possible to claim that, in the experience of architecture, perceiving what is apparent is not sufficient to be considered as the sole aesthetic attitude and attention. As Scruton (1979) emphasizes;

> To see a building as architecture is not like seeing it as a mass of masonry. There is a distinction which I shall attempt to clarify between ordinary perception and 'imaginative' perception; I shall argue that the experience of architecture is essentially of the latter kind, and that this fact must determine our entire way of understanding and responding to buildings. (p. 74)

Through the aesthetic experience analysis, it's been acknowledged that an aesthetic object, as a source, is substantial for aesthetic experiences to occur. Although, what has been discussed in this section indicates that this "object" may not always be apparent and exist in different dimensions. There can be cases that call for a "non-existent" object. This raises the questions that seek the "apparent" and "non-existent" objects of architecture. Accordingly, the potential of these objects possessing aesthetic qualities in architecture requires an investigation.

2.3.2 "Object" of architecture

The analysis of aesthetic experience presented that the role of the aesthetic object is the possession and the expression of its aesthetic values so they can be perceived and comprehended by the aesthetic subject. This section investigates the correspondence of aesthetic objects in architecture. Following this, arguments that suggest that aesthetic value does not always have to be derived and comprehended from what is apparent are explored in this section. It has been claimed that, unlike most objects that occupy space, architecture displays space (Weber, 1995, p. 131). As Mitias (1999) elaborates on the realization of this "display"; "space is not an ordinary object of perception like rocks, tables, and cats. (…) We know of it by experiencing it with our bodies and minds" (p. 67). The term "display" is a figure of speech in Weber's case which does not fully relate to the visual display. Because the space of architecture can be recognized through the shaping of the void by the corporeality of physical objects within (Weber, 1995, p. 131). However, it should also be made very clear that both the architectural elements that generate the space and the space itself play a part in being the "aesthetic object" of the aesthetic experience. As Mitias (1999) says;

> They (aesthetic qualities) emerge, that is, they come into being and become actual, in the process of aesthetic perception. The unity of the qualities that inhere in the physical dimension of the architectural work constitutes what many aestheticians have called the "aesthetic object". (p. 65)

After all, tangible architectural elements are what can be visually perceived to comprehend space through the acquisition of apparent information from them.

Many philosophers and architects tried to analyze the relationship between the architectural elements and the qualities of the space regarding their unity. As Zumthor

(1999) elaborates; "in architecture, there are two possibilities of spatial composition: the closed architectural body which isolates space within itself, and the open body which embraces an area of space that is connected with the endless continuum" (p. 21). Perceiving these bodies can be considered as "sensing" them, just as it is pointed out above. The act of sensing and perceiving can be seen simultaneously with Merleau-Ponty (1968); "my perception is (…) not a sum of visual, tactile, and audible givens. I perceive in a total way with my whole being: I grasp a unique structure of the thing, a unique way of being, which speaks to all my senses at once" (p. 50).

Through this statement, it can be argued that to be able to acquire the aesthetic qualities of an environment, all senses of the subject can play a part in the judgment process. Similar to Merleau-Ponty, Pallasmaa (2014) also asserts that "the judgement of environmental character is a complex multi-sensory fusion of countless factors" (p. 230). It is possible to see how architecture can relate to the unity of subjects' senses and the "countless factors" that influence them are being discussed under the concept of architectural atmospheres as its potential aesthetic object (Böhme, 2017).

> After all, atmosphere is something personal, vague, ephemeral, and difficult to capture in text or design, impossible to define or analyze. Atmosphere is precisely that which evades analysis. Although atmosphere can perhaps be seen as the essence of architecture, it is not easily defined, let alone constructed or controlled. (Zumthor, 2013, par. 1)

Such an introduction to architectural atmospheres may seem intimidating since it claims that it is a concept that rejects definitions. But this deep into the thesis, it should already be clear that the aim of defining a concept to the fullest was never the case since it has counterparts both in intellect, psychology and in the physical environment simultaneously. What is important to note here is that these varying types of concepts and phenomena present ways to recognize and know certain aspects of architecture that can exist in different dimensions.

"Buildings accentuate and focus the sense of space, they entail movement suggestions," says Böhme (2017) and continues; "they convey experiences of narrowness or expansiveness, and they articulate space itself as an expanse" (p. 75). The sense of place is not a higher sense unknown to humanity, but a compilation of every sense that receives information from the environment. Following this point, the

architectural atmosphere is a concept that relates not only to visual perception but also to various senses of subjects. As Libeskind (2018) elaborates;

> You can see the musical instruments, (…) but you can't see the music, you can see the materials, you can see the walls and windows, but you can't see the architecture. Architecture is the atmosphere, the story that has been created and you are part of it. (00:30-00:45)

The reason for propounding such a statement is the very elements that atmospheres deal with within the architecture. It is argued that these elements can vary from lighting to temperature, from material compatibility to the objects that impact the environment with their presence (Böhme, 2017; Böhme & Engels-Schwarzpaul, 2017; Zumthor, 2006). Zumthor (2006) analyzes these topics not just to prepare a checklist or a formula on how to create an atmosphere wherever and whenever but to understand how atmospheres may occur. The aim of his pursuit can be understood from his words; "quality architecture to me is when a building manages to move me. What on earth is that moves me? How can I get it into my own work?" (Zumthor, 2006, p. 11). He is frustrated that he wants to know how to "move" the subjects in his designs so that he achieves "quality in architecture". This shows that, according to him, an atmosphere influencing subjects and resulting experiences is what gives quality to a work of architecture. Furthermore, he is an architect, he has to know his proficiency and the outcomes of what he designs extensively. If not, architects would then have to rely on accidental resulting experiences. The point here is not to evaluate the accidental or on-demand experiences' quality but to realize the potential outcomes when an architect designs.

It is certainly hard to put distinct borders around these concepts but the point behind arguing over such a topic is to show that even if an architect desires an answer to the question of "how can I get it into my own work?" it should not be understood as if he demands a checklist to rely on the design process and execute certain actions accordingly but rather for the desired outcomes. With these discussions in mind, analyzing the elements of architecture that have the potential to cause an atmosphere, as stressed by Zumthor (2006), would be helpful to get a grasp of how architectural atmospheres may occur in the field.

Beginning with the tangible frame of architecture; its body. The body of architecture gives its integrity and a place for its attributes to be attached. These attributes may refer to the quality of its spaces or the form that it has, both exists in the body of architecture. It is "the material presence of things in a piece of architecture; the frame" (Zumthor, 2006, pp. 21-3). This body, as mentioned, is a host for other elements of architecture to contribute to the "ultimate whole" and possess certain functions on their own, similar to how it is on a biological body which can be considered as the skeleton to support or the skin itself for cover and as a border. Materials, sounds, temperature, and light can be mentioned as those elements. Each has its qualities and refers to a different sense of the subject. Following this, "materials react with one another and have their radiance so that the material composition gives rise to something unique" (Zumthor, 2006, p. 25). The judgment of that "uniqueness" originates from the subjects and their relation to what is being judged. It is considered as a very tangible attribute, since materials are indeed tangible, yet correspond to sensuous influence on subjects. Materials and their compatibility with each other are the most dominant way to bridge the gap between the physical world and the subjects' spirits (Zumthor, 2006, pp. 23-7, 41-3). It causes a bond to emerge, a psychological and intellectual bond. Each material has its physical attributes that are in close relation to the subjects. By their compound nature, they possess different texture, weight, and look. The relation between their physical attributes is so direct that the looks of certain materials give a piece of knowledge to the subject about their temperature and texture (Zumthor, 2006, pp. 29-31, 33). In a room setting, the temperature between an exposed concrete wall and a sound-damping sponge wall is surely not similar so they are also comprehended accordingly by the subject. The relation between the content received visually and the actual property as it exists can be quoted from Arnheim (1969); "the appearance of any item in the visual field was shown to depend on its place and function in the total structure and to be modified fundamentally by that influence" (p. 54).

Materials are also accompanied by certain elements and become something even richer. Each makes a distinct sound when they are struck and fills the space with sound. From places of worship to concert halls, from kitchens to outdoor areas, some directly manipulate the sound to make the space appropriate for the predetermined function to take place, but some just contain the sounds that subjects generate by themselves. Another element is the light itself. It is the reason why visual perception exists in the

first place. It exists to diminish the darkness since "darkness is the absence of light" (Snopes Staff, 2004). Zumthor (2006) propounds a similar idea by saying that he designs his structures "as pure shadows then afterwards, to put in light as if you were hollowing out the darkness" (p. 59). Considering light as a material is a very unique way of design that leads to recognizing light within material compatibility. It is an element that architects deal with and manipulates to benefit the space. "The evolution of architecture right now is the relationship between matter and light (…) You have to think of light as matter" (Baudrillard & Nouvel, 2002, p. 61).

These elements are considered as a possible cause of architectural atmospheres where can aesthetic value be found. Architects design spaces, in accordance with their elements, and can give birth to such a unique phenomenon; atmosphere. According to these investigations, architectural atmospheres are indeed a candidate for possessing and conveying aesthetic value. Just as Wigley (1998) says; "architecture is but a stage set that produces a sensuous atmosphere" (p. 20). This goes similar to how Weber signified that architecture displays spaces After listing and analyzing all these architectural elements as possible causes of atmospheres, it should be made clear that atmospheres do not exist by themselves, a subject is required to sense their existence, just as how it was with the aesthetic-ness of the objects. Accordingly, Böhme (2017) says that "atmospheres are not beings like things; they are nothing without a subject feeling them" (p. 2). The topic of atmospheres also presents that if one were to examine the relation between the subject and the tangible environment, one cannot separate the two because "in the end, it is the climate of ephemeral effects that envelops the inhabitant, not the building" (Wigley, 1998, p. 18). Accordingly, it is possible to claim that atmospheres are meaningful to the subject and subject only.

Another topic of discussion where the subject plays a substantial part in determining the aesthetic quality of an object is the concept of proportion. This concept in the design process was about having mathematical and geometrical proportions among the parts that constitute the whole at which the visual perception is directed (Weber, 1995, pp. 18-36, 132-241). Similar to the Ancient Greek understanding of it as a way to generate beauty. However, this understanding brought up more issues than it was supposed to solve in aesthetic perception. The most substantial issue that occurred is that proportions and order were about how they exist in mathematics and geometry,

not by how they are perceived by the subject. These qualities can be established on varying elevations and distances to the observers; thus, may not always properly express the proportion and order on which the façade or even the whole building itself relied. Therefore, resulting in no aesthetic appreciation toward them. As Weber (1995) claims that the "absolute proportion and perceptual experience may actually conflict each other" and "the harmoniously ordered façade of a Gothic cathedral choir may seem a puzzling chaos when viewed up close" (p. 29). It is also possible to see how the "perceptual experience" is prioritized over the "absolute proportion" of the Parthenon in Greek. It is constructed with great precision and accuracy to achieve the quality of being "observed proportionately" (Vitruvius, 1955, p. 177). Consequently, every horizontal line parallel to the stylobate is similarly curved and none of the columns are perfectly vertical (Roth & Clark, 2014, p. 242). This shows that the proportions can be troublesome in solely sustaining an aesthetic quality in the form of a building.

Even though atmospheres or forms that are generated in accordance with certain proportions have the potential to generate aesthetic qualities, the aesthetic quality of architecture cannot be solely sought through them. The functional aspect of architecture is also as influential as its atmospheres. Just as Scruton (1979) argues that the "sense of the beauty in architectural forms cannot be divorced from our conception of buildings and of the functions that they fulfil" (p. 10). It is possible to see aesthetic arguments over the functional aspect of architecture through how it should be comprehended and utilized by the subject (de Zurko, 1957a). Accordingly, when the subject of architecture benefits and utilizes the functional aspect of architecture it evolves into being considered as the "user".

When Winters (2007) claims that "the look of the building is just what affords the building its aesthetic character," he does not neglect the functional aspect of architecture (p. 39). He stresses that the functional aspect of architecture achieves its potential aesthetic quality by being appreciated accordingly to its fitness for that function as well as expressing that function through its apparent form, unlike sculpture (Winters, 2007, pp. 39-40). Overall, it is possible to state that architecture "engages our aesthetic understanding by its functional aspect prescribing its form" (Winters, 2007, p. 41). However, it is also possible to claim that the fitness of form to function

may not be confined to what is physical or apparent. It has been mentioned that the object of architecture can exist in different dimensions; thus, require different ways of utilization and fitness. As Scruton (1979) puts it; "that sense of the appropriate requires some kind of imaginative understanding; it requires us to reflect on the look and feel of something, and to imagine what it would be like to live with it" (p. 34). As the subject perceives, comprehends, utilizes, and experiences the work of architecture, the subject can be a part of the order. Accordingly, the spectrum of functions of architecture requires to be investigated throughout its history to get a grasp of how these varying functions can be expressed through formal qualities as well as how they can be utilized by the user.

What is presented above is an investigation of what can possess aesthetic value in architecture. It is explored through the same complementary components of aesthetic experience; how can the subject of architecture acquire the aesthetic value and where and how can the aesthetic value exist in the "object" of architecture. By their nature of it, both of these sections were limited to the potential factors about the acquisition of aesthetic experience and where the aesthetic value can be found in architectural space. These factors consisted of subjects with certain types of attitudes and objects with certain types of attributes. The aim was to present the substantial and influential components of this unique experience scenario in architecture. Accordingly, neither the psychological analyses nor specifying how the objects can achieve aesthetic-ness in detail were considered as a part of this study. As Scruton (1979) claims; "people prefer smooth stone to rough, straight lines to squiggles, symmetrical to irregular forms. Those are psychological observations of no relevance to aesthetics" (p. 2). It may seem like aesthetics is a mysterious topic neglecting any conclusion over it and with the analysis above, this mystery became something even more ambiguous with the concept of architectural space and the intangible atmospheric features within. Although the architectural space investigated as it corresponds to an aesthetic object, it is neither considered as a tangible object nor a thought. Best put by Heidegger (1954); "when we speak of man and space, it sounds as though man stood on one side, space on the other. Yet, space is not something that faces man. It is neither an external object nor an inner experience" (p. 154).

As explored above, the user, as the subject of architecture, can perceive, comprehend and, most importantly, utilize the work of architecture. It has been mentioned that there are discussions that consider the fitness of the work of architecture as a potential aesthetic quality. It is also argued that "the idea that functional/practical concerns in architecture and aesthetic/artistic values can somehow influence each other has not yet been explored extensively in the literature on the philosophy of architecture" (Sauchelli, 2012, p. 129). To be able to investigate this concept thoroughly, the way how the aspect of functionality has been considered and practiced in the history of the architect must be explored. This will present the spectrum of dimensions that architecture functions in and; thus, will signify the utilization of architecture not being confined to practicality.

3. INVESTIGATION OF THE RELATIONSHIP BETWEEN AESTHETICS AND THE FUNCTIONAL ASPECT OF ARCHITECTURE

The investigation of the discipline of aesthetics indicated that the focus has been the aesthetic values of the object that causes the subject to have an aesthetic experience. It has been argued that the importance of the unity of physical qualities and how it is recognized by the user for aesthetic appreciation to occur is substantial. However, alongside the physical qualities and their perception by the user, the functional aspect of the object is also considered as influential as its form since the philosophers of Antiquity. Their theories were about considering the object as appropriate to its intended use and having appropriate arrangement among its parts as an aesthetic value, which is articulated under the concept of appropriateness. It is possible to see that functional appropriateness has also been explored by architects in the history of theory and practice of architecture over the discussions of appropriate form-function relations. Accordingly, this is stressed to understand whether or not the functional aspect is the determinative factor in aesthetically appreciating the form-function relation in architecture. The main inquiry of this thesis is to investigate the function as a mode of interaction or experience between the user and the architectural space. Within the scope of the thesis, this interaction or the experience of the user is considered as an aesthetic problem. Therefore, this chapter begins with an analysis of the concept of appropriateness from its origin; the philosophers of Antiquity. Following this, theories that stress the concept of appropriateness over the form-function relation in architecture are also explored from Vitruvius to the 21st century. Through this exploration, the way architects attempted to achieve appropriate form-function relations and whether or not they consulted additional aspects such as ornamentation to benefit their purpose is analyzed. Lastly, the relationship between aesthetics and the functional aspects of architecture and the potential of aesthetic experience to be considered as an architectural function is discussed.

3.1 Formation of Vitruvian Tradition

In classical Greek philosophy, beauty was claimed to emerge if the object was able to meet the canon, the rules of metaphysical order. This order and its rules were embodied

in the mathematics of the universe. These rules were to objectify beauty as a property of the object itself such as being based on mathematical orders. However, these objectified rules were not the only definitive approach toward the understanding of beauty. It was also claimed that there was a relationship between aesthetic appreciation and the fitness of the object toward its function. The idea was that the object can acquire its aesthetic character by being fit for its use. An utterance of this understanding can be seen in Socrates. As featured in "Memorabilia" by the Greek writer and historian Xenophon, Socrates claims that being "well adapted" for a purpose, in other words, being fit for the intended use is a way to achieve beauty. However, this approach is made possible through the idea of being "good".[1] His understanding was being fit for a purpose is good, which also leads to being beautiful (Xenophon, 2008, book III, ch. VIII). Also, references to the opposite concept of beauty, ugly, can be observed. It is specified as incompetence and failure of the utilization. As a response to Aristippus' question "is a dung basket beautiful then?" Socrates responds "of course, and a golden shield is ugly, if the one is well made for its special work and the other badly" (Tatarkiewicz, 1970a, p. 109). This understanding makes it clear that, for Socrates, being fit for intended use is a necessary condition for something to be beautiful, and the lack of fittingness results in an opposite quality, being ugly. Similar articulations from Socrates also appear in the "Hippias Major" of Plato; "the useful we call beautiful, and beautiful in the way in which it is useful, and for the purpose for which it is useful, and at the time when it is useful; and that which is in all these aspects useless we say is ugly" (Plato, 1982, 295d5). It is a concept that stresses the function-aesthetic value relations. Furthermore, and most importantly, it is possible to see that he also exemplified his understanding of architecture. With an example of "a perfect house," which also translated as "the ideal house" or "a house as it should be," he claims that it has to be made "as pleasant and as useful to live in as possible" by considering its sustainability and security (Xenophon, 2008, book III, ch. VIII).

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[1] Terms "good" and "fine" were used interchangeably in Socrates' dialogs and in the current translated sources. "Good" can be seen in the Memorabilia of Xenophon (Xenophon, 2008). And "fine" in the Hippias Major of Plato (Plato, 1982).

In the following decades, the concept of appropriateness was still being discussed. However, rather than as an idea of being fit for intended use, the aspect of appropriateness was considered in a varying manner. With Aristotle, it was possible to see the concept of appropriateness over the arrangement of parts. He asserted that "structural union of the parts being such that if any one of them is displaced or removed the whole will be disjointed and disturbed. For a thing whose presence or absence makes no visible difference, is not an organic part of the whole" (Aristotle, 1902, 1451a). As mentioned previously, the concept of "whole" is substantial in the theories of Aristotle. The parts that generate the whole must be appropriately arranged relative to each other to generate the whole itself. Each part must contribute to the whole because if not, their removal would make a difference and they wouldn't be a fitting part of the whole. As Aristotle (1995) articulates with the analogy of a hand;

> If the body is put to death as a whole, there will no longer behand or foot except in name, as one might speak of a "hand" made of stone. The killed hand will be like that; for everything is defined by its capacity and function. So, when they are no longer in that condition, we must not say they are the same things, but that they have the same names. (book I 1253a18-29)

The parts that are appropriately arranged in a manner of corresponding to each other and generating the whole relies on certain orders. As Tatarkiewicz (1980) presents, these orders were mainly *symmetry* and *eurhythmy*, which both are signified as; "symmetry denoted cosmic order, the eternal and divine order of nature, while eurhythmy signified sensual, visual or acoustic order" (p. 91). However, Aristotle's approach was not presented under the term of appropriateness but *disposition*. Aristotle (2009) indicates that "'disposition' means the arrangement of that which has parts, in respect either of place or of potency or of kind; for there must be a certain position, as even the word 'disposition' shows" (book V sec. XIX).

The idea of appropriateness was also recognized but expanded on differently with the Stoics. Although, they did not consider it similar to how Socrates or Aristotle did. Their usage of the concept was more in a moral and ethical sense under the term of *decorum*. As explained by Tatarkiewicz (1970a);

> In *decorum* the ancients saw individual beauty, adjusted to fit the specific character of each object, human being or situation (…) The concept was thus not only aesthetic in character but

also ethical, or, more correctly, it was originally ethical, and only later came to include beauty and art. (pp. 189-90)

The Stoic consideration of the concept of *decorum* was regarding context or situation, rather than the mathematical arrangement of the parts, and this approach was asking for thinking, reflecting, and human thought in general (Acar, 2015, p. 82).

Claims over the concept of appropriateness as *décor* are also stressed by Vitruvius (80-15 BC), the Roman architect and engineer from the 1st century BC. He is considered as a very substantial figure in architecture because he produced the first known major work on architecture that reached the present day (Kruft, 1994, p. 21). In his "*De Architectura*" he presents six principles that architectural design should consist of. In the second chapter of the first book; "The Terms of Architecture" Vitruvius (1999) claims;

> Architecture consists of ordering (*ordinatio*), which is *taxis* in Greek, and of design (*dispositio*), which is *diathesis* in Greek, and shapeliness (*eurythmia*), and symmetry (*symmetria*), and correctness (*decor*), and allocation (*distributio*), which is *oikonomia* in Greek. (p. 24)

Correctness corresponds to the idea of concept of appropriateness, however, it's been translated also as *décor* and *propriety* by several other sources (Vitruvius, 1914, 1955). His explanations are as follows from three different translated sources;

> *Décor* demands the faultless ensemble of a work composed, in accordance with precedent, of approved details. (Vitruvius, 1955, pp. 27-9)

> *Propriety* is that perfection of style which comes when a work is authoritatively constructed on approved principles. It arises from prescription from usage, or from nature. (Vitruvius, 1914, book I ch. II sec. V)

> *Correctness* (*décor*) is the refined appearance of a project that has been composed of proven elements and with authority. It is achieved with respect to function, which is called *thematismos* Greek, or tradition, or nature. (Vitruvius, 1999, p. 25)

It is possible to claim that his idea of being appropriate was similar to how Socrates approached it but was in a wider sense. His further explanation of *décor* was about how architecture must be built "fittingly", "appropriately", and with qualities

"suitable" to the intended use of the product (Kruft, 1994, p. 26). However, the "use" was not limited to physical considerations. From ideological values, suggesting that certain temples must be built fittingly and appropriately to their God or Goddess, to moral values, or the nature of the materials (Vitruvius, 1999, p. 25).

He also suggested that architecture has three main departments and works of architecture should be built accordingly to the three leading concepts. These concepts are "strength" (*firmitas*), "utility" (*utilitas*), and "grace" (*venustas*) (Vitruvius, 1955, pp. 34-5). Different translations of these concepts are also present.[2] It is possible to see them as "durability", "convenience", and "beauty" (Vitruvius, 1914, book I ch. III sec. II). As well as, "soundness", "utility", and "attractiveness" (Vitruvius, 1999, p. 26). Their definitions from Vitruvius (1914) are as follows;

> "Durability" will be assured when foundations are carried down to the solid ground and materials wisely and liberally selected; "convenience," when the arrangement of the apartments is faultless and presents no hindrance to use, and when each class of building is assigned to its suitable and appropriate exposure; and "beauty," when the appearance of the work is pleasing and in good taste, and when its members are in due proportion according to correct principles of symmetry.[3] (book I ch. III sec. II)

Following this, Vitruvius' concept of *décor* is also the source of *utilitas*, as the principle of utility, and defines the relationship between form and content (Acar, 2020, p. 32). Furthermore, aesthetics was also the essence of his thoughts. He suggested that the works of architecture "must always be modified for practical, optical, or aesthetic considerations" (Vitruvius, 1999, p. 244). Just as Masiero (2006) puts it;

> Architecture is art that brings together the rules of permanence (*firmitas*), the rules of utility (*utilitas*) and the rules of beauty (*venustas*). In this art, the urgency of necessity, the universality of the laws of physics and the determination of functional rules act together within the possibility of beauty. (p. 52)

Vitruvian content also contemplates a variety of aspects of architecture such as context, social and cultural role, economy, technology, structure, construction,

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[2] Translation has always been a major problem with Vitruvius' *De Architectura*, so to get a comprehensive understanding, this study benefitted from (Vitruvius, 1914), (Vitruvius, 1955), (Vitruvius, 1999), and (Vitruvius, 2017) simultaneously.

[3] See (Vitruvius, 1955) and (Vitruvius, 1999) for other translations.

function, form, aesthetics, ethics, meaning, and sensorial-emotional-cognitive experience (Acar, 2015, p. 4). This indicates that the three leading concepts of architecture can be thought of and applied to a variety of functions and values.

From physical qualities to values that possess psychological correspondence, it is possible to claim that architecture is indeed a discipline of "ultimate whole". What is meant by the term "ultimate whole" is that it has a spectrum of varying functional parts which, as mentioned, relate from structural elements to functional necessities and are appealing to the users simultaneously. Accordingly, the presented approaches from history, "appropriateness to its intended use" can relate to architecture easily with its essential qualities and external purposes that it should serve.

3.2   Renaissance and the Emergence of the New Theories

The work that Vitruvius produced carries great importance for architectural theory and as an approach toward the understanding of the featured concepts. Following him, reaching beyond the Medieval Period, his work was initially studied philologically by the architect and writer Leon Battista Alberti; thus, it is also considered as the initial work of modern architecture (Masiero, 2006, p. 82). His approach was similar to Vitruvius, and it is also easier to see the relationship between beauty and architectural elements directly. Alberti also contemplated three main concepts that architecture subjected to, similar to Vitruvius. According to the ideas of Alberti,

> Each part must be fit for the intended use and should be in good health with terms of strength and durability, each piece must be compressed for solidity and indivisibility, and lastly, each piece should be pleasing to the eye for elegant harmony and should be decorated accordingly. (Masiero, 2006, p. 83)

He maintains that the architect should be accountable "both for the wonderful and ravishing beauty of his works and for the necessity, serviceableness, and strength of the things which he has invented" (Arnheim, 1964, p. 32). Even though Alberti considers the concept of *utilitas* in architecture, he divides it into different functions that a building can have. "Considering the various sorts of buildings," says Alberti (1986) and continues; "some were contrived by Necessity, some by Convenience, and some by Pleasure, it might, perhaps, be no ill definition of the matter" (p. 64). However, he claims that not every building is erected in these accounts. According to

him, there is Variety and Difference among them since there is Variety in Mankind (Alberti, 1986, book IV, ch. I). Therefore, rather than considering buildings just as serving a functional purpose under the concept of *utilitas*, he stresses that they have Variety through human individuality. This understanding impacts the *venustas* element of architecture. Since there is Variety in buildings, "a different type of beauty is proper for each building in accordance with difference in purpose" (de Zurko, 1957b, p. 142).

The same ideology can be seen in how he approached the concept of ornament;

> Between a House in Town and a House in the Country, there is this further Difference, besides what we took notice of in the last Book, that the Ornaments, for that in Town ought to be much more grave than those for a House in the Country, where all the gayest and most licentious Embellishments are allowable. (Alberti, 1986, p. 188)

Accordingly, with Alberti, it is possible to see appropriateness towards both the users as well as the variety of functions that architecture can have simultaneously. As Kruft (1994) puts it; "ornament of a building should be apt to the function of the building and appropriate to its occupants; function (*utilitas*) thus acquires an influence over the aesthetic criteria of *venustas*, but the latter are not absorbed in the former" (p. 45). Since, in Alberti's sense, architectural beauty occurs through the harmony of parts that nothing could be added but for the worse, beauty does not reside in the ornament itself but through how it is utilized (de Zurko, 1957b, p. 143). This understanding of the concept of beauty goes parallel with the Aristotelian manner, suggesting the appropriate arrangement of parts. Therefore, Alberti (1986) defines ornament as an improvement of beauty;

> A Kind of an auxiliary Brightness and Improvement to Beauty. So that then Beauty is somewhat lovely which is proper and innate, and diffused over the whole Body, and Ornament somewhat added or fastened on, rather than proper and innate. (p. 113)

"Ornament", for Alberti, is something "attached or additional," but it is not something that can be neglected (Mallgrave, 2006, p. 32). This puts the ornament in a substantial but secondary place. "The Ten Book of Architecture" by Alberti can be considered as a composite of ideas on architecture and aesthetic values. These ideas are uttered through architectural elements and how they can be arranged properly. For example,

in the 12th chapter of his first book, he discusses doors and windows; he states certain criteria over their fitness for use, structural strength, mathematically and geometrically regulated proportions, and beauty achieved through ornamentation of architecture (Alberti, 1986, book I ch. XII). However, it is hard to find evidence that Alberti distinguished the types of functions to consider their appropriate counterpart in the form to achieve beauty; "whether the purpose of a building (or part of a building) be the amusement of an individual, the well-being of society as a whole, or something intermediate" (de Zurko, 1957b, p. 144). This is an important issue since his relativistic theory of beauty suggests a different type of beauty for each object in accordance with their unique purposes. The problem between aesthetic values and functional aspects of architecture yet resurfaces once again. De Zurko (1957b) claims that Alberti "was confident that the individual human judgment, based on reason and good taste in the service of man's real needs, is the integrator which brings a delightful order out of the chaos of conflicting criteria" (p. 144). Consideration of the individual as a part of architecture is centralized in his ideas.

Attempts to define what architecture consists of and how it should be designed have been embraced by the following architects. In the history of architectural theory, an architect as important as his predecessors is Andrea di Pietro Della Gondola, also known as Palladio (1508-80). The influence of Vitruvius and Alberti can be seen in his ideas. Palladio begins his book "The Four Books of Architecture" by featuring Vitruvius' three departments of architecture and expands on them. In his ideas, the perfection of a building can only be achieved through "utility or convenience", "duration" (durability), and "beauty" (Palladio, 2013, book I ch. I). It has been mentioned that the utility aspect of Vitruvius is associated with the concept of *décor*. The same can also be said for Palladio's understanding of utility (*conveniency*) as it includes *décor* but also beauty (Kruft, 1994, p. 89). His definition of conveniency is as follows; "house only ought to be called convenient, which is suitable to the quality of him that is to dwell in it, and whose parts correspond to the whole and to each other" (Palladio, 2013, book II ch. I). It is possible to see the importance of the user once again in discussions over the utility of architecture. The last part of his definition also carries a close resemblance to his definition of beauty;

> Beauty will result from the form and correspondence of the whole, with respect to the several
> parts, of the parts with regard to each other, and of these again to the whole; that the structure

may appear an entire and complete body, wherein each member agrees with the other, and all necessary to compose what you intend to form. (Palladio, 2013, book I ch. I)

His approach to the topics of conveniency and beauty in architecture is similar to the manner of Alberti. Conveniency is thought of in accordance with the individual and beauty through the appropriate arrangement of parts as well as its fitness for its purpose. In his book, the section about housing features his concerns over how they should be built. The quality of the site as well as the disposition of halls, stairways, and rooms and how they can be efficiently utilized and sustained are presented. It is possible to see how he attempted to execute his ideas in his Villa Rotonda (1567-1592) (see Figure 3.1). As Palladio (2013) expresses his thoughts;

> The site is as pleasant and as delightful as can be found; because it is upon a small hill, of very easy access, and is watered on one side by the *Bacchiglione*, a navigable river; and on the other it is encompassed with most pleasant risings, which look like a very great theatre, and are all cultivated, and abound with most excellent fruits, and most exquisite vines (…) there are loggia's made in all the four fronts; under the floor of which, and of the hall, are the rooms for the conveniency and use of the family. (book II ch. III)

In Palladio's case, "parts" to be arranged appropriately for the intended use should not be solely confined to architectural elements but also for the purpose of the work of architecture. In the 16th century, Venetian merchants underwent an economic crisis and they started to focus on agricultural productivity for their businesses which "drew aristocracy to the country" (Ackerman, 1984, pp. 48-54). This resulted in the convergence of two different worlds in Palladio's designs; rural productivity and aristocratic life. Each one brought its specific functional requirements. Also in Villa Barbaro (1558-1570), the accommodation area is located in the middle of the structure, and the areas related to agriculture and animal husbandry are located on each side of it (Porro, 2021, p. 50) (see Figure 3.2). This notion can also be seen in his Villa Badoer (1557-1563) which also has "wings for farming functions" (Ackerman, 1984, p. 58) (see Figure 3.3). It is possible to claim that, throughout his designs, functional and aesthetic considerations complemented each other with the Vitruvian concepts in their foundation.

Figure 3. 1 Villa Rotonda (Barbero, 2012)

Figure 3. 2 Villa Barbaro (Howard, 2011)

Figure 3. 3 Villa Badoer (*Villa Badoer*, 2022)

Contemplation over the Vitruvian concepts of architecture and expanding on them is not limited to Alberti or Palladio. Theoretical discussions over architecture started to take place at a more increasing pace than ever. Furthermore, notions of appropriateness for the intended use in architecture and the importance of the individual and society are also kept debated. Aesthetic considerations and functional aspects of architecture continued to be a substantial part of the theoretical debates for both architects and philosophers. Belonging to the 16th and 17th centuries, philosopher Francis Bacon (1561-1626) introduced ideas that suggest a hierarchy among the aspects of architecture with his "proto-functionalist" approach (de Zurko, 1957a, pp. 62-9). Bacon (1908) begins his "Of Building" essay in his "Essays" by claiming that "houses are built to live in, and not to look on; therefore let use be preferred before uniformity" (p. 203). Through this claim, it becomes possible to see that, according to Bacon, the most important aspect of architecture is utility, which comes before aesthetic considerations. He follows it by further emphasizing the importance of the disposition made with functionality in focus on the arrangement and the appearance of architectural elements. His ideas over how a "fair house" should be designed stress many aspects; considerations over the climate and the quality of air that the house should get, proper location in the terrain for both construction and production as well as its relation with its neighbors, etc. (Bacon, 190, pp. 203-10). These considerations carry a close resemblance with Palladian thought; simultaneously stressing the functional and utilitarian aspects.

Sir Henry Wotton (1568-1639), who had extensive knowledge of European and Palladian architecture, is also among the architects who got influenced by his successors (Kruft, 1994, p. 231). "Our principle master is Vitruvius," says Wotton (1624) in the preface of his book "The Elements of Architecture," because his understanding of "well" and "good" building relies on the three "conditions" of architecture; "*Commoditie*, *Firmness*, and *Delight*" (Wotton, 1624, pp. 1, 116). However, he does not completely resonate with the six principles of Vitruvius. Wotton (1624) claims that *ordinatio* and *dispositio* are not actual principles as the rest because the prior is a stage in architecture and the latter is the expression of it (p. 118). Following this, it is also possible to see the consideration of the individual in his understanding of the *décor* concept. Rather than focusing solely on the functional quality as its appropriateness, he simultaneously considers whom it is appropriate for by claiming that "*Décor* is the keeping of a due respect between the Inhabitant, and the Habitation" (Wotton, 1624, pp. 119-20). He also possesses a similar understanding with Bacon over the functionality aspect and places it to the utmost importance. His claim is as follows; "that the Place of every part, is to be determined by the Use" (Wotton, 1624, p. 7). Once again, utility and the functional aspect of architecture are considered as the concept that the rest should be determined after.

3.3 Institutionalization of Theory: The French Tradition

Towards the end of the 17th century, it is also possible to see the significant contribution of French society to the history of architectural theory. Académie Royale d'Architecture, founded by Jean-Baptiste Colbert (1619-1683) in 1671, enabled a place for such cause to take place (Al Shihabi, 2017, p. 230). The task of the Académie consisted of discussing the topics of architectural theory and establishing an architectural doctrine (Pevsner, 1973, pp. 88-93). Germain Boffrand (1667-1754), as an influential member of the Académie, also stressed the concept of function in architecture. Boffrand (1745, as cited in Kruft, 1994) claimed that "insofar as it relates to the whole, each part should be proportionate, and have a form appropriate to its use" (p. 145). Once again, the appropriateness of parts to the whole and form to the intended use is a topic of debate. However, what makes Boffrand a substantial figure in the history of architecture is that he introduced the notion of *caractère* (Al Shihabi, 2017,

p. 230). Boffrand's (1745, as cited in Mallgrave, 2006) understanding of *caractère* is as follows;

> Architecture, (…) in which its component parts are so to speak brought to life by the different characters that it conveys to us. Through its composition a building expresses, as if in the theatre, that the scene is pastoral or tragic; that this is a temple or a palace, a public building destined for a particular purpose or a private house. By their planning, their structure and their decoration, all such buildings must proclaim their purpose to the beholder. If they fail to do so, they offend against expression and are not what they ought to be. (pp. 191-2)

This indicates that *caractère* is considered as the act of expression that a work of architecture should have. A similar definition is also presented by de Quincy (1832, as cited in Al Shihabi, 2017); "*caractère* evolved in architecture to express a small number of distinguishing or salient traits that proclaim the essence of an edifice to viewers and that remain etched in their minds" (p. 228). With the same mentality of expression, he even goes one step further to that a "building should express the *caractère* of its occupant or its function" (Kruft, 1994, p. 145). The phrase "caractère *of* its occupant or *its* function" indicates that *caractère* is the "trait" or the "essence" that is possessed as to be expressed. Yet, initially, it is claimed to be the act of expressing the trait, not the trait itself. Through these claims, Boffrand established a foundation for a substantial concept to be built on; *architecture parlante*, as the architecture that "speak to the spectator's mind" (Kaufmann, 1952, p. 447).

Boffrand's idea of "building, expressing its *caractère*" heavily influenced the architectural theory and the following architects. As a student of Boffrand and as a professor at the Académie, Jacques-François Blondel (1705-1774) also elaborated the concept of *caractère*. With the same understanding of Boffrand, Blondel also considers it as a guide for the "expression of a building's desired essence and the purpose or purposes" (Al Shihabi, 2017, p. 240). This indicates that, just as it was with the Boffrand, *caractère* is not the essence nor the function, it is the expression of them. Yet, he presents this concept in a more condensed way. He claims that every work of architecture has to express its intended purpose and must have an appropriate form to it (Kaufmann, 1952, p. 441). This understanding resulted in him assigning a different caractère to each variety of building; temples with *dècence*, public buildings with *grandeur*, monuments with *somptuositè*, etc. (Kruft, 1994, p. 149). Even though it is not indicated in any explored sources, it is possible to question its similarity with

Alberti's notion of Variety in buildings, both claiming that each building has a different utility and beauty. Moreover, J. F. Blondel is not supportive of heavy ornamentation. He condemns over-ornamentation and he claims that students of architecture must be "cured" of the madness of excessive decoration and should be focused on simplicity (Kaufmann, 1952, pp. 437, 440, 444). He even goes a step further to say that architects don't deserve to be referred to as such if they rely solely on ornamentation to generate the architectural program (Schmidt, 2002, p. 12). This claim explains that he does not completely ignore ornamentation but asks for its appropriate application. To determine and regulate the use of ornamentation, he argues that propriety and fitness are what should be considered (Schmidt, 2002, p. 7). This indicates that even though the concept of appropriateness is considered with architects who lived in different places and periods, the way how it is practiced is a matter of debate.

The concept of *caractère*, introduced with Boffrand and expanded on with Blondel, became a topic to be included in the architectural principles of the following architects. The concept of *caractère* on expressing the function of a work of architecture is explored also by Claude-Nicolas Ledoux (1736-1806). As a student of Blondel, Ledoux's idea of *caractère* is also the expression of the function but he does not consider it in the practical or structural sense. His approach is about the symbolical function which resulted in the neglection of practicality, it is the *caractère* having precedence over usability (Kruft, 1994, p. 165). He either expresses the use of the building, the idea that it represents, or both simultaneously (Rosenau, 1946, p. 167). After all, for Ledoux, "architecture consisted not only in utility but in the expression of function: *architecture parlante"* (de Zurko, 1957a, p. 165). The most obvious example would be the Oikema House of Pleasure (1780) (see Figure 3.4). It has a phallic-looking plan that allows for a ritual-like path to be taken for sexual intercourse (Vidler, 1981, p. 62). The caractère of the building is the expression of bodily symbols. The plan acting as an instrument in conveying the building's program while also being a "playful conceit" describes the tension in *architecture parlante*; the coexistence of "parlor game and biting commentary" (Singley, 1993, p. 177). Furthermore, the Oikema brothel building is devoted to sex education for couples, yet it had no windows which enables a mode of imagination when observed from outside to generate wonder over what is happening inside (Rosenau, 1946, p. 164).
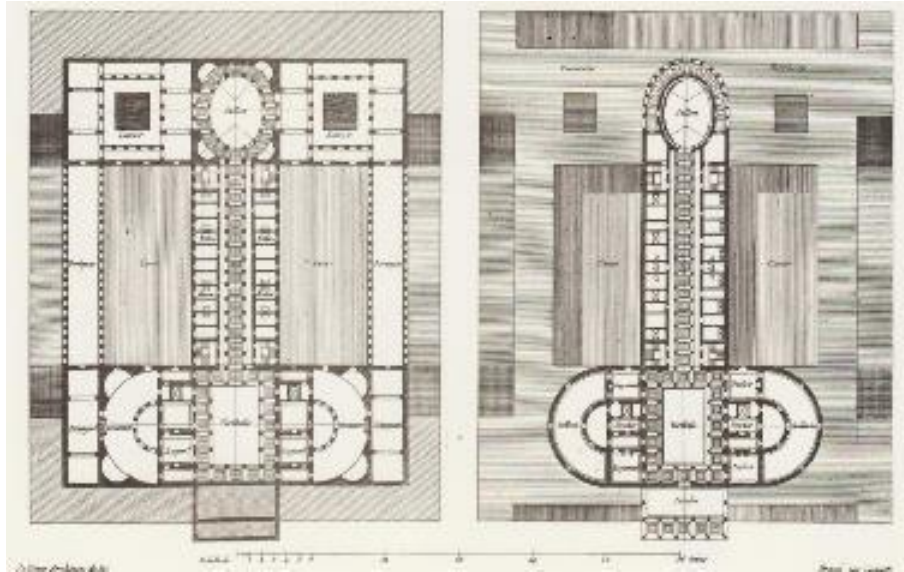
Figure 3. 4 Oikema House of Pleasure (*Oikema House of Pleasure*, 2020)

Kruft (1994) asserts that "the fascination lies in the extent to which the idea is taken; the idea has become pure image, but never architecture (p. 165). Executing these ideas in the physical world and embodying them in physical mass was never detrimental. The point was to present and expand on visionary ideas unbound from structural confinements. As a pupil of both J. F. Blondel and Boffrand, Etienne-Louis Boullée (1728-99) presented such "visionary designs" that it is possible to see how far ideas can expand when they are unbound from considerations over their transition to the physical world (Mallgrave, 2006, p. 210). Because "true architecture," according to Boullée, is not a matter of "mechanical procedure," but a creation of the idea (de Zurko, 1957a, p. 163). His Cenotaph for Isaac Newton (1784) is a gigantic spherical monument that can be considered as the representation of his theories in architecture (Mallgrave, 2006, p. 213) (see Figure 3.5). A sphere, according to Boullée, is "an image of perfection" because every point on its surface is in an equal range from its center and whatever angle is being observed, it will always be beautiful and perfect (Boullée, 1976, p. 86). He also argues that architecture is presented as an image created by solid geometrical bodies (Kruft, 1994, p. 158). The foundation of such ideas is claimed to originate from his training as a painter (Kaufmann, 1952, p. 454). The enormous sphere of Newton's monument represents the Earth and Newton's discoveries "which is practically without function" (Kruft, 1994, p. 158). This is a clear expression of his approach to the matter of architecture since he considered that

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practical concerns can "hamper" his ideas (Kaufmann, 1952, p. 473). This stresses that the ideas can be expressed in a more transparent and clear way if the overall practical functionality is almost non-existent.
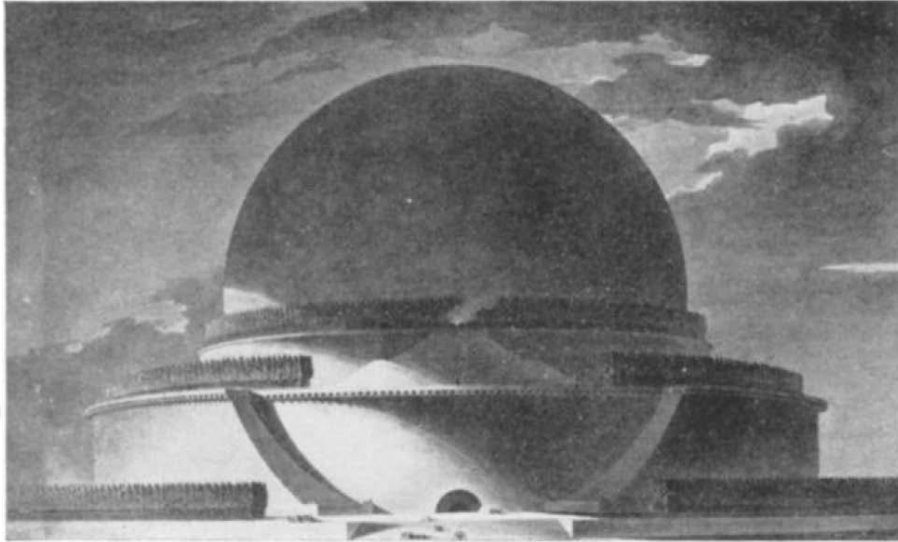
Figure 3. 5 Cenotaph for Isaac Newton (Kaufmann, 1952)

Furthermore, Boullée (1976) claims that "architectural imagery is created when a project has a specific character which generates the required impact" (p. 88). Through this understanding, Boullée criticized Vitruvius on his principles. He claims that Vitruvius has a "flagrant error" in his definition because he mistakes the effect and the cause (Boullée, 1976, p. 83). He reasoned that Vitruvius focused solely on the mechanical and execution side of architecture, whilst ignoring the artistic side of it (de Zurko, 1957a, p. 162). However, Boullée, as someone who had a painting background, is more focused on the impact the work of architecture has on the individual, as can be seen from the paragraph above. He further elaborates on his ideas;

> It is obvious that Vitruvius was familiar only with the technical side of architecture. That at least is what his definition proves; if I confined myself to considering architecture only in the light of Vitruvius's tenets, I believe a more valid definition would be the art of creating perspectives through the arrangements of volumes. (Boullée, 1976, p. 88)

This impact is the notion of *caractère* and is very similar to the understanding of Ledoux, it is not solely about the utility but the expression of function, which is *architecture parlante* (de Zurko, 1957a, p. 165). Once again, the idea of considering

symbolism as a "function" of a work of architecture is present since "function" in Boullée's case is non-practical.

Boullée is not the only one who criticized Vitruvian principles and brought a new understanding to study and practice architecture. As a student of Académie under Boullée, Jean-Nicolas-Louis Durand (1760-1834) also argued that Vitruvius had "defects" in his method of studying architecture (Durand, 2000, p. 78). He opposed the separation of the principles of distribution, construction, and decoration, and claimed that such division would lead to the neglection of one or the other (de Zurko, 1957a, p. 169). However, his argument was not about separating the principles but arguing over how "independent" they are from each other;

> To divide architecture into three entirely independent arts, which may and indeed must be studied separately, is to ensure that the aspiring architect will develop a predilection for one of those arts, devote himself to it, neglect the two others, often fail to concern himself with them at all, and consequently acquire only a portion of the knowledge that he needs. (Durand, 2000, p. 78)

His proposition on this matter was to still assert a division among principles of architecture but "it must be a division that binds them together" (Durand, 2000, p. 78). He suggested that architecture should be treated following two major principles; fitness to purpose and economy (Mallgrave, 2006, p. 335). Durand's conception of architecture expanded on these principles. He claimed that the architect's sole concern must be the disposition of these principles since the object of architecture is "the most fitting and the most economical disposition" (Durand, 2000, p. 86). Mainly through the principle of the economy but also considering the principal fitness for purpose, he argued that ornament is a non-essential and redundant concept (Kruft, 1994, p. 274). He opposed the belief that architecture aims to please by achieving beauty through the addition of ornaments (Mallgrave, 2006, p. 335). According to Durand (2000), the aim of architecture is the usefulness for both private and public utility as well as "the happiness and the protection of individuals and of society," not by being a sole object of pleasure full of ornaments (p. 86). This general definition of the aim of architecture seems to recall the ideas of Alberti by considering the individual, society and the variety of utility. Also, he asserts that functionality and usefulness can only be fulfilled with the concepts of *solidité* (strong), *salubrité* (sound), and *commodité* (comfortable),

which were either separate or in other combinations with the previous figures in the history of architecture (Hernandez, 1969, p. 154). Through these conceptions on architecture, he also questioned the necessity of mainly pursuing the notions of variety, effect, and character (*caractère*);

> (…) variety, effect, and character that are observed in buildings are all beauties, all causes of the pleasure that we derive from looking at them. But where is the need to run after such things, if a building is disposed in a manner fitted to its intended use? Will it not differ sensibly from another building intended for some other use? Will it not naturally possess a character—and, what is more, a character of its own? If all of the parts of the building, being intended for different uses, are disposed as they should be, will they not inevitably differ? Will not the building afford variety? (Durand, 2000, p. 85)

His architectural conception distanced him from the aesthetic norms of the past and he set sail toward the fundamental idea of functionalism. With these arguments of Durand, it is possible to see the modern notion of "functional beauty," which considers the emergence of aesthetic value from the functional fitness of a building (Hernandez, 1969, p. 154). The literature review that this study conducted resulted in finding no reference to any possible influence of Socrates on Durand, however, it is possible to indicate the similarity between their approaches. Both are devoting an aesthetic value to what is fit for its intended use while also emphasizing that this value can differ with each object where a different intention is present. Furthermore, Durand does not neglect the ability of architecture to give aesthetic pleasure but rather than considering it as its primary aim, he considers it as a result of what is treated following the "true principles" (Durand, 2000, p. 85). Just as how Socrates stressed that what is fit for intended use is primarily good and so it becomes beautiful.

3.4 Confrontation of Old and New After the Industrial Revolution

Echoes of considering the emergence of beauty from what is fit for intended use in architecture can also be heard throughout the 19th century. Architects or figures who thought and wrote on the theory of architecture expanded on this notion of functional beauty. Aloys Hirt (1759-1837) got influenced by the 19th century French conception of functional beauty in architecture and propounded a similar idea. Just as Durand, Hirt (1809, as cited in, Kruft 1994) also propounded his ideas on the concept of fitness by claiming that "the essence of the beautiful [must] proceed from construction and

from disposition suited to purpose, while ornament gives pleasing aspect proper to its purpose, both exterior and interior, in the whole and in the parts" (p. 293). Through this claim, it is possible to see he also considers beauty as the aesthetic value that "proceeds from" the appropriateness towards the intention. As a professor of the history of architecture and an antiquarian, Hirt also sympathized with Antiquity conceptions alongside his sympathy for French society (Wolf, 1996, p. 18). Accordingly, Hirt (1809, as cited in Kruft, 1994) claims that "the man who builds properly inevitably builds in Greek manner" (p. 293). Therefore, it is possible to state that his architectural theory is a historical construct that originates from Antiquity.

The same ideology that considers "Greek manner" can also be seen with his student Karl Friedrich Schinkel (1781-1841). Schinkel (1979, as cited in Kruft, 1994) claimed that "to build in the Greek style is to build correctly" (p. 299). However, he does not consider the relationship of aesthetic value with the functional aspect of architecture as how Socrates, Durand, or Hirt did. Schinkel (1979, as cited in Kruft, 1994) claims that "the task of architecture is to make something practical, useful and functional into something beautiful" (p, 299). This does not resonate with claims that suggest the emergence of "something beautiful" by being appropriate for the intended use but considers it as the intention itself. In such a case, "function," for Schinkel, acquires a new meaning. According to Schinkel, fitness for purpose consists of three separate notions; "fitness for construction", "fitness for ornamentation", and lastly the "fitness for space distribution or plan" which included the "utmost economy of space" (Tamms, 1931, as cited in de Zurko, 1957a, p. 197). These ideas, especially the concerns over the economy, were also not applied very well in practice and caused arguments between him and Hirt.

It is possible to see how both architects, Hirt and Schinkel, opposed each other through their theories in the design of the Berlin Museum, also known as the Altes Museum (1823-1830) in Berlin (see Figure 3.6). In 1823, Schinkel submitted his initial design of the museum to the king which resulted in discussions over its expanse management, purpose, and function of the building. Schinkel aimed to "affect the viewer emotionally through the museum building" and create a "proper state of mind for experiencing art" (Moyano, 1990, pp. 589-90). Considerations over the aesthetic quality of the building are indicated by the fitness of the building on viewing art. Material compatibility,

disposition of areas, and construction, from which the character emerges, are indeed included in Schinkel's understanding of functionalism (Kruft, 1994, p. 297). However, through his intentions, it becomes clear that the experience of individuals and the aesthetic emphasis was also embedded in his approach to the "function" as a part of it. As a counter-proposal to the Berlin Museum, Hirt also submitted his design where he argued against the "luxury," as an incompatible notion in a museum, as well as providing more exhibition space (Moyano, 1990, p. 590). Hirt's proposition was focused on the organization based on the type of each collection such as a floor for paintings and another for sculptures to be featured in the museum (Crimp, 1987, p. 263). However, as the arguments went on, Hirt resigned from the debates over how the museum should be made but made one last appeal to the king; "the art objects are not there for the museum; rather the museum is built for the objects" (Crimp, 1987, p. 264). This last statement made clearer how both Schinkel and Hirt considered the notion of "fitness for function" for such a program of showcasing art pieces; the latter were loyal to the practical function of displaying art pieces by providing the required space for it whereas the former praised the building as an art piece itself and make it convey aesthetic experience to the users by considering it as the requirement of its program.
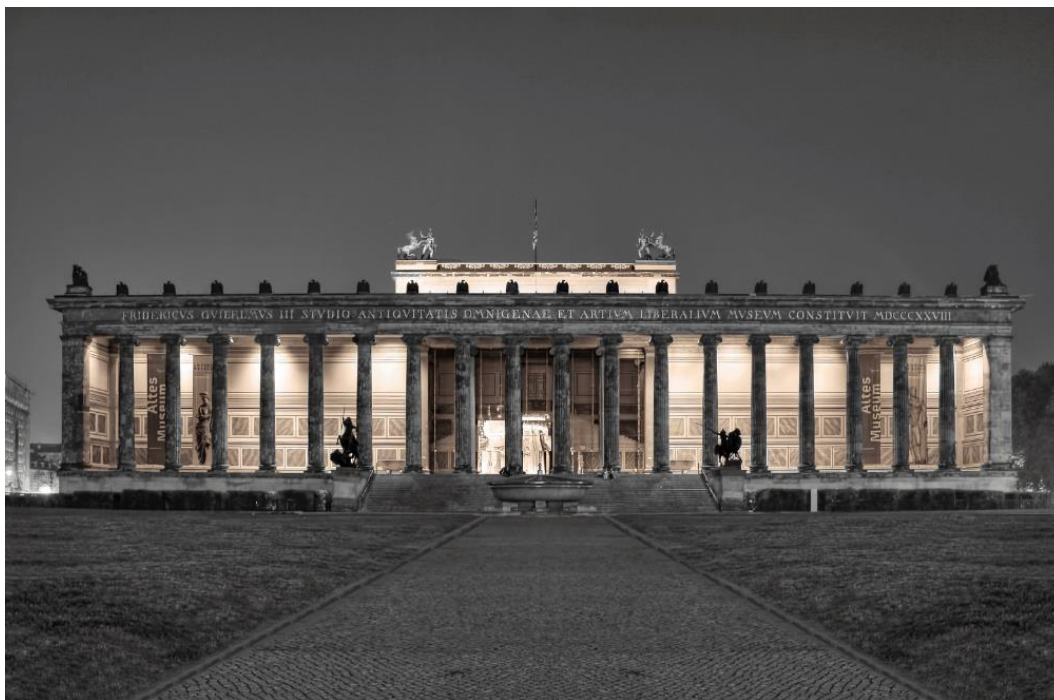
Figure 3. 6 Altes Museum (Mennerich, 2011)

An important phase of debates over the functional aspect of architecture took place within the Gothic Revival era, with both its theory and practice. Gothic Revival is the reapplication of the Gothic style from Medieval architecture and reconsideration of the principles that regulated its design (Eastlake, 1872, p. 1). Gothic architecture is claimed to be originated in France in the mid-12th century and was practiced in private houses to town halls but most frequently on ecclesiastical buildings (Palmer, 2008, p. 123-4). One of the earliest structures built are the Abbey of Saint-Denis (1135-44), Notre-Dame Cathedral (1163-1345), and the Chartres Cathedral (1250-1300), each located in France (The Editors of Encyclopaedia, 2022) (see Figures 3.7, 3.8, 3.9). Gothic architecture witnessed a peak in applications with the expansion of Christianity and spread throughout European countries; Germany, Britain, Spain, and the Netherlands (Robert, 1835, p. 2).
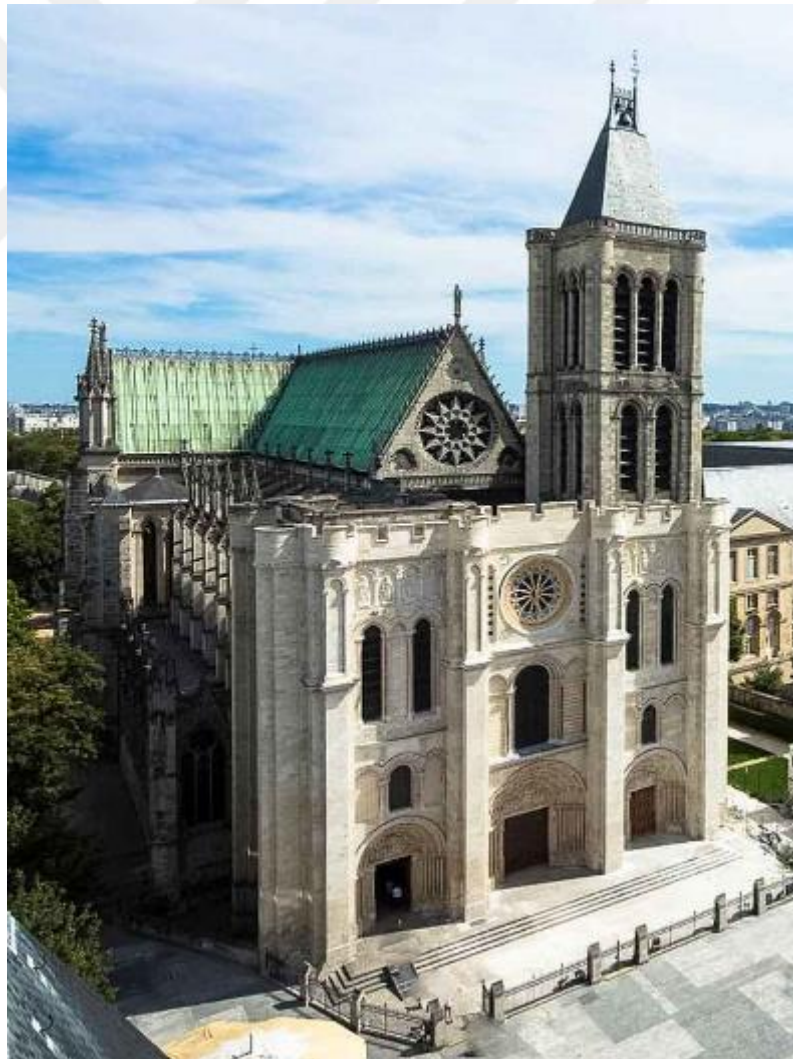
Figure 3. 7 Basilica of Saint-Denis (*Basilica of Saint-Denis*, 2020)

Figure 3. 8 Notre-Dame Cathedral (Badzo, 2017)

Figure 3. 9 Chartres Cathedral (Razvan, 2022)

Stonemasons explored the possible innovations over structural elements to build larger and higher structures. Such explorations resulted in more intricate columns, vaulting systems, and flying buttresses to support the desired structural needs (Palmer, 2008, p.

LI). These attempts resulted in the Gothic style possessing characteristic features that distinguish it from others. Clerestory windows with stained glasses to filter in colorful light to "symbolize the presence of the divine" can also be considered as its characteristic features (Palmer, 2008, p. LI). As well as, the predominance of the pointed arch which has a peak point that reaches upwards unlike rounded or semi-circular arch (Bloxam, 1843, pp. 14-6). It has been claimed that visitors to Gothic cathedrals had associated height and vertical stretching with religious feeling (M. Brooks, 1979, p. 132). According to Palmer (2008), vertical stretching and the pointed arch is assumed to possess a symbolic function; pointing toward where the heavens are (p. 29). It is possible to link this symbolic meaning and the religious experience that the users are supposedly having. Also, Read (1935) claims that what distinguishes the Gothic style from others, and vice versa, is "beyond materialism"; it is the psychological factor of "social consciousness of the races that built such buildings" (p. 21). It has also been discussed that the upward-reaching elements of the Gothic style are somewhat a reflection or representation of human anatomy (Wölfflin, 2016, pp. 58-9). In addition to this, Gothic architecture is also covered in "firework-like" ornaments to both enhance the characteristics and features as well as draw attention to the force and work put into making them (Wölfflin, 2016, pp. 85-6). Such discussions indicate that, in Gothic architecture, what is apparent can also have a meaning or a value embedded in it. This takes the aspect of functionality beyond practicality. Just as Robert (1835) claims that, in Gothic architecture, the "apparent frame is often totally different from the real one" stating the difference between the meaningful "real" one and the visible structure (p. 15). This signifies the ability of the Gothic style to possess a non-physical function (Kruft, 1994, p. 327).

Architects of the Middle Ages established both connections and distinctions between the ideas of practical functionality, formal beauty, good social life, and divine purpose (de Zurko, 1957a, p. 44). Such practices and theoretical discussions can also be seen in the 18th century and reached their peak in the mid-19th century within the era of the Gothic Revival. However, even though the term "revival" suggests the death of Gothic and its resurrection, it is also claimed that Gothic architecture has never died; thus, the term "improved" can be a more fitting one since it suggests that "a living thing that could be adjusted to fashions and tastes of more recent origin" (Donnell, 1936, p. 183). This claim goes back to the book of Langley Batty (1696-1751), initially published in

1742, titled "Gothic Architecture, Improved by Rules and Proportions" (Batty, 1747). Although, it is possible to see opposing arguments that claim "Gothic survival came to an end, and a revival movement arose in its place" (Bernheimer, 1954, p. 283). Therefore, as it is stated above, it would be possible to define it as "reconsidering and reapplication" its principles in a general sense.

There are discussions that argue that architectural styles such as Gothic are an expression of social attitudes and aspects (Wölfflin, 2016, p. 91). This idea is also present with Eugène-Emmanuel Viollet-le-Duc (1814-79), who also considered architecture, including Gothic, as the direct expression of the particular social structure and "nationalist spirit" (Mallgrave, 2006, p. 391). Accordingly, he does not stand by the idea of direct imitation of the Gothic style but by abstraction of its principles; thus, he interprets his period's architectural progression as a continuation of Gothic (Kruft, 1994, p. 283). The modern architect, for Viollet-le-Duc, must analyze the masterpieces of the past, reduce them to a process of argument, then apply the argument to his problems to generate a philosophic point of view applicable to all buildings at all times (Summerson, 1998, p. 141). Viollet-le-Duc also worked actively in the restoration of works of architecture, including Notre-Dame (Mallgrave, 2006, p. 391). His philosophy of how the past should be perceived through principles also influenced his restoration works since it advises them to change according to their present-day philosophy; thus, to this day, it is a topic of controversy (Spurr, 2012, p. 150).

Viollet-le-Duc's understanding of the Gothic architecture of the past was "a structural system almost divinely derived from an increasingly precise understanding of vaulted forces held in equilibrium, supported by an ever more efficient use of materials" which includes every molding and ornamental detail "endowed with a rational or functional value" (Mallgrave, 2005, p. 125). What is meant by "rational" requires elaboration, especially if it is used alongside the aspect of functionality in architecture. Summerson (1998) claims that there can be ways to interpret the meaning behind it; it can be either the aim of fulfilling certain functions with the highest efficiency possible or to express its function to enable an argument that can occur on the user (p. 149). Although, this breeds new terms that require defining such as "efficiency". Is it the same efficiency as considered in the engineering field to calculate the difference between supplied energy and work done by the machine? If so, then what is the correspondence of these

elements in architecture? To "calculate" the information that the user perceives and interprets for a resulting experience or acknowledgment? This thesis initially stated its problem through which quantitative attributes reach beyond measurable in architecture. So, can the requirement of a work of architecture, both for its functionality and its resulting aesthetic outcomes, if there are even any, be fully calculated? If not, then is it embedded in the second statement as the "efficient expression of function"? Summerson (1998) also realizes the issue and argues that "the total requirements of a building can never be mathematically stated" as well as "the function of a cathedral cannot possibly be expressed with precision" (p. 149). The second statement, which suggests the expression of function rationally, indicates a non-measurable notion; both architect's and the user's interpretation of function (Summerson, 1998, p. 149). This goes back to his remark on the modern architect who should interpret and generate a philosophy over the aspects of architecture and apply them to his present-day designs. After all, "architecture (…) is but a form given to ideas" (Viollet-le-Duc, 1875, p. 338). It is possible to indicate that, through his statement, rather than something that can be calculated mathematically, the function becomes an idea that can be interpreted, possess a form, expressed, and can be applied to each given cases accordingly.

Up until this point in this chapter, the idea of each part possessing a function and form expressing that function has been mentioned a lot. With Viollet-le-Duc, it is possible to see an extensive statement that is over the form-function relation;

> To build, for the architect, is to use materials according to their properties and their essential nature, with the express intention of fulfilling a purpose by the simplest and strongest means; it is furthermore to give the built structure an aspect of permanence, fitting proportions, subject to certain rules imposed by the human senses, reason and instinct. The methods employed by the builder must therefore vary according to the nature of his materials, the financial means at his disposal, the particular requirements of each kind of building, and the culture into which he has been born. (Viollet-le-Duc, 1859, as cited in Kruft, 1994, p. 283)

It is surely a statement that can relate to almost every part of the architecture that has been explored previously. From the expression of the function to the economic considerations, from parts constituting the whole to relating to the users' senses to social and cultural aspects, it is all given under the responsibility of the architect. Furthermore, in his theories, Viollet-le-Duc considers the material as much as he

considers the overall function of the building as they both contribute to each other. As mentioned, he considers that a building is a whole generated by parts and claims that "in the edifice, each stone fulfills a useful and necessary function; that each molding has a precise purpose, and that its form indicates that purpose (…) materials are applied according to their properties and indicate those properties by the form given to them" (Viollet-le-Duc, 1919, p. 423). Form possesses a function of expression which is not a very unique case if the history of architecture is considered such as the notion of *caractère* and *architecture parlante*. To further elaborate on his understanding of the form through the consideration of the material, Viollet-le-Duc (1863, as cited in Kruft, 1994) claims;

> First, know the character of the materials that you are going to have to use; secondly, bestow on these materials the function and the strength appropriate to the building purpose, so that the built forms express in the most precise manner possible both this function and this strength; thirdly, introduce a principle of unity and harmony into this expression, that is to say, scale, a system of proportion, an ornamentation in keeping with the building purpose and with its own significance, but also the degree of variety required by the various needs that are to be met. (p. 285)

In Viollet-le-Duc's case, the material and the building have a purpose and function accordingly for that purpose, however, the form itself functions to express their purpose. Kruft (1994) claims that these assertions are to mean that form is seen as the product of function; "form follows function" (p. 285).

The gothic Revival era continued to witness varying interpretations of form, function, and their relation in architectural theory and practice. One of the major figures in architectural theory and the Gothic Revival era is Augustus Welby Northmore Pugin (1812-1852) who is considered as to be one of the "protagonist of the revival of Gothic principles of design" (de Zurko, 1957a, p. 129). According to Pugin, medieval architecture is superior to post-medieval (Kruft, 1994, p. 328). However, he realized that a direct resurrection of the medieval was not possible. His perspective is best put by Talbot (1953);

> He came more and more to realize that no revival of medieval architecture, in the older sense, was possible, because conditions and structural methods had so deeply changed, and that the only thing which was possible was a new architecture beginning where the Gothic had left off. Using Gothic ornament and the pointed arch, for these seemed to him essentially Christian

elements and he was looking for a Christian architecture above all, but trying always to design honestly and creatively in accordance with the necessities of the individual problem, it was the tragedy of Pugin that in his own work he was so seldom able to rise to this ideal. (p. 582)

In his theories, Pugin was heavily influenced by the functionalist theory of French that considers the emergence of beauty from what is fit for its intended use in architecture. It is possible to see the concept of appropriateness in the majority of his ideas. Pugin (1898) starts his "Contrasts" by claiming that the "great test of Architectural beauty is the fitness of the design to the purpose for which it is intended" (p. 1). What makes this a "test" is a history full of attempts to define what that means and how to practice it in the physical world. Because he knew that "different nations have given birth to so many various styles of Architecture, each suited to their climate, customs, and religion" (Pugin, 1898, p. 1). "Intention," in his understanding, varies from considering physical-environmental conditions to ideological beliefs on the design process to be suitable.

According to Pugin (1895), one of the "two great rules of design" principles is "that there should be no features about a building which are not necessary for *convenience*, *construction*, or *propriety*" (p. 1). When considering the propriety of civil, domestic, and private architecture, he utilizes his idea of fitness, which considers the suitability for climate, religion, etc., as mentioned above. In a very direct manner, Pugin (1895) asks; "what does an Italian house do in England? Is there any similarity between our climate and that of Italy? Not the least" (p. 46). It would not be wrong to place this understanding under the notion of Variety since it suggests that each building is unique and different on its own through its location, purpose, etc. As for the buildings that serve a religious purpose, he claims that the "propriety as regards ecclesiastical buildings requires that they should be as good, as spacious, as rich and beautiful, as the means and numbers of those who are erecting them will permit" (Pugin, 1895, p. 37). He initially claimed that "there should be no features about a building which are not necessary" but when it comes to ecclesiastical buildings, he claims that its features should be, in quantity (spacious) and quality (beautiful), as much as they can be. This indicates that what should be understood from "necessity" is not confined to being adequate, but consists of being appropriate, in his means. His approach to the concept of appropriateness is related to the purpose of the building, as can be understood by comparing the varying features and requirements of both civil and religious spaces.

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After all, "propriety in architecture must always be regulated by purpose" and this "purpose" varies from sustaining physical comfort levels to possessing religious values (Pugin, 1895, p. 36). Through this ideology, the idea of the fitness of form to the intended function expands beyond just the practical utility. Simultaneously considering the factors of climate and appeal in different buildings erected for different purposes supports the presence of this mindset. Ultimately, Pugin (1898) propounded that "there is a vast difference between a building raised to God and one for temporal purposes; (…) between monuments raised for public or national purposes and creations for private convenience" (p. 36).

It is claimed that "moral values are at the heart of much of Pugin's architectural criticism" (de Zurko, 1957a, p. 129). It is possible to see his "moral" approach in buildings dedicated to different purposes, although the way he considers the design principles in each of them is different than the others. For religious purposes, he believes that "the greatest privilege possessed by man is to be allowed, while on earth, to contribute to the glory of God" (Pugin, 1895, p. 36). This can be perceived as his reasoning for demanding as much richness and beauty as possible for the cause of religion. Also, for the articulation of practical utilities, he argues over the case of railway stations. Pugin (1843) claims that "building what was wanted in the simplest and most substantial manner" must be the aim to save "tens of thousands of pounds" (p. 10). He also follows it up by saying that architects should keep themselves from "showing off what they could do" and focus on "carrying out what was required" (Pugin, 1843, p. 11). This indicates that, according to Pugin, "as much beauty and richness as possible" in ecclesiastical buildings is indeed considered as "what was required," not "showing off" for God. This point is criticized by Watkin (1977) who indicated that Pugin granted a "special" type of appropriateness to Gothic architecture since he liked it the most, and witnessing the same special treatment on railway architecture is not possible (p. 22). Furthermore, Frampton (1992) also considers the way how Pugin is biased over ecclesiastical buildings as "anti-utilitarian" (p. 9).

The other "great rule of design" is that "all ornament should consist of enrichment of the essential construction of the building" (Pugin, 1895, p. 1). It is possible to associate the term "enrichment" with Alberti's vision of ornaments; considering it as an "addition" not a necessity to sustain and decorate what is "essential". Furthermore,

Pugin stressed that it was wrong to "construct" ornament instead of confining its function to the act of enrichment (de Zurko, 1957a, p. 128). After all, "we shall have therefore to consider ornament with reference to construction and convenience, and ornament with reference to architectural propriety" (Pugin, 1895, p. 2). This also comes down to the concept of appropriateness because "for Pugin, all architectural qualities such as style, character, propriety, and picturesqueness, have to be achieved through fitness of forms for function" which the ornament is also referenced (de Zurko, 1957a, p. 128). As an architect who got influenced by the French theories of architecture, he also considers the notions of *caractère* and *architecture parlante* in his theories under the principle of propriety, even though he never utters these terms themselves. Such a claim originates in the words of Pugin (1895) himself; "what I mean by propriety is this, that the external and internal appearance of an edifice should be illustrative of, and in accordance with, the purpose for which it is destined" (p. 35). Consequently, with Pugin, as someone who got influenced by theories from the past, it is possible to see variety of principles form a unity among themselves, even though they have been criticized. Furthermore, concept of appropriateness still endures and being utilized as a way to achieve the theories of architects, no matter if it were to achieve propriety for purpose, character to express the function, or the involvement of ornament being regulated by it.

What lies above is Pugin's great contribution to the theory of architecture from British society. As influential as Pugin, if not more, is John Ruskin (1819-1900), who is also considered as the other protagonist of the revival of Gothic principles of design (Kruft, 1994, p. 331). The notion of religion and the considerations of ethical thoughts are embedded in his theories. For Ruskin, architecture is an ethical way of life: "a humble recognition of human imperfection and of human striving for salvation" (Mallgrave, 2006, p. 490). With such thought present in his foundation, consideration of ornamentation and the functional aspect of architecture varies with Ruskin relative to those who came before him. Ornamentation, for Ruskin (1903b), has a special function; "the expression of man's delight in God's work" (ch. XX par. 3). Notion of "happiness" resides in the ethical foundation of his idea and it refers to its creator as the function of making the creator happy (Kruft, 1994, p. 332). Considering the creator of ornament, Ruskin (1903c) asks; "was it done with enjoyment? Was the carver happy while he was about it? It may be the hardest work possible, and the harder because so

much pleasure was taken in it; but it must have been happy too, or it will not be living" (ch. V par. 24). Such statements support his thought of the ethical way of "living".

According to him, the principles of architecture are equivalent to those of man's moral life (Kruft, 1994, p. 331). His ethical approach to architecture also influenced the understanding of the coexistence of ornamentation and the functional aspect of architecture. These thoughts can be observed in Ruskin when he displays similar ideas to Pugin over the architecture of railway stations. Just as how Pugin claimed that architects should carry out what was required in the simplest manner, Ruskin (1903c) also claims that nothing should be spent for the railway stations "but for safety and speed" (ch. IV par. 21). This can be interpreted as reducing them to their practical function by rejecting the "function" of ornament in railway stations. According to him, the railway stations are places of "business" and "you must not mix ornament with business" (Ruskin, 1903b, ch. IV par. 18). Furthermore, he also considers the railway stations as "temple of discomfort;" thus, carrying the passengers to their destination safely and in a fast pace would result in the only possible scenario of them thanking the architect (Ruskin, 1903b, ch. IV par. 21). It is surely a utilitarian way of thinking by praising the required function and nothing else. Also, as he articulates his ideas in the "Lamp of Beauty" chapter of his "The Seven Lamps of Architecture" ornamentation cannot be prior to the utility of a work of architecture, similarly to how it was with Alberti, Durand, and Pugin. Such understanding can be observed from him when he claims that ornament should "not to be obtained at the cost of purpose, meaning, force or conciseness (…)" (Ruskin, 1903c, ch. IV par. 34). Moreover, the usage of ornamentation is not permitted "as a mask and covering of the proper conditions and uses of things" (Ruskin, 1903c, ch. IV par. 23). Overall, the ideas of Ruskin over ornamentation can be put as; things that belong to purposes of "active and occupied life" should not be ornamented (de Zurko, 1957a, p. 134).

The "purpose" of railway stations can be understood as transportation as a part of the "active and occupied life" and nothing more than that. Yet, according to Ruskin, the purpose of architecture reaches beyond practical utilization; it is to "draw imperfect human spirit into the sublime reaches of the divine" (Mallgrave, 2006, p. 499). For Pugin, Gothic architecture can be considered as a religious act. Similar thoughts can also be seen with Ruskin (1903c) when he claims that "there is no action so slight, nor

so mean, but it may be done to a great purpose (…) most especially that chief of all purposes, the pleasing of God" (ch. I par. 5). This is the perspective that Ruskin has when he distinguishes architecture from a building. The latter, for Ruskin, serves a practical purpose (Kruft, 1994, p. 332). This indicates that railway stations are not works of architecture but just buildings. He specifies this when he asserts that buildings are those "whose parts are determined by necessity" and can be specified as a "wasp's nest, rat hole, or a railway station" (Ruskin, 1903a, p. 105). Works of architecture are separated from them since architecture, as an act, "is that of giving to buildings (…) such forms and colors as shall delight the mind, by preparing it for the operations to which it is to be subjected in the building" and "in which man can take pride, or ought to take delight" (Ruskin, 1903a, p. 105). This divergence suggests that what is practically functional is not a feature of architecture, but of a building. He even goes further to refer to what is non-practical as "unnecessary" and considers it as the criterion on being an architecture, as can be understood from his own words;

> It would be similarly unreasonable to call battlements or machicolations architectural features, so long as they consist only of an advanced gallery supported on projecting masses, with open intervals beneath for offence. But if these projecting masses be carved beneath into rounded courses, which are useless, and if the headings of the intervals be arched and trefoiled, which is useless, that is Architecture. (Ruskin, 1903a, p. 105)

For Ruskin, "uselessness" is an aspect of architecture, but only in the practical sense. The reason for this is already mentioned above by stating that it reaches beyond practical use. As Ruskin (1903a) further elaborates;

> Architecture concerns itself only with those characters of an edifice which are above and beyond its common use. I say common; because a building raised to the honor of God, or in memory of men, has surely a use to which its architectural adornment fits it; but not a use which limits, by any inevitable necessities, its plan or details. (p. 105)

It has been mentioned that, for Ruskin, things that belong to purposes of "active and occupied life" should not be ornamented. This indicates that the purpose of pleasing God does not reside among daily life purposes; thus, it can be ornamented. So, the presence of ornamentation is an indication of whether a building is just a building or a work of architecture. However, he also claimed that ornamentation must not come before "purpose". So, it is possible to claim that there are two understandings of

"purpose" in Ruskin's ideas; practical functionality and something beyond it such as honoring God or for the memory of men.

The act of use and the notion of function and purpose surely expand on their meaning relative to what has been uttered with previous figures in history. Ruskin's idea over these terms can also be observed from his approach to the concept of functional beauty. Ruskin (1903a) claims that the idea of "Beautiful is the Useful" is based on the "false sense of the latter term" and considers their relationship would be similar to "confound admiration with hunger, love with lust, and life with sensation" (p. 67). This may seem that he denies the emergence of beauty from what is fit for the intended use only if aesthetic values were solely confined to beauty. However, as already articulated previously, that is not the case. Ruskin also considers that usefulness indeed has a value in itself. His ideas can be explored through the admiration of the functional beauty of the sailing vessels. As Ruskin (1903b) wrote in his "Stones of Venice";

> Without any manner of doubt, that a ship is one of the loveliest things man ever made, and one of the noblest; nor do I know any lines, out of divine work, so lovely as those of the head of a ship, or even as the sweep of the timbers of a small boat, not a race boat, a mere floating chisel, but a broad, strong, sea boat, able to breast a wave and break it; and yet, with all this beauty, ships cannot be made subjects of sculpture. (ch. XX par. 8)

As can be seen from his own words, aesthetic value qualifiers are not confined to beautiful but vary from noble, lovely, divine, and graceful. Even though the term "graceful" is not presented in the quotation above, it is possible to see the utterance of it as an aesthetic value qualifier in the context of "graceful form" and "gracefully fitted lines" in architecture, throughout the chapter of "Lamp of Beauty" (Ruskin, 1903c, ch. IV). Therefore, he does not deny the emergence of an aesthetic value from what is functionally fit. Furthermore, not only being confined to functionality, but it is also possible to see such aesthetic value qualifiers from him when he considers the visibility of the structural elements. Ruskin (1903b) claims that an architect does not have to expose the structural elements of his work, however, in case if he does, "that building will generally be the noblest, which to an intelligent eye discovers the great secrets of its structure, as an animal form does" (ch. II par. 7).

It is possible to see the echoes of Ruskin's thoughts on the aspects of functionality and ornamentation in architecture within the upcoming discussions of architectural theory.

A man whose thoughts carry a close resemblance with Ruskin's is James Fergusson (1808-86). He also sympathizes with the idea of ornamentation devoting the status of architecture to buildings and takes it one step further to judge the buildings' qualities. Such an idea can be observed in his "The Illustrated Handbook of Architecture" where Fergusson (1855) presents a diagram of "a cotton factory, a warehouse, or any very common-place utilitarian building" that consists of lined up facades from A, being plain, to E, being fully ornamented (p. xxvii) (see Figure 3.10). This gradual ornamentation includes both "ornaments" and "ornamental construction" which the latter refers to the apparent and ornamental structural elements that give "strength where needed" (Fergusson, 1855, p. xxvii). This should not be understood as if the structural elements possess ornaments on them as a mask to cover their purpose, but the structural element also functions as an ornament itself. According to Fergusson (1855), a façade with no ornament "is not only the most prosaic form of building, but is bad building, as no attempt is made to strengthen the parts requiring it, and no more thought is bestowed upon it than if it were a garden wall or a street pavement" (p. xxvii). He not only does not consider a standing structure erected for specific spatial use as a work of architecture, but he also considers it a bad building. The reason behind such qualification can be understood though the absence of both ornament and ornamental construction, which is possible to claim that it resonates with Pugin's understanding of ornament as the enrichment of the essential construction of the building. The last facade in his diagram not only has the greater amount of ornament "but the parts are so disposed as in themselves to produce a more agreeable effect: (…) grouping of parts is such as to produce a better class of architecture than could be done by the mere application of any amount of ornament" (Fergusson, 1855, p. xxviii). Through this diagram, Fergusson (1855) concludes that "architecture is nothing more or less than the art of ornamental and ornamented construction" (p. xxviii). Furthermore, he shows a closer interest to ornamental construction than the ornamentation by saying that "all instances of ornamental construction (…) beautiful even if without ornament" such as the Stonehenge as an "instance of ornamental construction but without ornament" (Fergusson, 1855, p. xxviii). This indicates that ornamental construction is substantial in possessing an aesthetic character such as beauty.

Figure 3. 10 Forms of façade decoration with variation (Kruft, 1994)

Fergusson considered ornamental construction as "strengthening" the parts where needed, as mentioned above. However, "strengthening" means that something is already functioning as it is, but it can be taken to a further and more sound state. According to Fergusson (1855), it is the purpose of the architect to arrange the materials that have been already considered by the engineer and "double the effect of the disposition" by producing an overall form that is "permanently beautiful," which is the "beautiful form" (p. xxix). Kruft (1994) interprets this idea of beautiful form enhancing the effect as it comes close to the 18th century concept; *architecture parlante* (p. 335). Form manages to "tell tales" and "express an emotion" to the observer with the addition of ornamentation (Fergusson, 1849, p. 121). He considers visual contact as a substantial part of this relationship between architecture and the user. Fergusson (1849) asserts that the beauty of form and proportion is the most important part of the perceiving eye, since "the proportions of an apartment or building are easily observed to be beautiful" (p. 109). As a result of devoting importance to visuality, Fergusson (1849) considers the beauty of fitness to function with a negative attitude by saying that "the beauty of fitness may often induce us to forego this (beauty of form), or reconcile us to the want of it, it is one of the most important elements in architectural excellence, and a harmony which even the most uninstructed can perceive" (p. 109).

This indicates that he does not neglect the acquisition of an aesthetic value through being fit for function but since, according to him, apparent form "is one of the most important elements in architectural excellence," being fit gets demoted to a lesser status. The expression of architecture, its "real voice," is not its practical functionality, it is the painting and sculpture that it has (de Zurko, 1957a, p. 143).

The ideas of Ruskin were also contemplated by William Morris (1834-96). He was concerned with how art and architecture is practiced in his days and referred to them as "slavery and falsehood" and wanted to assert a new style (de Zurko, 1957a, p. 13). Therefore, considerations of morality can be seen in his implications for architecture. Morris (1878) advocates his ideas by saying that the new style must "give people pleasure in the things they must perforce use" and "give people pleasure in the things they must perforce make" (p. 5). This claim stresses both the creators' and users' morality which surely goes parallel with Ruskin. Yet, Morris's thought process is not solely similar to Ruskin's, but to Viollet-le-Duc's. Morris wanted to recognize the principles of Gothic architecture and utilize them to reach a new style that he wanted to achieve. "Take Gothic architecture by the hand and know it for what is was and what it is (…)," says Morris with a similar manner of analysis as Viollet-le-Duc and continues; "proceeding from such a tradition, one avows a principle of structure that evolves its forms in the spirit of truthfulness, following the conditions of use, material and construction" (Zevi, 1950, as cited in de Zurko, 1957a, p. 13). However, even though he praises looking into Medieval architecture, considering the "conditions of use" and achieving a new style just as Viollet-le-Duc, the resulting works may not be very indicative of these ideas (Kruft, 1994, p. 336). Morris signifies the importance and expression of social structure in architecture but he directly employs the Medieval vocabulary of forms as how they were in the past (Kruft, 1994, p. 337).

The Red House (1860) that Morris designed with his friend Philip Webb (1831-1915) is a product of his ideas (see Figure 3.11). Both Morris and Webb thought that a house, "the place of home life," should have the same value and status as a work of public architecture, but simultaneously it should be designed with simplicity and "devoid of monumentality" (Postiglione, 2004, p. 276). They were concerned over the integration of the building both into the site and the local culture through its form which is aimed to be achieved through the sensitive site layout and use of local materials alongside a

"profound respect for the traditional building methods" (Frampton, 1992, p. 43). It has been claimed by Muthesius (1979, as cited in Cooper, 2006) as the "first private house of the new artistic culture, the first house to be conceived and built as a unified whole inside and out, the very first example in the history of modern house" (p. 210). According to him, its significance is achieved through its "use of form" as well as "material, color and mass" (Muthesius, 1979, as cited in Cooper, 2006, p. 210). It has been reckoned as one of the monuments or shrines of the early modern movement, however, sometimes it has also been considered as a piece of Medieval architecture (Mallgrave, 2005, p. 172). The house has "elements and motifs from the past" which was considered "suitable" for a such program of a house (Pevsner, 1972, p. 273). Pevsner (1972) says that the functional reasons were behind the choices made in the design such as "reliving arches are more effective if pointed" (p. 273). However, the meaning behind "effectiveness" remains undisclosed, so it is unclear if it's aimed to be effective towards users' senses, possessing certain values, or towards structural benefits. Furthermore, Pevsner (1974) articulates the qualities of the Red House by saying;

> Red House as a whole is a building of surprisingly independent character, solid and spacious looking and yet not in the least pretentious. This is perhaps its most important feature. The architect does not imitate palaces. In designing he thinks of a wealthy middle class. He shows the red brick of the façades without covering it plaster as Neo-Gothic rules prescribed, and takes the outside appearance of the house as an expression of inside requirements without attempting a grand and useless symmetry. (Pevsner, 1974, pp. 58-9)

What should be noted here is that Pevsner does not refer to it as a work of architecture. According to him, it's a mere building that has a Gothic appearance as well as attempts of going beyond the principles of the Gothic Revival era.

The house has an L shape plan, creating a two-wing structure that consists of accommodation and leisure areas such as dining rooms, studios, drawing rooms, bedrooms, garden, etc. (Fiederer, 2017, par. 6) (see Figure 3.12). Even though the house has elements from the past that bring their context to the present day, it is also criticized for its uncomfortable living conditions and its sustainability (Fiederer, 2017). The orientation of the house results in all principal rooms being directed towards the north, leaving them cold in every season, as well as kitchen and storage areas facing south which results in high temperatures in the cellar (Fiederer, 2017, par.

9). It surely becomes a topic of discussion; which "functionality" should be concerned about in such a program? Is it about the "effectiveness" of symbolic function that possesses the values of society and being relatable to users or the comfortable living conditions in a "place of home life"? Furthermore, it has been mentioned that Morris considered architecture as the reflection of a "healthy" society (Kruft, 1994, p. 337). However, it should be questioned whether or not leaving areas that require heat in the hands of indirect northern sunlight is a "healthy" choice. If architecture as a whole, both as an act of design and with its products, is a reflection of society, then did Morris and Webb try to imply that their society is uncomfortable to live in or not a sustainable one? If, of course, lacking sustainability were to be considered as uncomfortable. If not, then wouldn't it limit the "reflection" and "expression" of society to what is apparent and to non-practical concepts? Following the variety of considerations that took place in the history of architecture over the aspect of functionality, the coexistence of its purpose and effectiveness, both practical and symbolic, is a matter of investigation and questioning. When architects initially utilize the term "function" in a general sense and then focus either only to the physical realm or the symbolic values that are linked to the past, they leave the other invulnerable to controversy.

Figure 3. 11 Red House (Postiglione, 2004)

Figure 3. 12 Floor Plans of Red House (Langer, 2016)

It is possible to see the consideration of such dimensions of functionality in architectural design with Calvert Vaux (1824-95). Vaux (1864) clearly states that "the art of building faithfully portrays the social history of the people to whose needs it ministers" but continues to indicate that the "principles of action, perception, convictions, habits of thoughts, and customs are the directors of all architectural design" (pp. 32-3). In his "Villas and Cottages," he explores American architecture and how society understands it. This is also accompanied by the impact that the economy has over the "good architecture" by discussing whether or not America is a "dollar-worshiping country" or a "dollar-making country" (Vaux, 1864, pp. 27, 32). Through these discussions over the economical factor in architectural design, Vaux merges the ideas of "portraying the society" and inexpensive "good" architecture. He goes;

> Indeed a simple, well-planned structure costs less to execute, for the accommodation obtained, than an ill-planned one; and the fact of its being agreeable and effective, or otherwise, does not depend on any ornament that may be superadded to the useful and necessary forms of which it is composed, but on the arrangement of those forms themselves, so that they may balance each other and suggest the pleasant ideas of harmonious proportion, fitness, and agreeable variety to the eye, and through the eye to the mind. (Vaux, 1864, p. 27)

This indicates that fitness in architecture automatically results in a low cost of expenses. Furthermore, this is seen as an aesthetic quality on its own which he also

includes the social factor in architecture; "a refined propriety and simple, inexpensive grace ought habitually to be the distinctive marks of every habitation in which a free American dwells" (Vaux, 1864, p. 48). Kruft (1994) elaborates this as the "rejection of the adaptation of historical styles for American architecture" as it goes back to the "link" that has been elaborated with previous architects, which is now "broken" (p. 354).

The 39 houses that he featured in his book are the embodiment of these concepts. "Every residence intended to be satisfactory," says Vaux (1864) and summarizes; "must be comfortably planned, pleasantly designed, and soundly constructed" (pp. 52-3). Even though neither the concepts of Vitruvius nor his name is uttered in his book, it may be possible to consider his idea as an echo of Vitruvian concepts. Vaux sustains these principles by giving the utmost importance to the "general distribution and detailed arrangement" of the architectural program, which is "the plan" (Vaux, 1864, p. 53). Through the design of the plan, conditions of comfort and firmness are acquired. However, the factor of society, economy, simplicity, a sound, comfortable plan, etc., are not the only concepts that Vaux views architecture through. Vaux (1864) also considers the notion of "character and expression" (p. 82). These terms were used in their respective historical context; *caractère* and *architecture parlante* (Kruft, 1994, p. 355). The stress over these concepts is most evident when he argues over the designs of doors and doorframes. An entrance, according to Vaux (1864), should claim the notice of the visitor to express its purpose (p. 82). Yet, the "purpose" is not confined to being a vertical plane that swings open. The door is also charged with the function of expressing the purpose of the building; being a shelter (Vaux, 1864, p. 83). What is remarkable is that he does not rely on ornaments or *ornamental constructions*. Such *caractère* is achieved through the practical elements that have the physical function of contributing to the building by making it a shelter. Going over ten different door concept designs, he states that "we need something that shall indicate the protection from the weather" as well as give "light and shade" (Vaux, 1864, p. 83). His proposition for a such function is to design hoods and eaves over the doors to protect them from the weather conditions (Vaux, 1864, pp. 83-5). This "need" for the "indication" of the protection does not enhance the protective quality of the eaves. If it were to enhance anything at all, it is possible to claim that it would be the sense of

shelter. His attempts are the direct implication of the form expressing its function as it is; preventing rain and sunlight from reaching the entrance.

These eaves and hoods function the same way as the ones which are located on the roof of buildings, but the ones over the doors in Vaux's designs are adapted to their locations. They are either curved or implemented in a way to cover the top of the doorway which does not result in their impracticality but creates a unity with the door. Both eaves, the ones on the roof and the ones at the top of the doorway, are expressive of their function even though they have different scales and proportions. The reason that enables such adaptation of form to function in each location is the absence of laws of proportions or any other rules on designing the form of an eave.

This idea of form adapting to physical function is also discussed through the animal kingdom. Such stress can be seen with Horatio Greenough (1805-52) who elaborated on the adaptation of form to function over the animal variety. Greenough (1947) says that "through all the varieties of beast and bird, of fish and insect, are we not as forcibly struck by their variety as by their beauty? There is no arbitrary law of proportion" (pp. 57-8). The foundation of his idea is the difference of proportions and forms that can be observed in a variety of animals such as the neck of the swan and that of the eagle even though they still "charm the eye and satisfy the reason" (Greenough, 1947, p. 58). It is possible to say that that charm to the eye can be linked to the apparent form, yet the satisfaction of the reason is the adaptation and fitness of form to the "function". The structures of these living creatures are developed as a result of their parts adapted to their function to generate the overall function of the whole; it is the "parts to the whole, of the whole to the function" (Greenough, 1947, p. 121). The reason why Greenough stresses the forms of living creatures is that he thinks that "the developments of structure in the animal kingdom are worthy of all our attention if we would arrive at sound principles in building" (Greenough, 1947, p. 117).

Furthermore, he expands his understanding when he considers the admiration towards "organs of destruction" which both includes parts of the living creatures that can inflict damage as well as the items that have been created by human intelligence to deal damage (Greenough, 1947, p. 60).

There is majesty in the royal paw of the lion, music in the motion of the brindled tiger; we accord our praise to the sword and the dagger, and shudder our approval of the frightful aptitude of the ghastly guillotine. Conceiving destruction to be a normal element of the system of nature equally with production, we have used the word beauty in connection with it. (Greenough, 1947, p. 60)

Devoting the value of beauty to a non-positive way of functioning of a destruction tool such as killing animals and people, is a topic of discussion. It is possible to mention the moral approach that Ruskin and Morris had when they considered the happiness of both the creator and the observer. Also, reaching beyond them, Hume (1978) claimed that beauty is derived from the fitness for the purpose but "to which they are destin'd" (p. 364). Yet, he elaborates that this purpose is the "tendency to produce an end that is agreeable" which implies the idea that purpose must be a moral one (Hume, 1978, p. 577). Accordingly, objects that "lead away from human happiness such as torture devices" is not included in Hume's understanding of the emergence of beauty from what is fit to the intended use since the intention is not considered as a happy one (Parsons & Carlson, 2008, p. 9). These arguments indicate that there are moral considerations for the "intended use" to some extent.

When considering the expression of the function, Greenough eliminates the ornamentation from it. When exploring the form-function relation of the human frame, Greenough (1947) asks; "where is the ornament of this frame?" (p. 120). This is a clear indication that when forms are determined by their function, they do not require the addition of ornament to be sustained and appreciated. He also elaborates such claim over chairs;

(…) beauty has been effected, first, by strict adaptation of forms to functions, second, by the gradual elimination of all that is irrelevant and impertinent. The old chairs were formidable by their weight, puzzled you by their carving, and often contained too much else to contain convenience and comfort. The most beautiful chairs invite you by a promise of ease, and they keep that promise; they bear neither flowers nor dragons, nor idle displays of the turner's caprice. By keeping within their province they are able to fill it well. (Greenough, 1947, p. 122)

First of all, he is aware that, without ornament, there is the discussion of "nakedness," however, he overcomes this argument by claiming that "in nakedness I behold the majesty of the essential instead of the trappings of pretension" (Greenough, 1947, p.

75). Second, not only does he considers ornaments as unnecessary, but Greenough also states that they can harm the object itself as can be seen above. Third, the "most beautiful" one, which has no ornaments, also possesses a promise to the user about its function. It is about having a form adapted to the function and expressing it to the observers without contaminating it with unnecessary additions for their utilization. As Greenough (1947) summarizes it; "beauty as the promise of Function; Action as the presence of Function; Character as the record of Function" (p. 71). According to Greenough, this "promise" is acquired beforehand utilization which means that beauty does not solely emerge from being fit for the function but also from looking fit for the function. After all, if it were limited to just being fit for function, its utilization, or "action" as he calls it, would also have to be necessary for it to be appreciated because how else can a user determine if it is indeed fit for the function? The answer is the expression of function which liberates the recognition and appreciation of fitness being trapped to utilization. Through this expression, the notion of character which can also be freely exchanged with the term beauty, the form gives its promise of being fit for function. After all, "the connection and order of parts, juxtaposed for convenience, cannot fail to speak of their relation and uses" (Greenough, 1947, p. 62).

Within the same context, just as how he elaborated his ideas over the living creatures and furniture, Greenough also indicates the fitness of naval vessels for their function. "Observe a ship at sea!," says Greenough (1947) and continues;

> Mark the majestic form of her hull as she rushes through the water, observe the graceful bend of her body, the gentle transition from round to flat, the grasp of her keel, the leap of her bows, the symmetry and rich tracery of her spars and rigging, and those grand wind muscles, her sails. Behold an organization second only to that of an animal, obedient as the horse, swift as the stag, and bearing the burden of a thousand camels from pole to pole. (Greenough, 1947, pp. 60-1)

It is very similar to how Ruskin described the naval vessels' ability to "breast a wave and break it" in his Stones of Venice, as investigated above. However, Ruskin wrote such descriptions in his "Stones of Venice" published in 1851, whereas Greenough indicated the aesthetic value of a naval vessel's form adapted to its function in his "American Architecture" published in 1843. For both of these architects, naval vessels do not carry a spiritual or cultural meaning to be uttered in their examples. But it is

their form "determined simply and economically by the function it has to fulfill" (Mallgrave, 2006, p. 452).

He expands to architecture by admiring naval vessels, just as how he did with forms of living creatures; "we carry into our civil architecture the responsibilities that weigh upon our shipbuilding" (Greenough, 1947, p. 61). Through this idea, Greenough (1947) utters a very unique suggestion for the works of architecture; "they may be called machines" (p. 65). As can be seen from the naval vessel example, the fitting organization is substantial for a machine to work. Furthermore, machines do not require ornaments to function, let alone express their function. In their case, what is apparent is what is practically functional. Greenough's theories over meaningless ornamentation, the form adapting to function, and referring to works of architecture as machines reached beyond his timeline into the future. These theories also did not lose their foundation and origin when they got expanded on by the following architects.

It is possible to see further attempts by architects to explore the form-function relation on living creatures. Louis Henry Sullivan (1856-1924) noted that the form expressed the function, for instance, "the form, bird, tells us of the function, bird; the form, eagle, is the function, eagle, made visible; the form, beak of that eagle, the function, beak of that eagle" (Sullivan, 1918a, p. 43). It has been argued that the forms of living creatures were adapted to and expressed their function. Yet, Sullivan claims that the form was not confined to expressing the function, but the function "created" and "organized" the form (Sullivan, 1956, p. 290). The aspect of function is still before the consideration of form, but the latter is the direct creation of the former, which results in the expression of the function. Through contemplating the living creatures, he formulated an idea; that "form follows function," which suggested that forms would "grow out naturally out of the needs and express them" (Sullivan, 1956, p. 258).

Through such a mindset, Sullivan wanted to create an architecture that fitted to its functions. According to him, the understanding of "fitness" is based on "well-defined utilitarian needs" which prioritize practical demands of utility in the planning and design process (Sullivan, 1956, p. 257). However, these needs do not include technical or constructional aspects; thus, Sullivan's concern was to utilize the architectural form to express human functions and needs, not structural laws (Kruft, 1994, p. 357). Being focused to serve human needs was paramount in his idea, so, Sullivan (1956) claimed

that "no architectural dictum, or tradition, or superstition, or habit, should stand in the way" (p. 257). This was a stand that he took against the styles that existed throughout the history of architecture.

In his "Kindergarten Chats," Sullivan (1918a) chats with a young architect and tries to explain how can a form follow the function and express it with a case of a hotel, or "an hotel" as he calls it (p. 27). When the young architect claimed that the building is a department store, not a hotel, with the reasoning of it displaying merchandise on the lower floors, Sullivan (1918a), asserted that if there was an intention to express the function of a department store, the masonry of the building "would be reduced to a minimum, and there would be an expanse of glass for light and display" (p. 27). This dialog shows how the form can express the function of a department store has been thought through the masonry of the building. With a similar mindset Sullivan (1918a) also responds to the young architect who considered the upper floors as offices; "were it an office building, it would suggest that function. There would be that regular and equable spacing of windows, that general suggestion of business and business housing, which would be unmistakable" (p. 27). However, in his dialogs, he does not specify how can a form express the function of a hotel, he only opposes what is being claimed and makes a suggestion as a possible case of expression for those claims.

First of all, according to Sullivan, the form has to express the overall purpose of the building even if a part of it is dedicated to another function. Second, this expression is done through the tangible form of the building which is dedicated to the specific functions to take place within; not through displaying what takes place inside but by giving an appropriate form for it to be executed. Third and most importantly, such expression is comprehended through visual perception. This can also be observed when Sullivan (1918a) suggests "look at the building with your own eyes" for the expression to be understood (p. 27). According to him, the expression, as "the statement of its purpose," and its "directness" is obtained visually (Sullivan, 1918a, p. 40).

However, such a mindset can be a topic to discuss when Sullivan also considers social factors as a part of the functionality. Similarly to how Greenough considered American life, Sullivan (1918a) also claimed that democracy, as a function, "is seeking a certain form of expression, democratic architecture" and this form "will mean, if it ever

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succeeds in meaning anything, American life" (pp. 44, 99). A function is seeking a form to express itself and possess a meaning of a social structure. If this idea is considered alongside the form that expresses utilitarian needs, it surely expands beyond practicality. After all, the form wasn't confined to practicality, but Sullivan only prioritized it, as mentioned above. Sullivan mentioned that practical expression was able to be comprehended via visual perception. So, how come an expression of social structure can be comprehended? The answer can be sought within his statement over his communication with architecture; "buildings had come to speak to Louis Sullivan in their many jargons. Some said vile things, some said prudent things, some said pompous things, but none said noble things" (Sullivan, 1956, p. 117). Kruft (1994) claims that this claim recalls the notion of *architecture parlante* (p. 358).

The concept of architecture speaking to the minds of the spectators is not confined to any realm or design strategy. As Sullivan (1918a) puts it; "behind every form we see there is a vital something or other which we do not see, yet which makes itself visible to us in that very form" (p. 46). Throughout history, as investigated in this section, there wasn't any predetermined proper, usual, or common way to express the function. Furthermore, Blake (1976) claims that his dictum "form follows function" has been one of the most misunderstood aesthetic principles of all time because what Sullivan "meant was not, or not only, that form must grow out of function, but that form, beautiful form, could only be created after functional expression had been satisfied" (p. 283).

Conveying what is intended to be conveyed in architecture varied from practical function to symbolic values and with the addition or removal of ornamentation. Sullivan (1918b) begins his essay "Ornament in Architecture" by claiming that buildings that are "devoid of ornament, may convey a noble and dignified sentiment by virtue of mass and proportion" (p. 187). Sullivan (1918b) follows it by saying that "it would be greatly for our aesthetic good if we should refrain entirely from the use of ornament for a period of years, in order that our thought might concentrate acutely upon the production of buildings well-formed and comely in the nude" (p. 187). Considering his suggestions over how a department store or an office building would be formed in accordance with its function, ornamentation was not included. The fact that a building is recognized as naked when it is unadorned indicates the influence of

the ideas in history that acknowledged ornamentation as the building's clothing. However, even though Sullivan suggested taking a break from the implementation of ornamentation, he did not consider it harmful (Kruft, 1994, p. 359). The impact that ornamentation has was still in question and Sullivan (1918b) asserted;

> We should thus perforce eschew many undesirable things, and learn by contrast how effective it is to think in a natural, vigorous and wholesome way. This step taken, we might safely inquire to what extent a decorative application of ornament would enhance the beauty of our structures, what new charm it would give them. (p. 187)

When approaching a design with a utilitarian mindset over the practical requirement, the function that the ornament has becomes a topic of argument. Serving merely to "delight the eye" does not relate to practical needs, so it is argued that "it must articulate the structure, symbolize or describe the function of a building, or serve some useful purpose" (de Zurko, 1957a, p. 4). If it were to be included in the form of the building, Sullivan stresses that it should "grow out" from the form, which should then express the function (Kruft, 1994, p. 359). However, similar to how the expression of social structure, the expression of function via ornament also reaches beyond practical utilities. Sullivan practiced this idea on tall office buildings and high rises. As quoted above, his suggestion for the form of an office building was about the "spacing of windows" and over the masonry form of the building. Furthermore, the design of tall buildings was also aimed at them expressing their height, for "structural symbolism" (Madden, 1995, p. 303). Yet, with the addition of ornament to high-rise office buildings, functions that are expressed also included commercial functions (Siry, 1996, p. 25). Such a function can also be interpreted as an "emotional appeal to the senses" because an appealing structure for a business is also a benefit for the occupying business as an attraction (Leslie, 2010, p. 83). The idea was to consider the form as an "invitation to look closely for hidden delights" (Larson, 1987, p. 44). The Wainwright Building (1890-1891) in St. Louis and the Guaranty Building (1895-1896) in Buffalo are indicators of such an approach (see Figures 3.13, 3.14). Moreover, the ornamental ideal is also present within the interiors of the buildings, which "harmonizes with the exterior of the building" (Siry, 1996, p. 30). The overall idea was not to present an attractive façade, detached from the functions that take place in the interior but to consider spatial usage, methods of construction, and fabrication of surfaces all together and design accordingly (Siry, 1996, p. 30). It is about devoting an "expression to a

kind of building, the high rise office, that carried with it no symbols more meaningful than the stacking of anonymous work cell" (Larson, 1987, p. 42). Even though the work cell is "anonymous," the function that takes place within is apparent, and, for Sullivan, the purpose of a work of architecture is to both serve fittingly for that function which also results in its expression.

Figure 3. 13 The Wainwright Building (Langholz, 2013)

Figure 3. 14 The Guaranty Building (Nemeskeri, 2011)

Discussions over ornament expressing a certain function are not unique to Sullivan, as investigated in this chapter. Fergusson, for example, explored the idea of ornamental construction, which were to express the structural elements in the façade. The ideas over ornamentation and the expression of the function through form did not have a stable and sound definition and understanding. As a friend of Sullivan, John Wellborn Root (1850-91) stressed the possible confusion between apparent structural elements and ornamental implementations. Root (1967) claims that the "confusion is greatest in the use of structural features to serve the purpose of decorative, of decorative features to perform the functions of structural" which surely opposes the ideas of Fergusson (p. 17). After all, if there were to be confusion, how else can it express the intended function properly? This idea suggests that ornament should not conceal the "elementary and essential features" and it cannot replace the "vital parts of the structure" (Root, 1967, p. 17). If concealing essential features were to be considered as a "mask" it becomes an echo of Ruskin's ideas. "It is the greatest of architectural crimes," says Root (1967) and continues; "to use a great column in a large building for any purpose than primarily to bear loads" (p. 17). Root was not solely stressing over the use of architectural elements as they are but also supportive of expressing its essential values, which included the function and the purpose of the building. Ornaments not only shouldn't conceal anything but also should not "assume any bogus functions" (Kruft, 1994, p. 361). Root's (1988, as cited in Kruft, 1994) claim goes as; "as far as material conditions permit it to be possible, a building designated for a particular purpose should express that purpose in every part (…) The force with which that function is expressed measures its value as a work of art" (p. 361). Similar to Sullivan, and many others cited in this chapter, Root claimed that the functionality of a work of architecture, which the form should express, varied from social and business life to climatic conditions (Kruft, 1994, p. 362).

In this act of expression, the function of ornamentation was considered as something that should be stayed away from, unnecessary, and came to a point of naming it as a crime when it conceals what is essential in architecture. Through the discussions over the form-function relation in architecture, the function of ornamentation slowly became a concept that lost its dominance. The property of ornamentation having a relation with the social and cultural values, the effort put in by its creator, it's supposed attractiveness that appeals to spectators, and the expression of the function that takes

place within the building that it is applied to was started to be questioned. Thus, its contribution to the fitness of a work of architecture was started to be sustained through its absence. These discussions with previous architects resulted in ornamentation being called an absolute crime with no exception. The architect who meant the application of ornament is an act of crime with the keenest attitude is Adolf Loos (1870-1933). Loos did not utter the phrase as directly as Root but presented a more solid background for his reasoning. Loos (1908) stressed that ornament is no longer linked with the culture itself as well as its expression of it; "the ornament that is manufactured today has no connection with us, has absolutely no human connections, no connection with the world order. It is not capable of developing" (Loos, 1908, p. 22). As can be understood from this quote of his, the development level of culture is heavily influential in the application of ornamentation. "The lower the culture, the more apparent the ornament," says Loos (1898) and continues; "as culture advances, it excludes object after object from being decorated with ornaments" (par. 14). Even though the lower culture ornaments their objects, it would still be the expression of their "undeveloped" culture, for architects who consider ornament as an expression of form, just as how its absence is for Loos's developed modern ideal. And when that modern man tattoos himself he "is either a criminal or a degenerate" (Loos, 1908, p. 19). Furthermore, his perception of ornamentation is not solely focused on its apparent properties. The matter that he also stressed, which is possible to consider its similarity with Ruskin, is the moral approach to labor and the utilization of material. Loos (1908) claimed that the "worker's time, the material used, are wasted capital" (par. 16). His ideas on this wasteful effort can be expended as; "invariably entailed a punitive form of craft slavery that could only be justified for those to whom the highest achievements of bourgeois culture were inaccessible for those craftsmen who could only find their aesthetic fulfillment in the spontaneous creation of ornament" (Frampton, 1992, p. 91).

Loos also was an architect who praised the practical functionality of an object more than the adornment of its surface. According to him, the beauty of a practical object depended on the degree of its practical value (Kruft, 1994, p. 366). Fitness for purpose is sustained through sole practicality, not by looks or what is apparent. However, this should not be understood as if Loos didn't consider how certain spaces look. "A room must look comfortable, a house must look habitable," says Loos (1909, as cited in Kruft, 1994) and continues; "the law courts must appear like a threatening gesture to

a secret vice. The bank building must say: Here is your money, safe and sound in the hands of honest folk" (p. 364). First of all, this statement from him signifies the importance of looking fit on top of being fit. The examples that he gave could have already been comfortable, habitable, or trustworthy but those are not enough; they also *must* look so. Second, the last scenario that he presented on how the valuables of users must be safe "in the hands of honest folk" suggests a power that architecture has; a power that also expresses the "function" of the employee. Them being honest and trustworthy can be expressed by the form of the structure that they inhabit and work in. Third, just as how also Kruft (1994) states, these thoughts resonate with the 18th century notion of *architecture parlante* by telling the observer about the measurable and non-measurable attributes (p. 364).

With each architect contributing to the theory of architecture, concepts and how they relate to intellects who can comprehend them expanded more and more. It became possible to see how some influenced those who followed, echoed their ideas as well as provided a foundation for future ideas to be built on. William Richard Lethaby (1857-1931) is one of many who got influenced by the theoretical work that has been put out by those who came before him such as Sullivan and Loos. Within the same context, Lethaby (1939) claimed;

> We must remember that beauty may be unadorned, and it is possible that ornamentation, which arises in such arts as tattooing, belongs to the infancy of the world, and it may be that it will disappear from our architecture as it has from our machinery. (p. 231)

It is possible to trace the background of the ideas asserted in this statement. The idea that suggests it is possible for beauty to emerge even in the absence of adornment can be traced back to Sullivan and Greenough (Kruft, 1994, p. 339). Following this, the utterance of the term tattoo is also a reference to the ideas of Loos presented in his "Ornament and Crime" essay (Kruft, 1994, p. 339).

As explored in this chapter up until this point, the way how living creatures and machines work influenced and guided the ideas of architects. With Lethaby, referring to machines with the phrase "as it has disappeared from our machinery" is a clear indication of this supposed inspiration. The constant enhancement of machinery is

considered as a valuable property to be learned from according to Lethaby. He goes as;

> Now if we could produce the best finished metal bed, the best tightly fitting, non-dust holding bookcase, the best and most effective coal-box, all at low average prices, is there not a probability that they would sell like the best cheap bicycle? (…) Such a bed or bookcase should be improved in its details as the bicycle has been improved. (Lethaby, 1922, p. 51)

Such an idea is not confined to daily life object which is proposed to be enhanced just as machines. Lethaby (1922) asserts that "we must aim at getting the small house as perfect as the bicycle" (p. 40). The bicycle does not need ornamentation on it to be "perfect," it is about practical functionality and being fit to it. Similarly, a work of architecture also has to be focused on its practical utility to be fit for its purpose. Lethaby's (1922) stress over the fitness of works of architecture goes from the sustainability of energy produced and wasted indoors to infrastructural considerations such as keeping the water pipes away from where they can freeze (p. 40). After all, if these weren't sustained in a machine it would malfunction and fail.

The close relationship between a work of architecture and a machine continued to be argued about. Similar thoughts can be observed from Hannes Meyer (1889-1954) claims that "planned in ideal and basic terms, our house will become a piece of machinery" (Meyer, 1980, as cited in Kruft, 1994, p. 386). He does not solely consider the practical utility of a machine when he refers to its correspondence in a work of architecture but also its non-practical causes. Meyer (1928, as cited in Kruft, 1994) argues that "the house of the future will become not only a machine for living in but a piece of biological apparatus for spiritual and physical needs (…) Building is merely organization, social, technical, economic and psychological organization" (pp. 386-7). Even though the space for living will respond to "spiritual and psychological needs" according to Meyer, he does not relate these "needs" with aesthetic or artistic values. "(…) building is a technical not an aesthetic process," says Meyer (1926) and continues; "the purposeful function of a building always contradicts artistic composition" (p. 3). It is possible to claim that the potential "purpose" of a building is not directed at aesthetics. The technical purpose was so substantial for him that he did not hold himself back from even presenting a formulation; "function times economy" (Meyer, 1926, p. 3). Through this statement, it can be questioned whether or not being

designed as a machine or whatever product that might emerge from such formulation would also satisfy social or psychological needs. In the engineering field, social or psychological factors do not affect how a machine's outputs work since it relies solely on its mechanical and practical functioning. When it comes to "engineering" the psychological and social factors of a work of architecture, the act of engineering and its calculations would require new definitions and expansions. After all, the energy intake and the work output by a machine can be calculated and predetermined accordingly but the effect of a cultural or social factor on a work of architecture may be interpreted differently by a user who does not reside within that specific society or culture. Therefore, it is possible to claim that the presence of the user and its *attitude* towards an architectural space should not be neglected when a work of architecture is being considered as a mechanical device. Because, accordingly to the analyses of the history of architectural theory, it is possible to claim that the user is the one; to who the form is expressed, who the architecture speaks, who utilizes, who owns the moral, social, and cultural values and who the beauty is promised to.

It is also possible to see city-scale designs where practical considerations were also in focus. The architect of a utopian city, Cité Industrielle (1901-17), Tony Garnier (1869-1948) assumed that the cities should be designed accordingly to "industrial considerations" for the ideal of "practical achievement" (Wiebenson, 1960, p. 17) (see Figure 3.15). This ideal of industrial and practical considerations can be observed upon examination of his planning. Cité Industrielle consists of a division between residential, public, and industrial areas which all have their section detached from the other but has an "ease of pedestrian access" to all of them (Mallgrave, 2005, p. 223). Considerations from the transportation and utility to the comfort conditions and sustainability indicate a design that has a focus on the utilization of the user. It may even be possible to claim that such planning recalls how a machine would be designed, but such an idea was not uttered directly by Garnier himself.

What is also remarkable in his Cité Industrielle is the use of concrete. As the new material industry advanced, discussions began to stress that this complex material would "answer all the building problems," which Garnier also admired in his utopian city (Wiebenson, 1960, p. 21). The idea was to achieve a simple structure that does not include ornaments, simplified building operations, and reduced costs (Kruft, 1994, p.

394). The utilization of concrete in such a way resulted in a simple, pure and clear expression of the form because "it will be totally independent of the construction" and remains simple by being unadorned and without molding (Garnier, 1917, as cited in Mallgrave, 2008, p. 124). Garnier also found the opportunity to practice his ideas in the physical world with the Stade de Gerland, also known as the Lyons Stadium (1912-1920), and the hospital Grange-Blanche (1913-1933) which all have similar "notable structural clarity" as the buildings in the Cité Industrielle (Mallgrave, 2005, p. 223) (see Figures 3.16, 3.17).
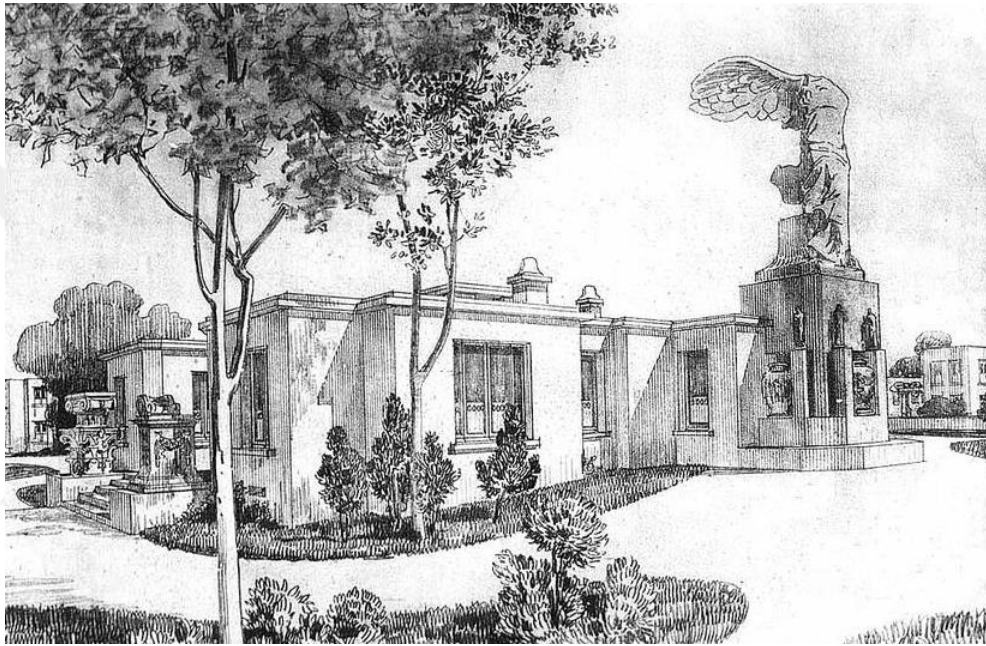

Figure 3. 15 Cité Industrielle (Kruft, 1994)

Figure 3. 16 Stade de Gerland (Franck, 2019)
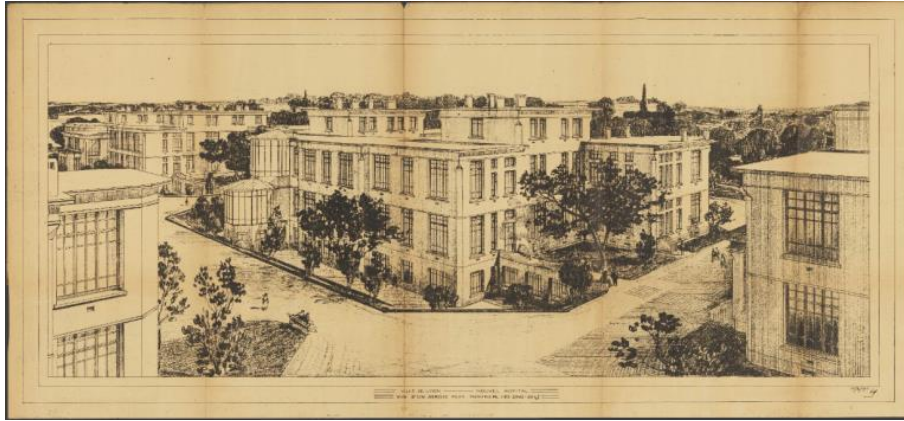
Figure 3. 17 Hospital Grange-Blanche (*Hospital Grange Blanche*, 2022)

3.5   New Dimensions of the Aesthetics in/of Architecture in the 20th Century

The advancement in industrialization promised a vast dimension of architectural theory for architects to explore. Through such "promise" it is possible to investigate a theory that also had a political property as Constructivism (Mallgrave, 2008, p. 169). Vladimir Tatlin (1885-1953) is considered as its founder and the designer of the earliest attempts to reflect the idea of this theory on architectural design; Monument to the Third International, also known as the Tatlin Tower (1919-20) (Mallgrave, 2005, p. 237) (see Figure 3.18). With "materials, volume and construction" in its foundation, industrialization enabled an opportunity to "uniting purely artistic forms with utilitarian intentions" (Tatlin et al., 1920, as cited in Mallgrave, 2008, p. 171). It is possible to explore this notion with the statements of Alexander Rodchenko (1891-1956), who is a substantial figure to investigate in Constructivism. He stresses three concepts to define this movement, "tectonics, facture, and construction," and his explanation of them are as follows;

> Tectonics for him relates to the socialist exploitation of the most recent materials and industrial techniques in the creation of utilitarian art; facture relates to the choice and manipulation (processing) of materials; construction is the "organizational function of constructivism" or the most efficient fabrication of the product possible. (Mallgrave, 2005, p. 237)

However, the "utilitarian needs" as well as considerations over the materials were also accompanied by the realization of a socialist utopia and the expression of their propaganda. Accordingly, the concepts even got mentioned as "the communist

expression of material construction" (Gan, 1922, as cited in Mallgrave, 2008, p. 173). Overall, as a product of the new industrial culture, the laws of utilization and material organization are "laid out in terms of ideological principles" (Kruft, 1994, p. 417). It is a matter of the political setting of a country and the functional aspect of architecture influencing and contributing to each other. Architectural design gains a source for its artistic turn, as well as becomes a platform of propaganda. Both of these aspects are being supported and brought to a new state through the material technology advanced with the industrial activity.

Figure 3. 18 Tatlin Tower (*Tatlin Tower*, 2022)

However, the political setting should not solely be considered an act of propaganda. Both the social and political structure had become an aspect that architecture had to adapt to. It is possible to consider the example of Brazil on this matter with the architect Oscar Niemeyer (1907-2012). Taking advantage of the reinforced concrete technology in the first half of the 20th century, Niemeyer realized concrete as an ideal means to achieve an architecture of plastic freedom and inventiveness rooted in Brazil's native traditions and "full exploitation of the potential of the local workforce" (Philippou, 2013, p. 9). The idea of plastic freedom is defined as "what makes an appeal to the imagination, to things that are new and beautiful" (Niemeyer, 1962, p. 137).

Accordingly, he claimed that "my work is not about 'form follows function', but 'form follows beauty'" (Philippou, 2013, p. 9). Following this, as mentioned, architecture is stressed that it should be adapted to the setting it has around it. Therefore, Niemeyer argues that plastic freedom in urban localities should be avoided "for preserving the unity and harmony of the overall plan by avoiding solutions that do not wholly fit into it" (Niemeyer, 1962, p. 137). Accordingly, his design of The Ministry of Education and Health building is considered as "a manifesto of the new architecture in Brazil" (see Figure 3.19). It is possible to consider it as a unity of his ideas, both new industrial materials and preserving harmony in the building.

Figure 3. 19 The Ministry of Education and Health (Bullrich, 1969)

The abilities of new materials and the possibilities that they enable utilized by the architects surely gathered attention on itself. Concrete's structural capabilities as well as its potential aesthetic values were also focused on by Auguste Perret (1874-1954). Furthermore, the use of concrete was both in its technological sense and its aesthetic values. Perret claimed his design for the garage in the Rue de Ponthieu as the "first attempt in the world to make reinforced concrete aesthetic" (Kruft, 1994, p. 395) (see Figure 3.20). However, the most remarkable thing about this structure was the apparent main frame of structural elements; horizontal and vertical load-bearing structural

elements was in plain sight (Abram, 1987, p. 87). The design of Perret can be stated as the clear composition of elements concerning simple geometries and details which were "held in check within the symmetry and regularity of the basic structural frames" (Britton, 2001, p. 178).
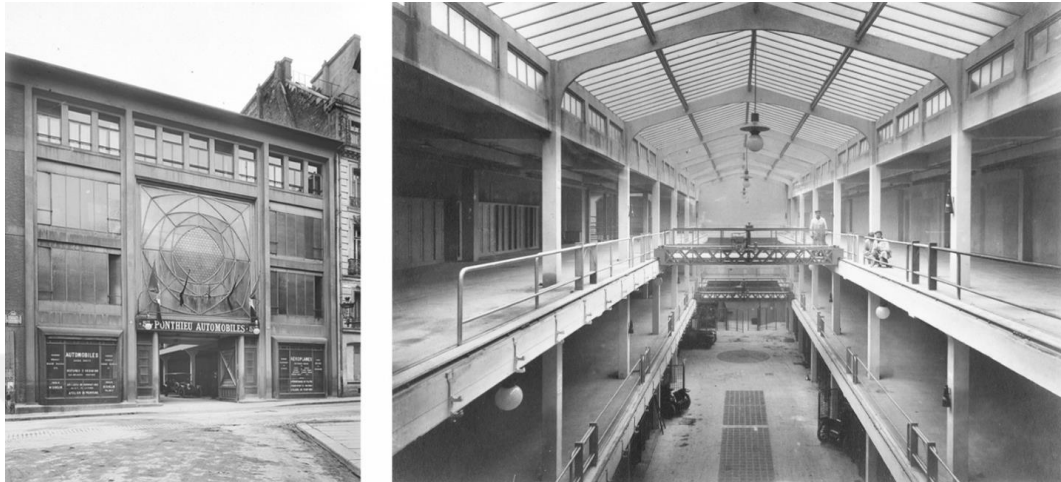
Figure 3. 20 Garage in Rue de Ponthieu (Smith, 2021)

The question of concrete aesthetics has been raised by Perret who practiced it as much as he can by exploring unique compositions that he can do with the material. However, Kruft (1994) claims that he did not propose any solutions or clear answers to the questions over such matters (p. 395). Those answers were about to be sought after by Charles-Edouard Jeanneret, also known as Le Corbusier (1887-1965), who worked in Perret's office when the garage building was being designed. The capabilities of concrete and the approach to the apparent main frame have been investigated and practiced by Le Corbusier extensively as well as the metaphor of machines in architectural design.

Le Corbusier, with the goal of rapid reconstruction of towns with mass production of buildings that were destroyed as a result of the war, developed a system of a building that consists of a structural skeleton composed of "horizontal slabs and pilotis"(columns), leaving the façade and internal areas to more "ad hoc infill" (Aureli, 2014, p. 153). As a result of such a system, Maison Dom-ino (1914) was born; a framework of standardized concrete structural elements, with pillars set back from the edge of slabs to enable a more free implementation of non-load-bearing walls (Kruft, 1994, p. 397) (see Figure 3.21). Architectural form is reduced to structural elements.

Through this architecture, the influence of Perret and the design of the garage building in the Rue de Ponthieu can be observed. Furthermore, such a design also enables a reduction in expenses, which is something important to consider in a setting of war, and can be understood as how "economy has conquered architectural form" (Aureli, 2014, p. 153). These aspects of design are also very similar to the ideas of Garnier when he was designing his Cité Industrielle; a method of construction that lowers the expenses while also expressing simplicity. Kruft (1994) considers this idealization of function to lead to their aestheticization which became the essence of Le Corbusier's doctrine (p. 397).
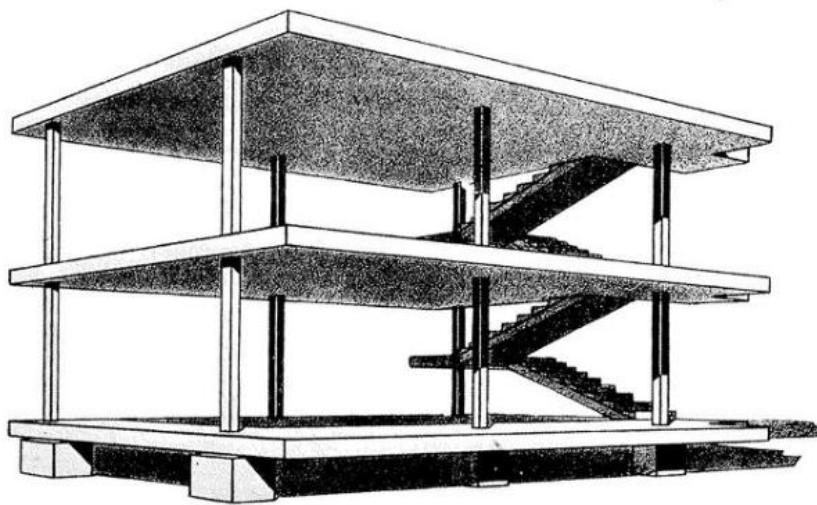
Figure 3. 21 Maison Dom-ino (Kruft, 1994)

Through these ideas, Le Corbusier suggests that the housing design and its construction should be "standardized and factory-produced" just in the same way how, for example, automobiles are assembled and produced in a factory (Mallgrave, 2008, p. 187). Similarly to Greenough, Lethaby, and Meyer, Le Corbusier was also considering aesthetics of engineering and architecture simultaneously, even though Mallgrave (2008) devotes the originality and uniqueness of this idea to Le Corbusier (p. 186). Le Corbusier (1986) claimed that these two things "march together and follow one from the other" (p. 1). In the first chapter of his book "Towards a New Architecture," he praises the way how "liners", "airplanes", and "automobiles" regulate their forms through their problems (Le Corbusier, 1986, pp. 3-4). It is possible to claim that this chapter, especially by featuring liners, seems closer to the ideas of Greenough over naval vessels and may even go back to the way how Ruskin praises

ships. Furthermore, similar to their analysis of the form-function relation in living creatures, Le Corbusier (1986), but from the engineering field of view, also indicates that "in modern mechanical engineering, forms seem to be developed mainly in accordance with function" (Le Corbusier, 1986, p. vi). By considering these machines, Le Corbusier (1986) creates a direct link between architecture and engineering by claiming; "the house is a machine for living" (p. 4).

The purpose of machines is to reduce human energy output and assist them in their endeavors and their performance is determined according to their convenience (Dunham, 2014, pp. 152-3). Accordingly, Le Corbusier articulates that if the machine were to be considered as a work of architecture, before its expression and service to humanity, it has to be to bring to a level of consciousness; it has to contain philosophy and art (Colquhoun, 2005, p. 62). This idea can be observed from his claim;

> If we eliminate from our hearts and minds all dead concepts in regard to the house, and look at the question from a critical and objective point of view, we shall arrive at the "House-Machine," the mass-production house, healthy (and morally so too) and beautiful in the same way that the working tools and instruments which accompany our existence are beautiful. (Le Corbusier, 1986, pp. 6-7)

First of all, stating that the "House-Machine" is "beautiful in the same way that the working tools and instruments" can take the topic directly back to Socrates who also claimed that being fit for its use is how an aesthetic value emerges regardless of the thing possessing certain looks or meanings. Second, Mallgrave (2005) claims that Le Corbusier also embraced the machine metaphor precisely for its moral values (p. 256). De Zurko (1957a) claims that the reason for the moral value of the machine is its simplicity, efficiency, and its functional form (p.14). Furthermore, by suggesting the standardization of housing, Le Corbusier is enabling a more free utilization of the structure by the user. As mentioned within the context of Maison Dom-ino, reducing the architectural form to the structure leaves the rest in the hands of the users. The decisions taken over the structural system enabled an independent floorplan and a free façade (Turner, 1983, pp. 350, 357-8). After all, according to Le Corbusier, a plan is what gives the structure order and readability (Colquhoun, 2005, p. 73).

Le Corbusier expanded on this mindset and designated "five points of a new architecture" that he applied to his practice; supports (pilotis), roof gardens, free plan,

horizontal sliding windows, and free façade (Le Corbusier, 2002, pp. 99-100). According to Porro (2021), practical functionality resides in the foundation of these five points and considers them as the five aesthetic principles (p. 129). The application of these points can be vividly seen in his Villa Stein (1926-1928) and Villa Savoye (1928-1931) in Poissy (see Figures 3.22, 3.23). Structures that are designed relatively to these five points, especially with the horizontally stretching windows, resulted in possessing certain looks which are considered as a close resemblance to the machines, liners, airplanes, and automobiles, that Le Corbusier mentioned (Kruft, 1994, pp. 398-9).

Figure 3. 22 Villa Savoye (Leiva, 2007)

Figure 3. 23 Villa Stein (Emden, 2012)

The feedback obtained by delivering a structure designed according to these five points to the users can be observed clearly at Cité Frugès in Pessac (see Figure 3.24). These concrete and unadorned structures are designed for the accommodation of the factory workers who were initially dwelling in rural areas and did not share the same understanding of aesthetics as Le Corbusier (De Botton, 2010, p. 179). The users of these houses sought the same aesthetic values that they were possessing when they were living in their own rural houses; small windows, blinds, snap roofs, chimneys, wallpapers, and fences around the gardens (Colquhoun, 2005, p. 67). Accordingly, the users touched the structure and changed its appearance (see Figure 3.25). This resulting alteration of these structures should not be understood as if it goes against what Le Corbusier initially desired; it is the opposite. These users were also seeking the aesthetic qualities that they lack in their dwelling environment and attempting to sustain them, which may not have to be similar to the qualities of a modern architect (De Botton, 2010, p. 181). The modern architect, Le Corbusier in this case, presents a structure that is free-to-be-utilized as how the users like. Through this case, it is possible to claim that the plan and the façade are free because they are not bound to any limits or predetermined qualities that may go against what the users may seek. This indicates that rather than one following the other, the plan and façade are not bound to each other. On that note, Porro (2021) indicates that it should not be expected for Villa Savoye to express its function, it can be anything other than a house (p. 126). This is one of the results that occurred from producing structures with standardized elements and assembling them accordingly to the five points that were not influenced by cultural or social factors. This is how the architectural aesthetics of Le Corbusier achieves a universal value (Porro, 2021, p. 126).

However, not every building that Le Corbusier executed was representative of his five-point approach. In Ronchamp chapel, Le Corbusier questions his principles (see Figure 3.26). As Porro (2021) elaborates;

> He (Le Corbusier) has an emotional outburst and twits his architectural forms; pure form, pilotis, horizontally stretched windows are in crisis as well as the expression of it as a factory-made product. Enclosed volumes gets torn apart in certain places and creates a tension from interior to exterior. (p. 134)

Furthermore, Stirling (1956) also claims that this type of design can be considered as the "symbol of an ancient ritual" and therefore should not be considered within the modern movement principle (p. 161). These critical views of Le Corbusier must not blur his achievements in modern architecture. Although, as also Kruft (1994) indicates, the question of which his buildings are the clear demonstrations of his theories; whether he has been a dogmatic theorist or a practical architect that considers functional utilities who influenced the course of architecture in the twentieth century (p. 402).
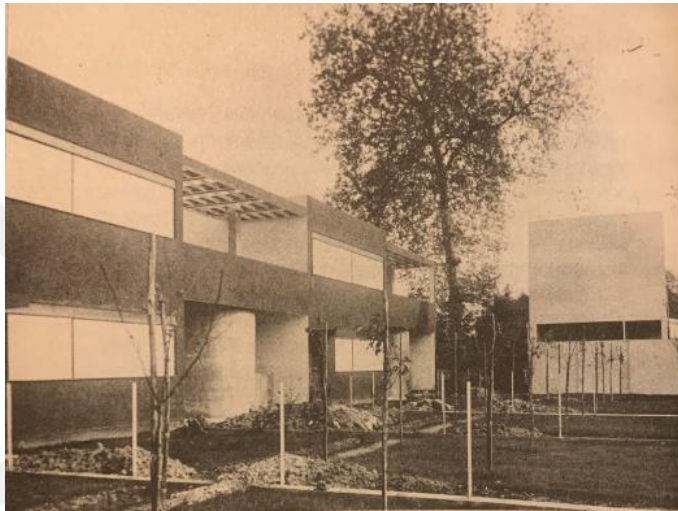
Figure 3. 24 Initial design of Cité Frugès (De Botton, 2010)

Figure 3. 25 Cité Frugès after the inhabitation of its users (De Botton, 2010)

Figure 3. 26 Ronchamp chapel (Medina, 2014)

As investigated in this chapter, architects who elaborated the notion of form following the function were either influenced by the form-function relation of living creatures or machines. The idea was to praise the convenience of function more than the perception of the form itself. Only when the practical functionality is sustained, is the form followed. With Sullivan, for example, the form was determined in accordance with the planning of the function that takes place within the space; thus, it was considered as the expression of the function, or at least he tried to do so. Just as with Le Corbusier and his five-point approach to designs, the form was not expected to express the function. As mentioned through the context of Villa Savoye, the form lacked the expression of the purpose of the building, even though the machines that he praised did possess a clear expression of their purpose. Although, with Ludwig Mies van der Rohe (1886-1969), the notion of "form follows function" evolved into its purest sense. Mies wrote, "form is not the aim of our work, but only the result. Form, by itself, does not exist. Form as an aim is formalism; and that we reject" (Johnson, 1947, pp. 183-4). The form had become the result of the design. The main conception was that form should not be the aim or destination to reach by bypassing the spatial requirements for the function to take place. Just as Mies van der Rohe (2002b) puts it; "I do not oppose form, but only form as a goal" (p. 102). The form, which resides subsequent to

function, is considered as the "crystallization of its inner structure" (Mies van der Rohe, 2002c, p. 155).

Parallel with the vision of Le Corbusier, Mies also indicated that the building industry requires revision. He demanded a new way of manufacturing new building materials as well as their assembly on the construction site (Conrads & Bullock, 2002, p. 81). "Our technology must and will succeed in inventing a building material that can be manufactured technologically and utilized industrially" says Mies van der Rohe (2002a) and follows it up with a far cry; "that is solid, weather-resistant, soundproof, and possessed of good insulating properties" (p. 81). According to Mies van der Rohe (2002e), these materials are "concrete, iron, glass" (p. 74). Through these materials, Mies van der Rohe manages to establish his doctrine in architecture. With the capabilities of concrete and iron, he manages to erect structures that have walls unbound from structural confinements. Mies van der Rohe (2002e) puts it as; "reinforced concrete buildings are by nature skeletal buildings. (…) A construction of girders that carry the weight, and walls that carry no weight. That is to say, buildings consisting of skin and bones" (p. 75). The phrase "skin and bones" surely goes back to the Masino Dom-ino of Le Corbusier. Accordingly, being able to reduce the form to the sufficient structural elements created the foundation of his guiding motto; "less is more" (Johnson, 1947, p. 49).

In Mies's case, the expression of function is when the content of the place within a space is explicitly displayed to the observer (Porro, 2021, p. 46). It is not an abstract way to express the function, but it establishes a direct visual link between the indoors and outdoors. After all, Mies considers architecture as which "frames the space" (Aureli, 2009, p. 16). Yet, his frame, as a result of the space, should not be considered as the enclosure of space. With Mies, it is possible to see a similar principle of Le Corbusier's "free plan" that Mies also considered. Both of these architects "freed" the interior planning from the structural confinements so they were able to present freedom of division whenever and wherever required to the user. This enabled them to achieve and sustain the fittingness of form to its function with ease. As Mies van der Rohe (1947) explains this principle;

> Today the factor of economy makes rationalization and standardization imperative for rental housing. On the other hand, the increased complexity of our requirements demands flexibility.

> The future will have to reckon with both. For this purpose skeleton construction is the most suitable system. It makes possible rationalized building methods and allows the interior to be freely divided. If we regard kitchens and bath rooms, because of their plumbing, as a fixed core, then all other space may be partitioned by means of movable walls. This should, I believe, satisfy all normal requirements. (p. 189)

It is possible to see the practice of such a design approach with the S. R. Crown Hall (1954-1956), initially dedicated to the IIT College of Architecture (see Figure 3.27). The ground floor consists of a large and unseparated free space, typical to Mies van der Rohe, surrounded by a glass frame and its dedicated function does not express via any sort of symbols or meanings (Porro, 2021, p. 98). Porro (2021) states that the building is designed in such a way that it will continue to exist and be convenient even after its functioning as an architectural school has disappeared and now left its presence to an "aesthetic function" (p. 98). Such ability to continue to exist unbound from what function takes place within space brings a new perspective to the concept of appropriateness. With such buildings, fitness for the intended use becomes a flexible notion. The intention changes throughout time, yet the structure is designed to adapt accordingly. Furthermore, the quality of being fit to changing intentions is sustained unbound by the designer who created that structure in the first place. The plan adapts to being fit for whatever forthcoming use and the structure achieves immortality by possessing the constant value of being fit.

The principle of free plan is not confined to indoor spaces and it does not consider the wall as just a vertical separator. As Johnson (1947) explains the significance of walls within that free plan; "instead of forming a closed volume, these independent walls, joined only by planes of glass, create a new ambiguous sensation of space. Indoors and outdoors are no longer easily defined; they flow into each other" (p. 30). This concept of "flowing space," generated by the independent walls, can be most clearly observed in the German Pavilion in Barcelona, also known as Barcelona Pavilion (1929) (see Figure 3.28). As Johnson (1947) puts it; "columns, walls, roofs are disposed of in such a way that space is channeled rather than confined, it is never stopped, but is allowed to flow continuously" (p. 58).

What is even more remarkable about Barcelona Pavilion is how it achieves fitness for its intended use. This structure is designed for the 1929 International Exposition in

Barcelona Spain to become "the face of German section" (Kroll, 2011, par. 2). While representing Germany in the exposition the pavilion does not exhibit anything, unlike other pavilions in the exhibition (Porro, 2021, pp. 56-7). As someone who guides himself with the motto of "less is more," if something were to be exhibited, the minimum number of stands or display cases were to be utilized to achieve the total effect (Johnson, 1947, p. 49). Furthermore, whenever possible, the material to be exhibited is applied in a way that shows how it would be if it were used in actual practice such as the walls of the glass exhibit are glass and those of the silk exhibit are silk (Johnson, 1947, p. 49). The same applies to Barcelona Pavilion. Rather than designing a space that holds posters, display cases, or easels to display what is to be exhibited, Mies designs the pavilion as if it were the display case itself. The furniture is placed within defined spaces similarly to how it would be in an actual scenario, which same goes for the travertine and marble walls that exhibit the material by themselves. The exhibition, as the intended purpose, achieves a unique way of being appropriate; rather than enabling a place for the function to take place, it functions as it is.

Figure 3. 27 S. R. Crown Hall (Zanni, 2016)

Figure 3. 28 German Pavilion in Barcelona (Glancey, 2014)

However, these principles also brought problems among them. In his Farnsworth House (1945-1951) (see Figure 3.29), Mies denied that the house should have any heating or cooling system or insect screens which made this structure in its rural setting "uninhabitable" both in summer and winter (Mallgrave, 2005, p. 332). Was that a structure not intended to be used through inhabitation? Or, it was but failed to be appropriate for it? Mallgrave (2005) puts it as; "a rigorous logical consistency was attained at the expense of the comfort of the client and user, who in this case eventually litigated the matter" (p. 332). Even though the Farnsworth House has been considered as "a clear and somewhat abstract expression of an architectural idea, the ultimate in skin-and-bones architecture, the ultimate in 'less is more,' the ultimate in objectivity and universality" it still affected the reputation of Mies (Blake, 1976, p. 234). Therefore, Mies gained the reputation of being "a visionary rather than a practical architect" (Johnson, 1947, p. 34). The quest for seeking a new way of building in architecture resulted in structures turning out to be unhabitable in certain cases. Another litigation case was about to occur against Le Corbusier by Madame Savoye. Due to the Villa Savoye having physical flaws and Le Corbusier responding to the outcries of the Savoye family by reminding them of the aesthetic value of the building rather than fixing the practical deficiencies, Madame Savoye considered it as "uninhabitable" and wanted to sue him but failed to do so because of the World War II outbreak (De Botton, 2010, pp. 73-4). These feedbacks from users further indicate

that the fitness for intended uses needs to correspond to something more than a design on paper and get judged by the user to even get devoted to the status of fitness.

Figure 3. 29 Farnsworth House(Schwartz, 2019)

Furthermore, with the new principles over the industrialization of building, Mies foresees that there can be discussions about the "loss of the meaning of building" (Conrads & Bullock, 2002, p. 123). His defense for such arguments was to speak of a "value-blind" process in architecture that excludes the meaning from the act of building so there wouldn't be a loss of something which didn't exist. Mies van der Rohe (2002d) explains the issue of value as;

> Let us accept the changed economic and social conditions as fact. All these things go their destined way, blind to values. (…) what matters is not 'what' but only 'how'. That we produce goods and by what means we manufacture them means the value of building. (p. 123)

When the constant change of social and economic values is considered, it would be possible to parallel their adaptation to their evolvement with the design principles of Mies.

The consideration of constantly evolving functional requirements and responding to them by enabling the work of architecture to also evolve accordingly can also be seen throughout the discourses of the Turkish architect Turgut Cansever (1921-2009).

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According to Cansever (2017), the lifespan of a structure can reach beyond its response to the foreseen requirements; thus, the form of a work of architecture cannot be determined only through its fittingness to specific functions (p. 47). It is possible to observe the practice of this idea in his Demir Holliday Village (1982) project in Bodrum, which also granted Cansever one of his three Aga Khan prizes (see Figure 3.30). The need for evolving requirements and responding to them accordingly is attempted to be achieved through the addition of structures within each private site when needed (Cansever, 2017, p. 47). This is not identical to how Crown Hall, for example, sustains functional fitness against the alteration of needs, but they are not so different in their core ideas. The concept of presenting a project that enables to build new structures accordingly to the new and upcoming needs originates from the social and cultural structure specific to the region. In Bodrum, it is claimed that when a member of a family gets married, a new house is constructed for his own family within the same site of the original family house (Cansever, 2017, p. 48). Accordingly, through the Demir Holiday Village project, Cansever sustains functional fitness both at practical as well as cultural levels.

Figure 3. 30 Demir Holiday Village (Akbülbül, 2021)

The concept of "house" is the most important element that regulates human relations in society, regardless of the conditions and the age (Cansever, 2017, p. 288). Furthermore, while physical relations are regulated, social relations are also regulated,

which influences the construction of further social structures. The concepts of personal space and territory, enabling social interaction, and the communicative power of architecture through cultural and symbolic values are investigated on the regulation ability of architecture (Shah & Kesan, 2007, p. 351). The history of architecture is filled with attempts that try to sustain individual-society relations. It is possible to consider the relation of a family and its members as similar but on a smaller scale.

It has been mentioned that with the industrial advancements in construction materials architects achieved a sort of freedom that can be utilized to transfer certain ideas to the physical world with ease. Architects utilized this freedom to liberate the elements of architecture from each other and utilize them in their intentions. Walls were no longer attached to columns or beams, windows were able to stretch as much as the architect desired, or the program required, and the roofs were no longer "left alone with the stars" (Le Corbusier, 2007, p. 89). Overall, the plan was freed. This freedom of plan resulted in the freedom of its users on how they utilize the space. That was what Mrs. Schroder was aiming for when she wanted a flexible house that would be able to "evolve over time in tandem with the changing needs of her family" (van Thoor, 2019, p. 7). Gerrit Rietveld (1888-1964) responded to her needs with his Schröder House (1924) in Utrecht (see Figure 3.31).

Figure 3. 31 Schröder House (Nelson, 2009)

Schröder House fulfilled his prescription similarly to how Crown Hall sustained fitness for its evolving use. With the main structure being reinforced concrete slabs and steel profiles, the notion of free-plan and free-façade can be seen (Sveiven, 2010, par. 12). By being liberated from the restrictions of load-bearing walls, the top floor, as the main living level, presented a "transformable plan" which is considered as "a dynamic architecture" (Frampton, 1992, p. 145). The dynamism is acquired through the portable walls that create flexible living areas according to the needs and desires of its occupants. Satler (1999) says that if architecture denies the reality of "the diversity of both occupants and their needs and wants", as the "essential components in the construction and interpretation of the form to be built," the depth of architecture cannot be achieved (p. 19). A work of architecture can still be functional, practicality vise, but may show no concern for individuals who inhabit and use it. After all, the occupants are unique and diverse subjects that utilize the structure both in its practical as well as non-practical sense. Satler (1999) follows his initial claim;

> Architecture's functional and aesthetic meaning is subjective and dynamic and passionately moves us to see and feel the absence of the third dimension-its depth. Depth, structurally and aesthetically is, in part, derived from individual perceptions of and interactions with it. Space devoid of depth is, deadening, if not dead, because it constrains all views but the dominant one regarding what "use", "beauty" or "comfort" can be. (p. 19)

The act of liberation in the design process, as emphasized above, is considered as a way to achieve this "depth". Such an idea can also be seen with Frank Lloyd Wright (1867-1959);

> With this concept of depth interpenetrating depths comes flowering a freedom in design which architects have never known before but which they may now employ in their designs as a true liberation of life and light within walls; a new structural integrity; outside coming in; and the space within, to be lived in, going out. Space outside becomes a natural part of space within the building. (Wright, 1960, p. 313)

In addition to signifying that the depth of architecture can be achieved through the liberation of life within the work of architecture, he also devotes a new ability to the walls. The walls now reach beyond the structure and carry the interior space to the exterior as well as bring outside to inside, rather than being "free" only within the structure. This is not just a result that he got with the new structural capabilities; it is related to his design principles of architecture.

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Wright heavily stressed the theory of organic architecture in his designs. According to him, organic architecture is the "architecture that develops from within outward in harmony with the conditions of its being, as distinguished from one that is applied from without" (Wright, 1975, p. 122). It has been discussed that the concept of organic form goes back to Antiquity and originates from how the form of living beings is composed (Davies, 1982, pp. 120-1). Accordingly, Parker (1926) claims that "the ancient law of organic unity is the master principle of aesthetic form; all the other principles serve it" (p. 36). Defining this organic form as "an organism which develops from within" enables to refer to what is located "within" (Davies, 1982, p. 121). According to Wright (1930, as cited in Mallgrave, 2008), a house is analogous to human anatomy; "electric wiring for nervous system, plumbing for bowels, heating system and fireplaces for arteries and heart, and windows for eyes, nose, and lungs generally" (p. 161). This mindset further established close relations with the concept of organic design and with living organisms.

Furthermore, Wright wanted to merge indoors with outdoors in his designs. The way he attempted to achieve "outside coming in; and the space within, to be lived in, going out" is the theory of "destruction of the box," as he refers to it (Wright, 1975, p. 30). Through such intentions, "the house became more free as 'space' and more livable, too. Interior spaciousness began to dawn" (Wright, 1960, p. 44). The aim behind such an attempt "was not an esthetic campaign waged to establish new shapes and details, but a struggle to sense an appropriate way for man to behave in the world around him, with the world around him" (Wright, 1975, p. 31).

The organic concept is not solely related to the practical functionality of planning; it possesses every conceivable aspect of architecture; aesthetic, subjective, symbolic, the spiritual (Davies, 1982, p. 120). Wright practiced these theories in his Prairie House designs. These designs followed six principles to achieve an organic value; houses must possess simplicity and repose, there must be as many kinds of houses as there are kinds of individuals, and houses must be integrated into their sites to make it look like they grew from the site themselves to harmonize with its environment, its colors also must be fitting to those of nature, the nature of the materials must be brought out and not be masked, and lastly, the character of the house will be more "valuable" with age (Kruft, 1994, p. 425). Accordingly, these principles about the property of the terrain

and environment, the nature of the materials, and the overall function of the building are the factors that determine the form of the building which results in the interpretation of Sullivan's dictum "form follows function" as the "form and function are one" (Kruft, 1994, pp. 428-9). With the Prairie houses, the wall is no longer an architectural element that encloses void to define space and it becomes a dismembered plane to accompany the horizontal elements such as the cantilevered roofs to not impede the outward-inward interaction of space (Brooks, 1979, p. 14). Furthermore, Wright also argued that a house had to signify comfort and the idea of shelter (Satler, 1999, p. 18). What should be noted here is the "idea" of the "sense" of shelter. This idea is present *for* the user and comprehended *by* the user. Satler (1999) claims that such considerations praise the role of the inhabitants as they are "subsumed into the function or use of the structure," which would determine the form (p. 18).

Every theory and principle that has been mentioned comes into unity with Wright's organic designs; expansion from a central point of the structure outwards as well as being in harmony with the environment, both by being in physical relation with nature and respecting the natural materials by utilizing them directly. It all comes down to the function of "home" being embodied in the form of the "house" and finding exterior expression. It is possible to see the same design decisions have also been taken into account with the Ward Willits House (1902) as well as, the Robie House (1909-1910) (see Figures 3.32, 3.33).

Figure 3. 32 Ward Willits House (Yao, 2010)

Figure 3. 33 Robie House (Adamo, 2018)

It is also possible to investigate the stress over the aspect of nature and its direct relation with the built environment. Such consideration of the natural environment alongside his design principles can be seen in their most literal sense with the Fallingwater House (1936) (see Figure 3.34). "Nature permeates the structure at every turn," says Frampton (1992) and continues to investigate the way how the structure links the user with nature;

> The rough stone walls and flagged floors intend some primitive homage to the site is borne out by the living-room stairs which, descending through the floor to the waterfall below, have no function other than to bring man into more intimate communion with the surface of the stream. (p. 189)

That stair is a great indicator that when speaking of "use" or "function" in architecture, the dimension of it must be clearly stated. Stairs exist to bridge a vertical distance and enable their users to physically travel from one end to the other. This is their practical function of them. However, when the "other end" is serenity, it is also possible to interpret the "function" of the stairs as; a "cause" of bringing peace of mind and tranquility to its users. In this case, stairs can still be utilized physically, but their "purpose" changed from merely enabling physical transportation to a spiritual or a psychological "cause". The meaning of its function expanded beyond the physical realm. It still enables the physical body to traverse to the other side, but the state of

mind is also relocated alongside it. Accordingly, when investigating the fitness of this specific architectural element, its intended "use" must be reevaluated. It if were only to be confined to its physical function, then there would be a discussion over its failure of fitness since it is technically a physical dead end; the stairs are not connected to "anything". Yet, when considering its intended "use" beyond the physical realm, it becomes possible to claim that the "dead end" is not so dead after all. If the potential repose is what was intended as its use, then only the users can judge its fitness since neither the designer nor an outside observer can determine if it were successful in its "use". They can only intend or speculate the intellectual or psychological outcome since they are not the one who "uses" it.

Figure 3. 34 Fallingwater House (Allen, 2018)

The conception of functionality being greater than mere practicality can also be seen in the ideas of Alvar Aalto (1898-1976). Aalto (1960, as cited in Frampton, 1992) claims;

> To make architecture more human means better architecture, and it means a functionalism much larger than the merely technical one. This goal can be accomplished only by architectural methods, by the creation and combination of different technical things in such a way that they will provide for the human being the most harmonious life. (p. 199)

What should be noted here is that Aalto achieves to go beyond practical functionality by still utilizing the architectural elements themselves. So, in a similar case to the stairs of Fallingwater House, physical practicality enables such functions to take place as

being the foundation for it. Aalto even goes further to bind this practical functionality to its non-practical causes by claiming that "technical functionalism is correct only if enlarged to cover even the psychological field" (Aalto, 1940, as cited in Kim, 2009, p. 10). The problems that concern the psychological field are very tough to locate and propose a potential solution, relative to the problems of mass production. The element of the individual is being brought to the forefront of architectural theory, confronting the practical concerns with its problems. As Aalto (1930, as cited in Pallasmaa, 1998) states;

> It requires radicalism to avoid creating a superficial comfort and instead to search out the problems whose solution could create the conditions for better architectural work and achieve truly usable criteria for people's well-being in their everyday lives. (p. 29)

It is possible to observe an attempt to satisfy and be fit for a psychological problem by Aalto at his Paimio Tuberculosis Sanatorium (1933) and the Viipuri Municipal Library (1934-1935) (see Figures 3.35, 3.36). In the former case, Aalto was focused on the "patient's behavioral and psychological aspects within the existential space" (Kim, 2009, p. 11). With the latter, a "humanly rational" design approach through "a kind of light suitable for reading, blended and softened by being reflected from the conical surfaces of the skylights" (Aalto, 1940, as cited in Kim, 2009, p. 11).

Figure 3. 35 Paimio Tuberculosis Sanatorium (Covre, 2016)

Figure 3. 36 Viipuri Library (Langdon, 2015)

Accordingly, it is evident that Aalto sought to reach beyond the practical functionality into the psychological field which concerns the users with the utmost priority. Yet, the problems of the psychological field should not be understood as if it is confined to patients in a hospital or a reader getting uncomfortable. Similar considerations can also be seen in his housing projects where he also considered the individual as the center of his designs. He acknowledges that homes are expressions of the dweller's personality rather than who designed them and claims that the objects of the home should be related to the dwellers' past, memories, and appreciations (Jetsonen & Jetsonen, 2012, p. 14). This is also a criticism made of Modern architecture. As Aalto (1958, as cited in Treib, 1998) claims; "I think however the number one enemy is modern formalism where inhuman elements are dominating. (…) True architecture exists only where man stands in the centre" (p. 57).

Furthermore, it is possible to see a specific care for expression with Aalto. His House of Culture (1958) in Helsinki can be explored as an example (see Figure 3.37). Porro (2021) puts it as "the exterior form reveals the interior use of the space, the linear elements of the ceiling indicates the stage, the walls on each side direct the gaze to the same point" (pp. 54-55). A similar expression was present in his Otaniemi Technical University Library (1953-1967), where the walls surrounding the auditoriums are the direct print of the plan as well as the roof which also reveals the seating and stage

locations (see Figure 3.38). It signifies the "importance of formal expression as a means of tempering industrial cultures by its empathic power" (Reed, 1998, p. 104). This act of expression can be most vividly seen in Finlandia Hall (1967-1971) (see Figure 3.39). The largest auditorium in the building is erected upwards with its plan printed and erected from the roof of the building whereas the rest of the structure remained under and stretched horizontally. As Reed (1998) puts it; "the dramatically chamfered roof of the large concert hall rises like a craggy snow-covered mountain from the horizontal mass of the main building" (p. 114). Overall, Finlandia Hall is considered as the "symbolic of ideological values of individual liberty and freedom of expression in the Western world" (Reed, 1998, p. 112). This signifies the act of architecture itself as a symbol, not sustaining it through the direct implementation of symbols.

Figure 3. 37 House of Culture (Dürr, 2012)

Figure 3. 38 Otaniemi Technical University Library (Stefan, 2012)

Figure 3. 39 Finlandia Hall (Glynn, 2010)

3.6 Architects Meet Philosophers: The Aesthetic Problem of Language and Meaning

In 1931, when Le Corbusier was already practicing his five-point architecture in his structures, when Mies had already built his Barcelona Pavilion, when Mrs. Schröder was already inhabiting the Schröder house of Rietveld, when Wright had already produced enough amounts of Prairie Houses that expresses the home life, a duck farmer named Martin Maurer built himself a shop that sells ducks and duck eggs that has a form of a duck called Big Duck (1931) (see Figure 3.40). He was neither an architect nor a philosopher but a user who needed to advertise the content of his shop; a need of a form that expresses the function (Kohlstedt, 2016, par. 12). In 1972, Robert Venturi (1967-2018), Denise Scott-Brown (b.1931), and Steven Izenour (1940-2001) gathered their ideas in their book named "Learning from Las Vegas" and explored the case of the Big Duck building through its symbolic power (Venturi et al., 1977). They defined these types of buildings as "where the architectural systems of space, structure, and program are submerged and distorted by an overall symbolic form," becoming a "building as sign" (Venturi et al., 1977, p. 87). It is the act of "making it obvious to passers-by what they would find inside" (Zilliacus, 2018, par. 2). This "sign" is in direct relation with the use of the building, and it is more literal than the Oikema brothel of Ledoux.

Figure 3. 40 Big Duck (Syed, 2017)

Unlike Big Duck, which is a building that is a symbol by itself, they argued over a building type that is not a symbol but a building that "applies symbols"; "the decorated shed" (Venturi et al., 1977, p. 87). The decorated shed is further articulated as the "architecture as shelter with symbols on it" (Venturi et al., 1977, p. 90). It is the "intertwining of the signs and symbols with the physical act of consumption" (Gray & DeFillippis, 2015, p. 1686). The foundation of these ideas originates from the commercial strip of Las Vegas which consists of stores and places that give people "optical signals" and express their use (Kruft, 1994, p. 440). The big signs "leap to connect the driver to the stores" which generates an "architecture of persuasion" to pull in the customers (Venturi et al., 1977, pp. 8, 13) (see Figure 3.41).

Figure 3. 41 Roadside Signs (Venturi et al., 1977)

Furthermore, the "signs and symbols" do not solely consist of billboards and letters. The vast parking lots which are located at the front of the store indicate the presence of a point of interest and it becomes "a symbol as well as a convenience" (Venturi et al., 1977, pp. 8, 9). This type of function is further elaborated as;

> They make verbal and symbolic connections through space, communicating a complexity of meanings through hundreds of associations in few seconds from far away. Symbol dominates space. Architecture is not enough. Because the spatial relationships are made by symbols more than by forms, architecture in this landscape becomes symbol in space rather than form in space. (…) The sign is more important than the architecture. (Venturi et al., 1977, p. 13)

This statement stresses a different act of expression than visually communicating with the interior of a building; it attempts to achieve expression through signs and symbols. Venturi claims that "on the commercial strip the supermarket windows contain no merchandise (…) both merchandise and architecture is disconnected from the road" and they "express" their function through the signs and symbols that reside on the strip itself (Venturi et al., 1977, p. 9). Overall, he puts it as; "I have advocated the use of applique as sign, whose function is not basically spatial or structural, but communicative, via symbolism and ornament" (Venturi, 1982, as cited in Hargreaves, 1983, p. 61). It has also been claimed that Gothic architecture can also be considered and explored in a similar mindset; the plan on cathedrals that takes the form of the cross in the spirit of the duck, and its ornate façade and stained windows calls for a decorated shed, generating a divine presence in the space dominated by the symbols (Gotthardt, 2019).

It is also possible to see arguments that consider the kitsch-ness of the concepts of Big Duck as well as the decorated shed (Pavka, 2018). The concept of kitsch is usually defined with terms that do not praise its aesthetic qualities. "Bad taste", "excessively emotional", "banal", "vulgar", etc., can be seen as adjectives that attempt to define its values (Tanalı, 2000, p. 163). However, even though these can be considered as aesthetic value qualifiers, there are also arguments that consider the topic through ethics. Broch (1969) puts it as "the essence of kitsch is the confusion of the ethical category with the aesthetic category; a 'beautiful' work, not a 'good' one, is the aim; the important thing is an effect of beauty" (p. 71). It is possible to claim that "not good" values that are being devoted to kitsch are the result of the act of imitation. C. Dorfles

(1969, as cited in Öğüt, 1996) considers kitsch as what seems to be art in first glance but isn't since it imitates art; it does not possess the effort of producing art but an act of lying that it does (p. 55).

Whether or not kitsch should be referred to as an act of lying or imitation, which both are responsible for its ethical arguments, the resulting product of such an act possesses a symbolic quality. Accordingly, it is considered as an act of producing symbols and thus possesses a symbolic functionality (Broch, 1969, p. 73). A certain type of communication is surely inevitable on such products. This communication is claimed to exist for entertainment and advertising purposes, economical in its most general sense (Öğüt, 1996, p. 57). These purposes are intended to last as long as the need is present, but only to be forgotten or rejected when the mood of the observing side, the user, changes (Dorfles, 1968, p. 17). Accordingly, it is argued that the Big Duck can be exemplified on this matter as well as the Randy's Donut Shop (Zilliacus, 2018) (see Figure 3.42). The form itself is a direct imitation of the content and it is directed at the visual perception of the observers. It is unlike anything seen in 20th century modernist architecture. However, when considering these examples simultaneously on the relation of kitsch with art as stated above, the question of "what content is being lied to?" raises. After all, even though the donut sign or the whole form itself in the case of Big Duck does not directly influence the practical utilization of the building, they surely function in a way that influence the economic as well as symbolic functionality through the formal consideration.

Figure 3. 42 Randy's Donut Shop (Zilliacus, 2018)

The ideas of Venturi are directed toward Modern architecture as a whole in a criticizing manner. Venturi claims that "recent Modern architecture has achieved formalism while rejecting form, promoted expressionism while ignoring ornament, and deified space while rejecting symbols" (Venturi et al., 1977, p. 148). He explores these ideas by comparing his Guild House (1960-1963) with Paul Rudolph's Crawford Manor Apartments (1964-1966) (see Figures 3.43, 3.44). Guild house is presented as an example of a decorated shed whereas the Crawford Manor as a modern building, which both are similar in use, size, and date of construction. Guild house has ornaments that depend on explicit associations, whereas the Crawford Manor does not, and its architectural elements are in associations of another, less explicit, kind (Venturi et al., 1977, pp. 91-3). Accordingly, the sign at the entrance carries a "denotative meaning in the explicit message of its letters and words" which contrasts with the "connotative expression of the other, more architectural elements of the building" (Venturi et al., 1977, p. 100). As the comparison continues;

> On the front elevation, an arch sits above a central vertical stripe of balcony voids, whose base is the ornamental entrance. Arch, balconies, and base together unify the facade and, like a giant order (or classic jukebox front), undermine the six stories to increase the scale and monumentality of the front. (Venturi et al., 1977, p. 92)

In addition to this, the front façade is topped by a gold television antenna as a "symbol for the elderly" (Venturi et al., 1977, p. 92). It is an indication of the main activity of its inhabitants (Kohlstedt, 2016). Through this comparison, Crawford Manor's implicit symbolism is referred to as "heroic and original," whereas the explicit symbolism of Guild House is referred to as "ugly and ordinary" (Venturi et al., 1977, pp. 93, 100). He got criticized by Kruft (1994) over using the terms "ugly and ordinary" but then trying to aesthetically assure them (p. 441). Yet, it is possible to argue against Kruft by claiming that the concept of ugly can be "aesthetically assured" since aesthetics also covers it and not confined to the "positive" one.

Mallgrave (2005), on the other hand, puts it as an "aesthetic justification for ambiguity" and it is more fitting for the theories of Venturi (pp. 402-3). After all, by utilizing a variety of elements such as signs, symbols, structural elements, ornaments, etc., Venturi wanted to achieve a "complex and contradicting" architecture based on "richness and ambiguity" (Venturi, 1977, p. 16). He supports the "richness of

meaning" rather than "clarity of meaning" for both implicit and explicit functions (Venturi, 1977, p. 16). Therefore, by opposing the motto of Mies, Venturi asserts that "blatant simplification means bland architecture. Less is a bore" (Venturi, 1977, p. 17). Yet, it is worth mentioning that when comparing the Guild House with Crawford Manor, he ironically stated his building as "boring" (Venturi et al., 1977, p. 102).

Figure 3. 43 Guild House (Helena, 2017)

Figure 3. 44 Crawford Manor Apartments (*Crawford Manor Apartments*, 2022)

Accordingly, it has been claimed that Venturi was exploring a new era of architecture, referred to as "Postmodernism" (Ghisleni, 2021). Venturi asserts that "architects can no longer afford to be intimidated by the puritanically moral language of orthodox Modern architecture" and follows it up with the elements of this new architecture;

> (…) hybrid rather than "pure," compromising rather than "clean," distorted rather than "straightforward," ambiguous rather than "articulated," perverse as well as impersonal, boring as well as "interesting," conventional rather than "designed," accommodating rather than excluding, redundant rather than simple, vestigial as well as innovating, inconsistent and equivocal rather than direct and clear. (Venturi, 1977, p. 16)

This indicates that the properties of modern architecture are under attack and being opposed. This opposition is a "search for architectural communication, the desire to make architecture a vehicle of cultural expression" (McLeod, 1989, p. 24). Similar to how the editors of Harvard Architectural Review declared that postmodernism is "an attempt, and an important one, to respond to the problem of meaning which was posed but never solved by the modern movement" (McLeod, 1989, p. 24). The attitude of postmodernism is also got considered as a "self-criticizing modernism" which exists to eliminate modernist thought (Işık, 1996, pp. 17-8). The approach of Modernism to the form was dictated by the "function". With postmodernism, the modernist term "function" is replaced with the term "meaning" (Schumacher, 2010, p. 129). Furthermore, the modern movement was seen as "destructive, rather than productive," as a result of its "desolate mass-housing projects" and the "mute" architectural language emerged through its formal principles (McLeod, 1989, p. 24). Eisenman (1976, as cited in Mallgrave, 2008) claims that modernism derives from a "non-humanistic attitude toward the relationship of an individual to his physical environment, it breaks with the historical past" (p. 416). As an embodiment of a response to such a modern mindset, the AT&T Corporate Headquarters (1978-1983) by Philip Johnson (1906-2005) and John Burgee (b. 1933), is embedded with "historical references and symbolism" and resides in New York as an artifact of postmodernism (Palmer, 2008, p. 156) (see Figure 3.45). Through its form and style, especially with its "Chippendale" top, the AT&T building generated publicity, which also affected the marketability and prestige values of such postmodern skyscrapers (McLeod, 1989, p. 29). It's a fitting example that indicates how postmodernism evolved into an uncontrolled show of power (Cansever, 2017, p. 39).

Figure 3. 45 AT&T Corporate Headquarters (Langdon, 2019)

Postmodernists considered the relationship of function to form in modern architecture as a "tragic" or false "necessity" idea that limits, confines, and distorts the experience of the user (Handler, 1992, p. 699). Accordingly, Postmodernism encouraged the independence of the façade from the interior and created a "disjunction between inside and outside" (Schumacher, 2010, pp. 128, 135). With modernism, the form was freed from the structural concerns with the capabilities of construction technologies, but as quoted above, the resulting product was considered as "mute". With postmodernism, it is possible to consider that form was freed once more by gaining a semantic function and not being mute. Culture gave meaning to the works of architecture and through appliques, signs, and symbols, it "bestowed a humanity on buildings" (Hargreaves, 1983, p. 61). Architecture now possesses a "communicative power as a cultural object" with a heavy emphasis on ornament, color, texture, and pattern as a "new interest in

cultural signs" generating a language related to the users' values (McLeod, 1989, p. 27).

Yet, just as postmodernism criticized the principles and products of modernism, a new reaction formed against the elements of postmodern ideas. This reaction was against the semantic values, historical imagery, and most importantly, the supposed "humanism" of postmodernism (McLeod, 1989, p. 43). Libeskind (1981, as cited in Mallgrave, 2008) claims;

> There is an approach (…) which attempts nevertheless to deal with the poetic complexity of Architecture in time. it seeks to explore the deeper order rooted not only in visible forms, but in the invisible and hidden sources which nourish culture itself, in its thought, art, literature, song and movement. (…) Such an approach does not wish to reduce the visible to a thought, and architecture to a mere construction. (p. 465)

This tendency is referred to as "Deconstructivism" and instead of aiming to possess cultural communication, it was explicitly focused on "fragmentation", "dispersion", "decentering", and similar acts that are altering the usual way of understanding and practicing architecture (McLeod, 1989, p. 43). It is claimed that the foundation of this approach resides in the philosophy of the French philosopher Jacques Derrida (1930–2004), whose ideas were over the use of language and that "nothing has one single, intrinsic meaning, but words, ideas, and images must always be understood in relation to their surrounding context" (Palmer, 2008, p. 89). Furthermore, this idea that suggests "meaning is infinitely deferred and that there exists no extralinguistic beginning or end" is used by critics to explain the essence of this new architecture (McLeod, 1989, p. 44). This philosophical background became the source for both Bernard Tschumi's (b. 1944) and Peter Eisenman's (b. 1932) designs.

The deconstructivist idea stresses the concept of "no meaning/endless meaning" and creates further discussions over its coexistence with the aspect of context and function in architecture (McLeod, 1989, p. 58). Because, as Eisenman (1970, as cited in Mallgrave, 2008) claims, "there is no conceptual aspect in architecture which can be thought of without the concept of pragmatic and functional objects, otherwise it is not an architectural conception" (p. 399). Yet, even though the practical functionality of architecture is claimed to be this substantial, its coexistence with the aspect of semantics reaches beyond its practical utilization. After all, "the ground plane will

always be semantically different than the roof plane" (Eisenman, 1970, as cited in Mallgrave, 2008, pp. 399-400). This leads to the conceptualization of the practical utility expanding beyond providing practical benefits. Accordingly, the emergence and acquisition of this semantic information through practical usage are worth questioning, because what devotes those planes to their "ground" or "roof" properties can be based on their practical implementation. As Eisenman (1979, as cited in Patin, 1993) explains this "paradoxical" relation;

> To distinguish architecture from building requires an intentional act, a sign which suggests that a wall is doing something more than literally sheltering, supporting, enclosing; it must embody a significance which projects and sustains the idea of "wallness" beyond mere use, function, or extrinsic allusion. Thus its paradoxical nature: the sign must overcome use and extrinsic significance to be admitted as architecture; but on the other hand, without use, function, and the existence of extrinsic meaning there would be no conditions which would require such an intentional act of overcoming. (p. 88)

House I (1968) is a structure in which Eisenman experimented with such ideas. It is not clear which columns or beams have the load-bearing function, or whether the house is structured on columns or walls (see Figure 3.46). This enabled the structural elements to be "freed from their function, and convey deeper meanings" so the observer is encouraged to "find the inner logic of architectural form" from what has been lacking its "functional meaning" (Djalali, 2017, p. 6). This particularly indicates that "being" functional is considered as a value of the object as its meaning. It has been explored that the walls and façades were freed from the structural elements with the advancements in construction technology. Now, the structural elements are also freed from the very thing that made them what they are, in their practical sense. It is possible to claim that the same ideology can also be found on the upside-down staircase in House VI, which is not practically functional. This absence of practical meaning enabled the observer to seek deeper meanings without any prejudice over practical functionality (see Figure 3.47). Just as Tschumi (1981, as cited in Mallgrave, 2008) puts it; "a building is a point of reference for the activities set to negate it. A theory of architecture is a theory of order threatened by the very use it permits. And vice versa" (p. 464). Accordingly, "functionality" is a symbol for Eisenman and he tried to reconsider the dominance of practical functionality in his theories (Akcan, 1996, p. 48).

Figure 3. 46 House I (Eisenman, 1968)

Figure 3. 47 House VI (Perez, 2010)

In 1982, the competition for an "Urban Park" in Paris got organized by the French Government. Bernard Tschumi won the competition with his Parc de la Villette (1984-1987) design by proposing "juxtaposition and combination of a variety of activities" that will encourage "new attitudes and perspectives" (Tschumi, 1989, p. 1). The government conceded the definition of the program of the park to the control of the architect (McLeod, 1989, p. 47). Accordingly, this gave Tschumi the flexibility to experiment with his theories. Similar to the ideas of Eisenman as explored above, Tschumi (1989) stated that his La Villette "aims at an architecture that means nothing, an architecture of the signifier rather than the signified, one that is pure trace or play of language" (Tschumi, 1989, p. viii). This understanding is practiced through the "Folies" within the Parc de la Villette (see Figures 3.48, 3.49). It surely recalls the concept of "no meaning/endless meaning" since Tschumi also claims that with La Villette the "meaning is never fixed but is always deferred, differed, rendered irresolute by the multiplicity of meanings it inscribes" (Tschumi, 1989, p. viii). The initial absence of the meaning followed by the alteration of meaning by the user indicates that this aspect of meaning does not reside in the object itself but is generated by the observer. As Tschumi (1989) puts it; "for whatever 'meaning' it may have is a function of interpretation: it is not resident in the object, or in the object's materials" (p. viii).

Figure 3. 48 Folie N5 (Tschumi, 1989)

Figure 3. 49 Folie P7 (Tschumi, 1989)

Even though Eisenman and Tschumi had an interest in the deconstructivist philosophy of Derrida, architects who accompanied them in the "Deconstructivist Architecture" exhibition in 1988 rejected the deconstructivist label (McLeod, 1989, p. 44). Among those included Zaha Hadid, Frank Gehry, Daniel Libeskind, Rem Koolhaas, and Coop Himmelblau. Accordingly, Mark Wigley (b. 1956), as the co-editor of the exhibition alongside Philip Johnson, made a distinction between "deconstruction" and "deconstructivism" (Mallgrave, 2008, p. 477).

Wigley (1988, as cited in Mallgrave, 2008) claimed that architects have always utilized simple geometric forms that contribute "harmoniously to a unified whole" and "any deviation from the structural order, any impurity, is seen as threatening the formal values of harmony, unity, and stability" (p. 478). However, he indicated that the projects that were featured in the exhibition mark a different sense than maintaining a pure form. He refers to this design approach as "deconstruction" in its literal sense and claims that it challenges the very values of harmony, unity, and stability (Wigley, 1988, as cited in Mallgrave, 2008, p. 478). Similar to how Palmer (2008) claims that deconstructivist architects have a desire to "deconstruct" the traditional classical aesthetics of symmetry, balance, and harmony that had informed architectural design since antiquity" (p. 89). It is also claimed that Constructivism, as practiced at the beginning of the 20th century, influenced Deconstructivism. As Wigley (1988, as cited

in Mallgrave, 2008) puts it; "Russian Constructivism constituted a critical turning point where the architectural tradition was bent so radically that a fissure opened up through which certain disturbing architectural possibilities first became visible" (pp. 478-9). Accordingly, the deconstructivism is considered as the "picking apart the construction of meaning" (Frampton, 1992, p. 49).

Yet, it has already been mentioned that harmony or unity is not the only meaning that is being deconstructed; functionality is also considered as a meaning that can be "deconstructed" to reveal deeper meanings. Recalling the concept of "no meaning/endless meaning" and, for example, how the columns or beams in Eisenman's House I can relate to the user without their "functional meaning," wouldn't it be possible to seek the concept of fitness in non-physical dimensions? Isn't it also a form of use for users to seek "deeper meanings"? This question suggests that, just as how it was claimed when investigating Alvar Aalto, the subject is the one who utilizes the function; thus, determining the fittingness. After all, the wooden shield of Socrates was good; thus, beautiful, because it was fit for the utilization of the bearer, not solely by itself or just because it is not golden.

Furthermore, even if deconstructivist architects "challenge the very values of harmony, unity, and stability" that doesn't mean they are destroying or demolishing them. Just as Wigley (as cited in Frampton, 1992) puts it;

> The form is distorting itself. Yet this internal distortion does not destroy the form. In a strange way, the form remains intact. This is an architecture of disruption, dislocation, deflection, deviation and distortion, rather than one of demolition, dismantling, decay, decomposition and disintegration. It displaces structure instead of destroying it. (p. 313)

This indicates that an object still exists in the aftermath of the deconstruction, but is different than how it was. The difference can be visually apparent, but, as already mentioned above, there is also the factor of seeking deeper meanings. It is a matter of discussion whether that "deeper meaning" already existed in the object and got revealed through the act of deconstruction or was created by it. As Wigley (as cited in Frampton, 1992) argues over it;

> What is finally so unsettling about such is precisely that the form not only survives its torture but appears all the stronger for it. Perhaps the form is even produced by it. It becomes unclear

which came first, the form or the distortion, the host or the parasite. No surgical technique can free the form; no clean incision can be made. To remove the parasite would be to kill the host. They comprise one symbiotic entity. (p. 313)

Relatively to the statement of Wigley over the potential emergence of form through deconstruction, it is possible to consider the ideas of Daniel Libeskind (b. 1946) as similar. When elaborating his ideas over his project Jewish Museum Berlin, Libeskind (1992) stresses the notion of "a deconstruction which has itself been deconstructed" and claims that "fragmentation and displacement mark coherence of the ensemble in this type of operation, because the thing come undone in order to become accessible, both functionally and intellectually" (p. 86) (see Figure 3.50). Ideas of Libeskind can be investigated in two parts; the initial part would seek answers on how deconstruction can be deconstructed and how this act of undoing can be practiced through fragmentation and displacement, and the other part would be about the concept of a "thing" being accessible functionally and intellectually. Following the main inquiry of this thesis, the initial part is not being investigated and is left out to be investigated by the external studies that focus on such topics. However, it is possible to claim that the idea of something being accessible functionally and intellectually can be analyzed within the context of this thesis. The analysis of the conception of functionality presented that a work of architecture can relate to its users through a spectrum of functions. So, what kind of functional accessibility did Libeskind intend to achieve in his Jewish Museum? How can users access and utilize whatever is there to be accessed?

Figure 3. 50 Jewish Museum in Berlin (*Jewish Museum*, 2022)

It has been articulated that a museum, especially when its historical background is considered, is a place that showcases, exhibits, or displays a collection of objects and artifacts that possess certain values such as artistic, cultural, and scientific (Findlen, 1989). Generally, it is possible to see that this act of displaying is achieved in its most literal sense; by placing these objects and artifacts within display cases for visual access and communication to its users. This type of exhibition can be seen at the Jewish Museum in Berlin which contains spaces that have posters and display cases displaying artifacts that once witnessed tragic events (see Figure 3.51).

Figure 3. 51 An interior space of Jewish Museum in Berlin with display cases (Bruns, 2022)

If this showcasing were to be solely considered as the intended use of the building, then it would be possible to claim that it can be fit to its use when users have visual contact with the artifacts and learn about what is being displayed. Yet, it is also possible to see that the building has spaces that do not contain any display cases or posters (see Figure 3.52). Just because there aren't any display cases, does that mean nothing is being displayed? Or does it result in the failure of its fitness for the intended use? Can a museum only "display" what is meant to be conveyed only in display cases?

Figure 3. 52 Hall of the Jewish Museum (Da Silva, 2014)

Above, it has been mentioned that museums display artifacts that have certain values which would indicate their semantic properties. They are embedded with values to be recognized and comprehended by their observers. With Libeskind, it becomes possible to claim that the building, both by itself as a whole and with its individual spaces within, also conveys the semantic context of the Holocaust. Libeskind (2019) states that "it's an experience, and some of it is foreboding, some of it is inspiring, some of it is full of light, some of it is dark, some of it is disorienting, some of it is orienting. So yes, that was my intent, in creating a building that tells a story" (4:50-5:15). Through which design decisions this story is attempted to be told, whether with passageways that lead nowhere or with gloomy rooms, is not a matter to be investigated in this thesis, but, in what ways can the user potentially receive, recognize, and access that story is. It has been argued that being fit for intended use is a potential case to generate an aesthetic experience. Accordingly, with Libeskind, it is possible to argue that the fitness for the intended use of such a museum is attempted to be achieved through experience; the user communicates and receives what is there to be conveyed

by experiencing the space if the architect's intention becomes a reality of course. It has been claimed that the "museums as a whole bears responsibility for doing its best to provide visitors with a suitable context for aesthetic or optimal experience" (Lankford, 2002, pp.149-50). Through the potential functional properties of such experiences, would it be possible to claim that the user can access the "displayed" information via experience? If so, this would also result in the status of fitness being devoted to the intended use of the building through experience. This idea argues over the notion of experience as a way of the utilization of the intended use. It has also been investigated that the aesthetic quality of an object can be recognized and comprehended through the aesthetic attitude of the subject. It is a way to realize and comprehend aesthetic quality. So, according to the concept of appropriateness, if the aesthetic quality emerges from the utilization of what is fit for its intended use, does that enable the consideration of the utilization of architectural functionality as an aesthetic attitude? After all, without utilizing what is functional, how come a user can judge and appreciate its fitness anyway?

4. CONCLUSION

The act of architecture exists as an interaction of humanity with its environment. What emerges out of this action, the built environment, sustains this interaction through the utilization of its users. This utilization can vary from practical to semantic, symbolic, and psychological levels. Through this utilization, it is possible to claim that users can sustain their physicality as well as their ideological values and psychological states. However, there are also discussions that consider the notion of the user-architecture relationship reaching beyond the creation of physical space or responding to comfort conditions. The point where the quantitative attribute of architecture goes beyond definable and measurable, the user-architecture relationship has been investigated through the discipline of aesthetics, which is a way of recognition, communication, and knowing, as a branch of philosophy. It has been argued that the focus of the aesthetic discipline is to study the experience that occurs when an aesthetic subject witnesses the potential aesthetic values of the object. However, when the aesthetic experience of architecture is analyzed, in what circumstance aesthetic objects can potentially achieve aesthetic values and the way the subject recognizes them is required to be investigated. Furthermore, the quality of the "object" of architecture is not confined to what is apparent or physical. It also includes the aspect of functionality as its substantial quality. Accordingly, there are discussions about whether or not this functional aspect influences the aesthetic experience of architecture as well as if the other way around is possible where the aesthetic experience of architecture can contribute to the functionality of architecture.

This thesis is aimed to investigate the emergence and potential functional aspect of aesthetic experience through its relationship with the functional aspect of architecture. With the methodology of philosophical investigation, the overall aim is focused on recognizing aesthetic experience as a potential function of architecture and its contribution to the functional aspect of architecture. Such investigation is conducted over the frameworks drawn for the extensive disciplines of aesthetics and architecture and explored through comparative literature review.

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In the second chapter, the framework over the aesthetics analysis is drawn to initially include the historical background of the discipline to understand how the aesthetic value qualifiers are recognized throughout history. Following this, the complementary components of aesthetic experience are analyzed; the aesthetic object and the aesthetic attitude of the subject. Lastly, this framework includes the investigation of the aesthetic experience in architecture through the counterpart of its architectural components. In the third chapter, the potential emergence of an aesthetic value by being appropriate for the intended use and by having appropriate unity among the parts is introduced under the concept of appropriateness. Following this, the presence of the concept of appropriateness in architectural theory over the form-function relation is investigated. Accordingly, how the aesthetic experience and the functional aspect of architecture influence each other is discussed.

4.1   Being Aesthetic to fit in Architecture

Initially with the Antiquity period, beauty was considered through mathematical proportions and by being in harmony with the order of the universe. Following this, it is possible to see the function-related theories that explore the emergence of aesthetic qualities from what is made appropriate to its intended use. This carries great importance for both upcoming aesthetic discussions throughout history and also considering aesthetics in architecture through functionality. Later, the approach towards aesthetic values altered into metaphysical discussions and was considered as an Idea. However, the considerations of proportions and apparent qualities weren't neglected completely. Overall, it became possible to claim that the philosophers of the Antiquity period mainly possessed an objective stance for the understanding of aesthetic qualities. With the introduction of religion, discussions over aesthetics got heavily affected. The convergence of theology and aesthetics brought new understandings. Beauty, good, and art became a path to the Holy. However, the impact of religion wasn't very fruitful, and the Medieval period was lacking in producing varying discussions over aesthetics, unlike Antiquity. It was only to be revived with the discussions that praise the intellect and comprehension of the observer in the 18th century. With the introduction of the term "aesthetics," it is claimed that aesthetics is the science of sensuous knowledge and through such understanding, the focus shifted from objectified attributes to the subject who comprehends those attributes. The

subject in aesthetic discussions now possesses the ability to judge and appreciate what is being perceived. The articulation of judgment of taste devotes the significance to subjective discussions over objective ones. Definitive approaches kept on emerging with concepts such as spirit, empathy, spiritual pleasing-ness, and truth. Their purpose of existence is to recognize and comprehend the relationship between the subject and aesthetic concepts such as beauty and art. As a result of this framework, the overall mindset of aesthetic discipline is considered as a way of knowing; recognizing its concepts to know how humanity explores what it feels and thinks as well as the relation to its environment.

This framework over historical background presented the different comprehensive and definitive approaches that existed throughout history. However, what should be obtained from this framework is that aesthetic discipline changed its focus from discussing objectified attributes on achieving beauty to the one who comprehends that value. The answer to the question of "Is a thing beautiful because it pleases or does it please because it is beautiful?" became approving the former. After all, aesthetic discipline tries to understand how aesthetic value is recognized and experienced. Rather than directing questions such as "why is this beautiful?" aesthetics began to ask; "what is the cause of liking this?". This is the very reason why aesthetics can be considered as a way of recognizing and knowing.

With the examination of aesthetic experience in the following section, it became evident that this experience occurs within the subject when it is influenced by an object that has aesthetic values. What devotes that object its aesthetic value has a variety of understandings, similar to how it was in the history of the philosophy of art and beauty. Since aesthetic-ness is not an adjective that can be used in a similar manner as colors or textures, what can be stated is that much of the appeal of the object originates from the impact it has on the subject. This impact is mainly considered through the form of the object but, as also investigated above, theories such as fitness for intended use also indicate that the aesthetic quality cannot be confined to apparent properties. Furthermore, objects can be considered as the source of the experience, but the experience cannot exist on an object or by itself in the wilderness. As the host of this experience, the subject also has to have a certain attitude and attention towards the said object to uncover and bring meaning to the values it has. Subject judges, appreciates,

and comes to a potential state of having an experience that can be considered as an aesthetic one. Considering this experience as a relation between the subject and the object paves the way towards its analysis in architecture through its utilization.

Upon examining the aesthetic experience in architecture, initially what became clear is that the aesthetic subject in architecture resembles the user and the aesthetic object corresponds to the architectural space and form. How the subject perceives and comprehends the "object" of architecture is very substantial in understanding the occurrence of aesthetic experience in a work of architecture. A subject is required for the completion of the architectural whole since the user is a part of the architecture that contributes to its whole. Since it is claimed that visual perception is a substantial part of perceiving architecture, it is claimed that architecture is a visual art. On the other hand, it is also claimed that one cannot see space but can imagine it. This study is not aimed to determine if architecture is a visual art or not.

Even though the subject is the host of the experience, it is not the source of the experience. As indicated in this framework, the source of an aesthetic experience is the potential aesthetic object which correlates to the architectural space and form. What should be noted here is that what makes a space an architectural one is that it is generated via tangible elements of architecture to appropriately enable users to function within. Physical objects in the environment do not rely on humanity to endure their existence, however, when it's about architectural spaces, it is possible to claim that they require a consciousness to sense and judge their existence. Furthermore, it is discussed that architectural atmospheres play a substantial part in the aesthetic experience of architecture. It is an example of architecture reaching beyond definable and measurable qualities. It is claimed to be potentially generated by lighting, temperature, sounds, materials, etc. However, these elements should not be understood as if each one of them is a must and when they are piled up onto each other, an atmosphere is going to emerge all of a sudden. It is surely a topic that evades direct analysis but preparing a guidebook on how to create atmospheres is not the aim of this study. The aim is to signify their existence in architecture and their contribution to the space that the user utilizes to further emphasize the dimensions that the objects of architecture can exist and be utilized. After all, with the functional quality of

architectural space in mind, it is possible to assert that utility can accompany the atmosphere or can potentially be achieved through it.

The way how user relates to and utilizes a work of architecture is not simple as how physical objects are utilized in daily life. It is because of the very elements of architecture; qualities of the space and the form. It is possible to claim that architectural space is a place defined by architectural design and where a user utilizes a work of architecture. It is a place that is designed and provided for users to execute their required activities. The form can be considered as the correspondence of the space to the physical dimension but may also possess values in the non-physical realm such as semantic or symbolic. Users can both utilize and benefit from space and also perceive its apparent form. This is where architecture becomes a very unique case of aesthetic analysis since the space can be utilized and the form-function relation can potentially be appreciated at aesthetic levels. Theories over having aesthetic appreciation towards what is functionally fit and what is objectively aesthetic can be considered mutually.

Accordingly, throughout the history of architectural theory and practice, architects have contemplated a proper form-function relationship. Through their articulations, it became possible to explore the functional aspect of architecture and the aesthetic appreciation potentially influencing each other. The part-whole relationship as well as how it can be appropriately made for the intended use in architecture is discussed through different aspects and dimensions. It is seen that the functional aspect of architecture can be comprehended and practiced in different dimensions. These functions can be explored at physical, economic, semantic, symbolic, cultural, psychological, as well as aesthetic levels. Each function can relate, communicate, and be recognized by the user in their respective as well as in mutual dimensions; symbolic functionality can also have a counterpart in psychological or physical functionality can also have a correspondence in economic functionality, etc. Accordingly, the way architects explored and practiced the idea of being fit for the intended use in architecture can cover multiple functional aspects. Thus, the concept of appropriateness should not be understood as if it is confined solely to practical functionality. As a result of the "uses" of architecture having a wide spectrum, it became possible to explore the variety of supposedly appropriate approaches to them. Fitness for practicality, construction, physical and psychological comfort levels, moral

values, conveying semantic and symbolic values, as well as possessing aesthetic values has been discussed.

Furthermore, the notion of expression is also present in the theoretical discussions of architecture. Through the concepts of *caractère* and *architecture parlante*, architects explored the ability to express the function in architecture. It was focused on communicating the functional property and its appropriateness to the users through the form of the work of architecture. Since the functionality of architecture also included conveying semantic, symbolic, or cultural values, the act of expression became an important topic to practice for their appropriateness. In achieving fitness for such a variety of functions in architecture, the act of ornamentation also played a major part. Whether or not should the ornamentation be fit for the function, contribute to making it fit, express it, or be removed altogether are stressed. When approached with a utilitarian mindset, the function of ornament is discussed over its potential ability to symbolize and convey meanings, the effort put into creating it, and its contribution to generating a formal aesthetic value or expressing the function of the work of architecture. This divergence in considering the function of ornamentation is an indicator of the range of ways on achieving fitness for the intended uses of architecture.

These investigations presented the arguments over the concept of appropriateness in architecture as well as its potential result of aesthetic quality. Discussions over being fit for the intended use indicated that this quality of fitness can be recognized and comprehended through its utilization. As investigated within the framework of aesthetic discipline, aesthetic experience can occur within a subject who can recognize the aesthetic qualities of the object through aesthetic attitude. Accordingly, if there is an aesthetic quality emerging from being fit for the intended use, then it is possible to claim that the utilization of architecture becomes an aesthetic attitude. This act of utilization now resembles an attitude that enables the realization and comprehension of quality, the quality of being functional. Furthermore, investigation of the architectural functionality indicated that there are also intended uses directed at the aesthetic experiences of users, considering their experience as a way of utilization. It is possible to see such intentions from museums to ecclesiastical buildings where the presence of an experience is supposedly intended and argued about. It was mentioned that aesthetic experience can be considered as a way of knowing and communication.

After all, the aesthetic subject recognizes and comprehends the values possessed by the aesthetic object. Such a notion enables the claim that through aesthetic experience, it is possible to receive, comprehend and communicate with the values that are being conveyed to the users by the architecture itself. This further supports the consideration of the aesthetic experience of architecture as a way of utilization as well as devoting it to a functional characteristic.

4.2 Possibility of Reconciliation of Intentions, Meaning, and Aesthetics of Architecture in Function

As investigated in the history of architecture, there are discussions where the function is not solely considered as it is, but how it relates to the users. The fittingness of form to its function is also articulated through its function of expression; expressing the function. Concepts of *architecture parlante* and *caractère* were considered and explored over this topic. When investigating the relation of function and aesthetics through the concept of appropriateness, the part that the form plays cannot be neglected. A history filled with different approaches and practices to the aspect of form through its function as well as through certain elements that influence it such as ornamentation supports this idea. As Scruton (1979) says;

> In all true experience of architecture, form is inseparable from function. Aesthetic experience, according to some versions of the theory, is nothing more than an experience of function, not function as it is, but function as it appears. (p. 38)

In other words, being fit is claimed to be not sufficient for its recognition and aesthetic appreciation but the way how it appears to be fit is. Parsons & Carlson (2008) argue that upon conceptualizing a building over its functional aspect and considering its features as fit for its intended use which also includes what is apparent, it can be considered as "looking fit". The coexistence of appearance and function and the importance of the former for the supposedly-appropriate utilization of the latter can be explored with Arnheim (1964);

> This (appearance) is, first of all, a requirement of utility. Man must rely on his eyes to make use of a building, a teapot, or a machine. Therefore the object should show what it is for, how it goes about serving its function, and how it is to be handled. It is useful to be able to see where the door is and how it opens; the shape of the teapot should distinguish the spout from

the handle; and the handles of a machine are quickly found if they are painted yellow while the machine itself is green and its electric switches and plugs are red, for safety's sake. (p. 35)

To be able to utilize these objects appropriately, they are indeed supposed to express their function so the user can comprehend them and act accordingly. It is possible to claim this as a type of communication that occurs between the subject and the object. Just as Winters (2007) puts this notion of communication through an example of a stair; "that a stair has obliged me to go up does not concern a theory of signification; but that occurring with certain formal characteristics that determine its nature as a sign vehicle, the object communicates to me its possible function" (p. 81). Through the formal properties, Winter's claim suggests visual communication. The same can also be said for Arnheim's statement.

However, it is possible to claim that such an idea becomes partly deficient when considered within the context of architecture. What is in common with the examples that they gave is the fact that all of them consist of practical functions; a spout that is used to pour liquid, a handle to swing open a door, a stair to step on, etc. This thesis began by indicating that quantitative attributes of architecture can potentially go beyond definable and measurable. So, is everything so physical in architecture? Is everything so apparent in architecture? This chapter of the thesis presented the varying dimensions of functions that architecture can potentially have. The intended uses of architecture weren't always confined to physical utilization but also included cultural, symbolic, semantic, moral, psychological, as well as aesthetic levels. Communicating, judging, and then appreciating the fitness of a work of architecture may not be solely confined to the physical or apparent realm. As Gage (2011) puts it; "there must be an equally significant way to judge architectural value in nonscientific terms as well, that is to say in terms of its physical, formal, and aesthetic impact" (p. 19).

Arguing over the topic of form-function relation over the physical objects in daily life is not claimed to be wrong or harmful for architectural discussions, yet it should be noted that what is being referred to as form may contain values or functionalities that do not reside in the physical realm (Weber, 1995, pp. 75-130). When the broad variety of functions that a work of architecture can possess is considered, the relation of how the form appears to the perceiving eye and how the work of architecture functions accordingly is claimed to may not be representative of each other (Tanyeli, 2017, pp.

139-162). It has been claimed that "to know that it (an edifice) is a church requires another kind of perception or cognitive activity" (Mitias, 1999, p. 64). After all, the act of worship does not fully appear as a physical activity since there is the matter of belief. Mies's Carr Memorial Chapel (1952) can be considered as a fitting example of this matter (see Figure 4.1). Its apparent form consists of a "glass box" and it is neither covered with ornaments nor reaches into the heavens. As Porro (2021) articulates that places of worship usually express the "theme of religion", however, Mies's "glass box" does not (p. 46). So, when it comes to considering the relation of apparent form and the foreseen utilization of it, it is possible to claim that exemplifying practical instruments from daily life can only be beneficial to some extent but not fully in architecture because not every work of architecture is, or at least not intended to be, utilized in a fully practical manner.

Figure 4. 1 Carr Memorial Chapel IIT (Dave, 2008)

It has been investigated in the history of architecture that the fittingness for the intended use of a work of architecture can intended to be achieved through the aesthetic experience that the users can have. In such a scenario, what is being communicated to the users can only do so much on conveying the values that a work of architecture can have. After all, "as long as the concept of function is involved in a relevant experience, practical considerations can figure as an integral part of aesthetic judgements based on such an experience" (Sauchelli, 2012, pp. 133-4). How that function is expressed surely plays a substantial part and the investigation conducted in this chapter is in supporting stance to such aspect. However, is the "look" of the fittingness, or how it

is intentionally expressed to the users, more significant than actually being fit without any specific focus on the "looks"?

Read (1935) claims that "the lack of an aesthetic intention in the minds of the designers (assuming such to have been entirely absent) does not invalidate either the aesthetic fact or the aesthetic experience" (p. 17). The context of such a claim is unsurprisingly the 20th century modernist approach where the works of architecture are being executed with the utmost focus on practical functionality. His statement is exemplified by a 500ft. metal mesh tower intended to be a transmitting station which "evolved strictly in response to functional requirements, yet possess definite aesthetic appeal" (Read, 1935, p. 17) (see Figure 4.2). According to Harries (1997), the aesthetic intention "leads quite naturally to an understanding of the work of architecture as essentially a decorated shed" (p. 50). However, the transmitting station does not have and also does not rely on signs or decorations to be fit for its intended use. The "intention" is directed at the "functional requirements," yet, according to Read, the aesthetic experience is generated, nevertheless. Accordingly, this signifies that the aesthetic qualities that can derive from functional considerations are so embedded in architecture that they can emerge even if they are not intended to be.

Figure 4. 2 Regional Transmitting Station of the British Broadcasting Corp. (Read, 1935)

At no point in this thesis, it has been claimed that the concept of appropriateness is confined to physical functionality. It is possible to explore the existence of this concept and its supposed aesthetic quality through varying types of functional dimensions of architecture. As a result of this variance, the way how the fitness for them is achieved can also differ. Accordingly, it is possible to question the varying dimensions in that the utilization and recognition of the functions of architecture can take place. The ways of achieving the varying appropriateness of these functions through which design decisions are not the focus of the main inquiry of this thesis, but the case of their utilization not being confined to physicality is. After all, "meanings and aesthetics are not separate from function," they are embedded and can be conveyed through each other (Preiser, 2008, p. 91).

So, what separates the instruments of daily life that are designed appropriately to their intended uses from the works of architecture? In other words, what difference does the profession of architecture make when responding to a certain requirement? Throughout this study, it has been investigated that architecture can serve to enable certain actions to take place in its spaces, can possess and produce meanings specific to a culture or a social structure, prevent these meanings from being washed away on the shores of time, can produce struggles over political views in the hands of some, etc. As Tanyeli (2017) puts it;

> None of the possibilities created by architectural practice are of primary or secondary nature for architecture. Therefore, the house, which was designed with the intention of serving only as a shelter, also redefines the social or family life beyond this function or ensures that it continues as before. (p. 158)

Throughout the study, the concept of appropriateness is always mentioned as being fit for the intended purpose. The term "intended" specifies both the one who intends as well as the thing (purpose) that's being intended to. Architects can indeed have certain intentions in the design process, they can define how the product comes into existence, they can redefine or propose a way of the utilization of a function, etc. Yet, the moment a product of architecture is realized in the physical realm, only if that's even a requirement for its existence, and granted to the user, the element of architect perishes. Accordingly, this topic is referred to as the user-architecture relationship, as what this thesis is brutally directed at, not user-architect relationship. When stressing the concept

of appropriateness, Hume (1978) does not refer to it as fitness for "intended" purpose but as purposes "to which they are destin'd" (p. 364). Unlike the term "intention", the focus is now directed at the thing that's being intended to, in his words; what is destined to, not at the one who intends. But it is also possible see simultaneous consideration of both the designer and the user. Tanyeli (2017), for example, claims that "space is such a thing that as long as there is a subject who creates and uses it, every space can be appropriate for a purpose" (p. 158).

It would not be possible to confine the destiny of a work of architecture solely to the needs and demands of the users because architecture, both as an act and an idea, is something greater than the desires of mortal humans. Not being able to define this profession to its fullest, when it is first practiced or when it will be the last, supports this. It is argued that an architectural space comes into existence only through the comprehension of the user, yet "existence" is a term created within the boundaries of human intellectual capabilities.

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