THE ROLE OF THE ARCHITECT AND AUTONOMY OF ARCHITECTURE: AN INQUIRY INTO THE POSITION OF THE EARLY MODERN ARCHITECT AND ARCHITECTURE: LE CORBUSIER AND MAISON CURUTCHET

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ABSTRACT

THE ROLE OF THE ARCHITECT AND AUTONOMY OF ARCHITECTURE:
AN INQUIRY INTO THE POSITION OF THE EARLY MODERN ARCHITECT AND ARCHITECTURE:
LE CORBUSIER AND MAISON CURUTCHET

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This thesis is an inquiry into the position of architecture both as a cultural product and as an autonomous discipline. The purpose to search for architectural autonomy is to discover architecture's internal values that can make architects become more aware of their tools and potentials. That kind of research is to discover the boundaries of the discipline of architecture, which interrelates with many other disciplines.

In order to explore architectural autonomy, this thesis explores the internal qualities of architecture with relation to the external ones. The scrutiny of these

internal qualities is to direct architecture through its own realm and to discover its significant values and internal potentials.

Architectural autonomy is explored in this thesis in the framework of Modern Movement. The technological inventions and the social and cultural developments are considered as influential forces in the discipline and practice of architecture.

This study attempts to identify the concept autonomy, not as a property indicating to an architecture that is completely independent from its cultural environment, but as a value implying to architecture's interior qualities that are significant in the discipline's boundaries.

Architecture is examined with relation to its cultural circumstances; by arguing that architecture is not only a part of culture but also one of the constituents of it. Besides fulfilling cultural values, architecture has the ability to transform culture, with its own internal values. In this regard, the issue of autonomy gains importance in maintaining architecture a cultural value.

Keywords: architectural autonomy, culture, form, modernity, technology.

ÖZ

MİMARIN ROLÜ VE MİMARLIĞIN ÖZERKLİĞİ:
ERKEN MODERN DÖNEM MİMARI VE MİMARLIĞI ÜZERİNE BİR ARAŞTIRMA:
LE CORBUSIER VE MAISON CURUTCHET

Seyhun, Canan

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Bu tezin amacı mimarlığın pozisyonunu hem kültürel bir ürün hem de özerk bir disiplin olarak araştırmaktır. Mimari özerkliğin araştırılmasındaki amaç mimarlığın elindeki araçların ve potansiyellerin incelenmesidir. Bu sayede diğer disiplinlerle ilişki içinde olan mimarlığın kendine has olan değerlerinin incelenmesi amaçlanmıştır.

Mimari özerklik araştırılırken, mimarlık disiplininin sınırları diğer disiplinlerle olan ilişkileri dahilinde incelenmiştir. Bu araştırma mimarlığın kendi değerleri ve potansiyellerini keşfetmek amacı ile yapılmıştır.

Mimari özerklik, bu tezde, Modern Mimarlık bağlamında ele alınmıştır. Teknolojik ve sosyal gelişmeler mimarlığı etkileyen faktörler olarak değerlendirilmiştir.

Bu çalışmada özerklik mimarlığı sosyal bağlamından ayırarak değil, mimarlık disiplininin kendi sınırları dahilindeki özelliklerini ortaya çıkararak irdelenmiştir. Mimarlık kültürel bağlam çerçevesinde incelenmiş, aynı zamanda kültürün bir parçası ve bileşeni olarak ele alınmıştır. Mimarlık kültürel gereksinimlere cevap vermekle beraber, kendine has değerleri ile kültürel yapıyı dönüştürebilen bir disiplin olarak ele alınmıştır. Bu anlamda özerklik kavramı mimarlığın kültürel değerini sürdürebilmesi anlamında önem kazanmıştır.

Anahtar Kelimeler: mimari özerklik, kültür, biçim, modernite, teknoloji.

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TABLE OF CONTENTS

LIST OF FIGURES

Figures:

CHAPTER 1

INTRODUCTION

The notion of autonomy of architecture, which implies to an architecture having its self-referential characteristics and its own language, has been discussed as a significant issue within Modern period. Autonomous qualities of architecture have been searched by the practicing architects, in order to consciously use the tools and elements of architecture; and by the critics, in order to judge and evaluate architectural works with qualities interior to architecture. The evaluation of the design process is important, through which the architect's attitude and autonomous qualities of architecture reveal.

In order to explore architectural autonomy, it is important to search for the internal qualities of architecture. The scrutiny of these internal qualities is to direct architecture through its own domain, regarding its own intrinsic values. This debate to inspect architecture's interiority is to discover its significant values and internal potentials.

The purpose of this thesis is to discover the architecturally significant values that can make architects become more aware of what they have as equipment, to equip them with power. This is an effort to unfold the potentials of architecture in the design process. That kind of research is to discover the boundaries of the discipline of architecture, which interrelates with many other disciplines.

The idea of architectural autonomy, which had been a significant issue throughout the twentieth century, had started to be discussed profoundly after 1970s, especially in the pages of the journal "Oppositions". K. Michael Hays points to the significance of 1970s, which he notices the increasing concern about instrumentalization of architecture.[1] Stanford Anderson emphasizes this consideration of Hays, and states that it is "a concern that in turn elicited a significant reaction in the search for an autonomous architecture."[2]

Hays points to the significance of this period and states:

> When the issue of autonomy re-emerged in the 70s, architecture was in the peculiar situation of being eroded from within by having become a service industry completely determined by the building technology and programmatic demands of the time. On the other hand, it had been challenged from outside the discipline by behaviorism, sociology, pseudo-positivist history and pseudo-scientific discourses that tried to explain architecture away in terms of how people behaved, or what response they checked off on a questionnaire. Formal issues had given way to these statistical and operational analyses. Architecture found itself without cultural or disciplinary specificity… In contemporary vocabulary, we could say that architecture found itself de-territorialized. It lost its domain; it lost the cultural realm

[1] K. Michael Hays and Lauren Kogod. "Twenty Projects at the Boundaries of the Architectural Discipline Examined in Relation to the Historical and Contemporary Debates over Autonomy," Perspecta: The Yale Architectural Journal. vol. 33, 2002, pp. 54-71.
[2] Stanford Anderson. "Quasi-Autonomy in Architecture: The Search for an In-Between," Perspecta: The Yale Architectural Journal. vol. 33, 2002, p. 31.

> that it had controlled. It had to, therefore, re-territorialize itself by rediscovering, reasserting or reinventing its codes…[3]

By exposing the conditions of that period, Hays points to the significant investigations about architectural autonomy that had been revealed in consequence of those conditions.

As a result of this position of architecture, Hays states that many important architectural texts and designs had been produced in order to search for the notion of "autonomous architecture."[4] The architects and critics, that Hays refer to, had discussed the notion of autonomy, with their theoretical works in Oppositions, which had started to be published in 1973. The editors of Oppositions had attempted to emphasize the formerly stated difference of 1970s from the previous times. The articles published in Oppositions had contributed architecture discipline, by debating architectural autonomy, without using the term itself. The discussions on autonomy had been realized through concepts like "self-referentiality," which Peter Eisenman explores; "Neo-Functionalism," which Mario Gandelsonas reveals; "Third Typology," which Anthony Vidler discusses, in the pages of the journal.

Mario Gandelsonas, for example, being one of the important contributors, analyses architectural autonomy by means of semiotic scrutiny. In his article "Neo-Functionalism," Gandelsonas discusses the concepts "neo-realism" and "neo-

[3] K. Michael Hays and Lauren Kogod. "Twenty Projects at the Boundaries of the Architectural Discipline Examined in Relation to the Historical and Contemporary Debates over Autonomy," Perspecta: The Yale Architectural Journal. vol. 33, 2002, p. 55.

[4] Hays reveals the examples of Peter Eisenman's houses as explorations of "purely autonomous objects," and articles by Diana Agrest, Mario Gandelsonas and Stanford Anderson as theoretical contributions in the search for autonomous architecture.

rationalism" in order to reinterpret twentieth century's functionalism, from a structuralist point of view.[5] He argues that:

> …neo-rationalism depends on the idea of an architecture that is "autonomous;" that is, on an architecture which, in the eyes of the most radical architects within this tendency, transcends history and culture; an architecture which is a force in itself, a language that speaks about itself and which does not communicate ideas other than its own.[6]

Gandelsonas exemplifies "neo-rationalism" with the work of Aldo Rossi, Peter Eisenman and John Hejduk. He differentiates this from the concept "neo-realism," which he defines as it "is historical and cultural, it cares for the present, for the other aspects and practices of culture, such as pop art, advertising, cinema and industrial design to which it exposes architecture."[7] "Neo-realism" is exemplified by Gandelsonas with the work of Robert Venturi. With this investigation, Gandelsonas reexamines the concept functionalism in Modern architecture, and argues that it eliminates the conceptions of meaning and symbolism. He points to the concept "neo-functionalism," which includes both the "neo-rationalist" and the "neo-realist" notions, and develops "the fundamental dimension of meaning." Gandelsonas sees modern architecture "with its self-conscious synthesis of art and architecture," to represent a historical shift with which some properties were discarded, some were preserved, and new ones were integrated into architecture.

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[5] Mario Gandelsonas. "Neo-Functionalism," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 7-8.
[6] Ibid., p. 7.
[7] Ibid.

Another important evaluation of architectural autonomy had been made by Diana Agrest, in her article "Design versus Non-Design."[8] Agrest questions the relationships between the discipline of architecture with other disciplines and culture, and searches for architectural autonomy in these relations. Agrest claims that the cultural codes that are gained from other cultural systems could be transformed into the discipline of architecture, and could become the codes of architecture itself.

In his article, "Post-Functionalism," Peter Eisenman examines autonomy of modern architectural product, in terms of modernist conceptions. He states:

> Abstraction, atonality, and atemporality, however, are merely stylistic manifestations of modernism, not its essential nature. Although this is not the place to elaborate a theory of modernism, or indeed to represent those aspects of such a theory which have already found their way into the literature of the other humanist disciplines, it can simply be said that the symptoms to which one has just pointed suggest a displacement of man away from the center of his world. He is no longer viewed as an originating agent. Objects are seen as ideas independent of man. In this context, man is a discursive function among complex and already-formed systems of language, which he witnesses but does not constitute.[9]

In this article, Eisenman reveals his concern for architectural autonomy in terms of what he calls "modernist sensibility." In his article, "Aspects of Modernism: Maison Dom-ino and the Self-Referential Sign," on the other hand, he discusses self-referential qualities of architecture in terms of the formal operations of architecture. By examining Le Corbusier's Maison Dom-ino, he argues that:

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[8] Diana Agrest. "Design versus Non-Design," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 331-354.

[9] Peter Eisenman. "Post-Functionalism," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, p. 11.

> But are any or all these variations anything more than geometry? And even in terms of their use as floor levels and the necessity to enclose them so as to provide shelter, are they anything more than a set of geometric relationships plus this use, which together in some way approximate what we have always thought architecture to be? And if we answer in the affirmative that they do constitute architecture, then do all such variations of these elements when combined with their uses constitute architecture? And if it immediately appears clear that not all of the examples qualify, then how do we begin to distinguish between those that do not?[10]

Anthony Vidler, in his article, "Third Typology," discusses architectural autonomy by means of unique properties of architecture. He points to the "Third Typology" by exemplifying with the work of the new Rationalists and states:

> The columns, houses, and urban spaces, while linked in an unbreakable chain of continuity, refer only to their own nature as architectural elements, and their geometries are neither scientific nor technical but essentially architectural. It is clear that the nature referred to in these recent designs is no more nor less than the nature of the city itself, emptied of specific social content from any particular time and allowed to speak simply of its own formal condition.[11]

In this scrutiny, Vidler examines the work of Aldo Rossi and Tendenza, and as Hays states; categorizes the "ontology of the city" as a possible source to maintain architecture a critical role.[12]

K. Michael Hays, in the Introduction of "Oppositions Reader," points to the significance of Oppositions journal, and claims that it had expanded architecture's cultural positions and increased its "practical power."[13] What the journal

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[10]Peter Eisenman. "Aspects of Modernism: Maison Dom-ino and the Self-Referential Sign," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 188-199.
[11] Anthony Vidler. "Third Typology," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, p. 14.
[12] K. Michael Hays. "Introduction," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, p. x.
[13] Ibid. p., xiv.

Oppositions had attempted to achieve is to provide architecture a position having a critical role in the society. In the first Editorial Statement, as Hays exposes, the journal aimed to reveal its belief in the argument, "truly creative work depends upon such an extension of consciousness."[14] The articles published in Oppositions had achieved to pose such consciousness, by profoundly exploring the inner and outer dynamics of architecture.

Correspondingly, the editors of "Harvard Architecture Review" point to the significance of Oppositions, in terms of the continuing debates on architectural autonomy. The issue of Harvard Architecture Review of 1984 deeply scrutinized this conception, which they had titled as "Autonomous Architecture," with the intention of clarifying the term within the boundaries of the discipline. By referring to the articles published in Oppositions, the editors draw our attention to the possible independency of architecture discipline. The editors reveal their interest on the "prior development of theory" in architecture and their aim to contribute the ongoing debates on the notion of autonomy.

Within this specific issue, Harvard Architecture Review points to the influence of the theory of autonomous architecture on architectural production. The editors, additively state that this theory is not very well known and intend to elucidate the theory of "autonomous architecture." Autonomous architecture is revealed, in the pages of the journal, as a concern "for an architecture of essence, one that transcends style and personal taste." Architectural autonomy is being related with reference to "a priori, ideal forms," and linked with the idea of type.

[14] Ibid., p. xiv.

Within this framework, the works of Le Corbusier, Aldo Rossi, and Peter Eisenman are examined by means of the concepts like type, form, and utility.

This profound examination on architectural autonomy, as the editors state by referring to Mark Mack, intends to achieve a return to the discipline that entails a scrutiny of the nature of architecture and its role in the development of the city.

Subsequent to these significant journals, recently "Perspecta" re-evaluates and re-defines the concept of architectural autonomy. In the issue "Mining Autonomy," published in the year 2002, Perspecta intends to scrutinize the meaning of autonomy in terms of the significance of architecture discipline "to act as a critical agent." In the Editors' Statement, architectural autonomy is defined as the notion of architecture as a "self-contained project with its own legible, meaningful forms." The editors draw our attention to the importance of 1970s, and the journal Oppositions, which, as they claim, happened to be a way for architects to define their practice having its own critical social role. Perspecta emphasizes the remaining conditions of "disciplinary uncertainty," and points to the new questions emerged with the newly rising modes of architectural production. The editors' and authors' intention was to explore and discover the position of architecture discipline between having its own critical position and responding to its social context.

Stanford Anderson, in his article "Quasi-Autonomy in Architecture: The Search for an In-Between," points out the intention of Perspecta to reveal possible situations of social and disciplinary boundaries. Anderson draws attention to the issues like "use and form," "social responsibility," and "formal concerns," in discussing architecture's possible autonomy. He poses questions about

architecture's social responsibility, material conditions, and instrumentaization, with the aim of evaluating a range of the concept of "quasi-autonomy."[15]

Throughout the previously mentioned theoretical works, architectural autonomy is being debated within different points of view. Architecture's autonomy has been usually discussed throughout the modern period by many architects and theorists. The widespread argument for the autonomy of architecture indicates the notion that architecture is a self-directed discipline having its own unique language. It is believed that architecture is autonomous because of its capacity to comprise internal characteristics with its significant forms, which belong to architecture itself. These widespread definitions of architectural autonomy does not imply to an architecture that neglects the external factors that affect architectural form; however, autonomous architecture has been situated, by some critics, to be independent from those factors. It is claimed by some scholars, that architecture serves for social, functional, and cultural requirements; for that reason, as they mention, architecture cannot be totally independent. According to another point of view, it is argued that architecture is autonomous and culture-bound at the same time, which is described as being semi-autonomous, or as Stanford Anderson calls, "quasi-autonomous." This definition indicates that architectural form is associated with the social, and cultural realities, but cannot be a mere provider for them. This thesis agrees with the latter argument, claiming that architecture has autonomous qualities, with its capacity to make decisions and assessments with its internal rules and orders for its own form, and with its capability to transform external features into its own domain, as well as fulfilling them. For that reason, this thesis argues

[15] Stanford Anderson. "Quasi-Autonomy in Architecture: The Search for an In-Between," Perspecta: The Yale Architectural Journal. vol. 33, 2002, pp. 30-37.

that architecture's autonomy is a way of not only specifying the assessments of architectural form, but also determining the specialized situation of the architect.

The method of this thesis to examine architectural autonomy is due to two points of view, the first one evaluating architecture in terms of its disciplinary boundaries and relationships, and the second, considering architecture's potential by regarding it as a practice. This differentiation depends on the distinction that had been made by Stanford Anderson. Anderson differentiates the discipline and profession of architecture and states that the discipline of architecture is a growing body of knowledge.[16] The profession of architecture, on the other hand, is concerned with the current formation of practice. For that reason, as Anderson states, the discipline owns a more extensive range of practice.[17]

Consequently architectural autonomy will be discussed, in this thesis, both within the boundaries of the discipline, considering its relationships with external realities; and by means of the internal qualities of architecture practice. The external realities of architecture are considered as social, cultural, political, economic factors, that architecture has to fulfill. The internal qualities of architecture are considered as formal, functional, and tectonic values, referring to the practice of architecture. For that reason, autonomy of architecture discipline, and autonomy of an architectural object will be evaluated separately, by regarding the design process, evaluation and analysis, and architectural production modes.

These internal and external realities will be discussed within the framework of Modern Architecture. The first thirty years of the twentieth century are

[16] http://home.worldcom.ch/~negenter/020bMultidiscipArchHTx1.html.
[17] Ibid.

considered to constitute a turning point in discussing architecture's disciplinary boundaries, when technological inventions, industrial advances and societal modernization had influenced the production of architecture. Examining architecture of the twentieth century is significant, because with the social and technologic developments, the role of the architect had changed. The invention of reinforced concrete and iron had caused important changes in the practice of architecture. Besides those, relationships of architects with their clients and their co-workers from other disciplines had started to be questioned and the role of the architect as a professional had already begun to change.

Besides investigating different points of view on the notion of autonomy, this study examines architectural autonomy in relation to aesthetics and tectonics. The development of modern forms and construction methods, and their implications and connotations into architecture's vocabulary, will be discussed. Therefore, the technological inventions and new techniques and materials, and their architecturally significant properties will be mined. The emergence of iron and reinforced concrete, and aesthetics of these new materials and techniques are going to be examined. The method of this thesis attempts to raise significant concepts that were revealed in the early twentieth century by the avant-garde architects, especially by Le Corbusier, interpreting these particular concepts in today's present situation of architecture. This period is considered important because it was the time when certain changes in the design process had occurred, and the positions of the architects had changed. After modernity, architects became more independent in terms of both their constructional elements and the relations of the discipline with external facts.

Concerning these conceptions and changing conditions of architectural autonomy, the issues will be examined through a case study, Maison Curutchet, by Le Corbusier. With this significant architectural work, the relationships of architectural elements, and the internal knowledge and tools are scrutinized.

Architectural autonomy is regarded important in this thesis on account of many noteworthy reasons for the discipline. Discussing autonomy is important to develop "form" with "architecturally significant" principles that refer to architecture itself. This conversation legitimizes the architects' capacity to evaluate and judge architectural products with architecture's own knowledge, and to define architecture with the discipline's own realities.

This investigation on autonomy enables to evaluate architecture, as a multi-dimensional discipline, in terms of many levels, such as; conceptual, social, artistic, intellectual, scientific, utilitarian, and professional levels. It is possible to assess an architectural work by means of its external and internal realities. It could be evaluated as an art object, having its own aesthetic criteria and internal knowledge. Architecture's technical devices and their effects of form could also be evaluated; its social and functional necessities and outcomes could be examined through the space and form that it represents. On the other hand, architecture could be regarded as a profession, as a part of a teamwork.

The role of the architect of the twentieth century could also be investigated in many ways, such as, an artist/designer – who searches for aesthetic characteristics -, as a professional/businessman – who works with users and other professionals -, or as an intellectual – having theoretical conceptions and dealing with realities.

This multi-dimensional condition of architecture will be examined in this thesis with respect to the modernization process. The discipline's boundaries after modernity will be scrutinized with relation both to the modern technological inventions and to social and cultural modernization. The development of architectural space and form with regard to utilitarian and aesthetic points of view will be questioned in light of the modernization process.

CHAPTER 2

ARCHITECTURE AND AUTONOMY

The discussion for the autonomy of architecture, which indicates the idea of an architecture having its own internal logic and inherent, legible formal characteristics, is commonly raised with the intention of providing self-consciousness of the discipline. It is necessary to search for architectural autonomy in order to comprehend boundaries of the discipline, and consequently, to evaluate architecture with its internal qualities. These internal qualities of architecture are considered as architecture's tools and elements such as form, function, and structure; and architecture's aesthetic and tectonic qualities.

As already mentioned previously, architectural autonomy is examined, in this thesis, in terms of two points of view; regarding architecture as a discipline and a practice. Architecture's concerns as a practice – that connotes to its substantial existence – will be examined in the following chapters, by dealing with architecture's form in relation with other elements such as function; in this part of the thesis, on the other hand, architecture's potentials and relationships as a discipline will be discussed.

As stated previously, Stanford Anderson differentiates the concept of "discipline" from that of the "profession" of architecture. Anderson assesses the discipline of architecture as a "collective body of knowledge that is unique to architecture and which, though it grows over time, is not delimited in time or space."[18] The profession, for Anderson, on the other hand, is related with the temporal and existing conditions of architecture. With this differentiation, Anderson draws attention to the importance of the definition of the "discipline," as a "collective body of knowledge," which has a timeless and spaceless character.[19] Depending on Anderson's differentiation, the discipline of architecture could be considered to have its production of knowledge, which is independent from any particular time or space, and yet cultivates with different experiences.

While examining architecture as a discipline, it is important to contend with architecture's relationships with many external realities and other disciplines, in order to evaluate its boundaries as a discipline. In view of that, K. Michael Hays mentions about the concept "semi-autonomy," which Louis Althusser had revealed, with the intention of evaluating the concept autonomy in terms of disciplinary levels. Hays states:

> At a different level of autonomy thesis there appears a key concept from Louis Althusser, that of the "semi-autonomy" of "levels" or "instances" within an ideological field – the economic, political, juridical, cultural, aesthetic realms (and so on). The autonomy of each disciplinary level allows the development and advance of that discipline's particular techniques. But each level also feels pressure from all the others and exerts influence on all the others. What results is a set of insides and outsides that are reciprocally constituted and related by way of their ultimate

[18] http://home.worldcom.ch/~negenter/020bMultidiscipArchHTx1.html.
[19] Ibid.

> structural difference and distance from one another rather than their identity, all held together by the "structural totality" of a social formation.[20]

As Hays points out, the discipline of architecture has many levels, some of which have interior properties, and others communicating with exterior realities and disciplines. Those different levels have relations with each other, which together result with architectural form and space, and yet constitute a "social formation," that Hays points to. When architecture is regarded as a discipline or as a "collective body of knowledge," it gains its significance in the society to have the potential of being both the consequence and the inventor of social ideals. With its many levels that communicate with social and cultural realities, architecture cannot be completely independent from social concerns. Accordingly, Anderson, who evaluates architecture's autonomy by introducing the concept "quasi-autonomy," mentions about the various levels of autonomy status, with regard to its relationships with external realities and other architectural elements. As a discipline, as Anderson states, architecture cannot be totally freed from function and exteriorities; and on the other hand, it cannot operate totally functionally.[21] Anderson goes on to say that "what we have is a spectrum that has to be analyzed for the attitudes of the architects, for the response that we expect relative to a particular kind of problem that the building is addressing."[22] Within the concept of "quasi-autonomy," Anderson evaluates architectural autonomy in terms of a range of possibilities that may reveal in the different levels of design. These possibilities may be revealed in different ways – may or may not have autonomous qualities – as

[20] K. Michael Hays, "Prolegomenon for a Study Linking the Advanced Architecture of the Present to that of the 1970s through Ideologies of Media, the Experience of Cities in Transition, and the Ongoing Effects of Reification," Perspecta: the Yale Architectural Journal. vol. 32, 2001, pp. 100-107.
[21] Stanford Anderson. The Harvard Architectural Review, vol. 1, 1980, p. 194.
[22] Ibid.

a result of the architects' intentions when using their tools, and of the social and cultural circumstances that the building needs to fulfill.

Architecture receives its knowledge by interrelating with external fields and transforming them into its own domain; and therefore, it is necessary to examine the position of architecture in relation to other disciplines to define its own potentials and boundaries.

2.1 Boundaries of the Discipline of Architecture

When regarded as a discipline, it is necessary to evaluate architecture with regard to its various interrelationships. The discipline of architecture has a multi-dimensional character, which assimilates with many theoretical and practical realities. It is possible to consider architecture as an art, a profession, a science, or as a discourse; and therefore, it is possible to evaluate an architectural work by means of its many levels; such as its conceptual, artistic, intellectual, and utilitarian levels. An architectural work could be evaluated as an art object; having its own aesthetic characteristics, or as a cultural product; reflecting the conditions of the society, or as a utilitarian apparatus; satisfying the necessities of intended functions. Not only the tectonic properties but also the theoretical origins of it could be assessed. For that reason, boundaries of the discipline have always been debated by architectural critics and historians, by considering its different levels.

Accordingly, Alvaro Siza points to the multi-dimensionality of architecture and states:

> We developed the idea that the architect is a specialist in nonspecialization. Building involves so many elements, so many techniques, and as such different kinds of problems, that it is impossible to command all the requisite knowledge.

> What is required is an ability to interrelate diverse elements and disciplines. Because architects have a broad overview and are not constrained by concrete knowledge, they are able to connect various factors and maintain the synthesizing capacity of nonspecialization. In this sense the architect is ignorant, but he is able to work with many people and coordinate the integration of a vast number of particulars.[23]

Following Siza's argument, it could be stated that architecture can be conceived as a body of knowledge, instead of being an immediate appearance. This knowledge could be introduced by other disciplines or produced by internal logic of design. It is important, then, to regard architectural knowledge by evaluating it in terms of its interrelations between the disciplines. In view of that, Stanford Anderson's definition of discipline could be conceived as a guide to observe architecture's interrelations. Depending on this definition, we can argue that architecture discipline - as a growing body of knowledge - receives its data from both internal and external relationships.

2.2 Architecture's Instrumentality and the Significance of the Social Context

Architecture serves for the societal necessities on the one hand, and yet is nourished by the social context on the other. Consequently, it is possible to argue that like architecture – as a part of culture –, social context should have its representation in architectural knowledge also. Architectural culture consists of many interrelating information from both internal and external matters.

[23] Kenneth Frampton makes this quotation from Alvaro Siza in the article, "Seven Points for the New Millennium: an Untimely Manifesto," The Journal of Architecture. vol. 5, Spring 2000, p. 22.

Diana Agrest, in her article "Design versus Non-Design," questions the relationships between the discipline of architecture with other disciplines and culture, and searches for architectural autonomy in these relations. She states:

> Design, considered as both a practice and a product, is in effect a closed system - not only in relation to culture as a whole, but also in relation to other cultural systems such as literature, film, painting, philosophy, physics, geometry, etc. Properly defined, it is reductive, condensing and crystallizing general cultural notions within its own distinct parameters. Within the limits of this system, however, design constitutes a set of practices - architecture, urban design, and industrial design - unified with respect to certain normative theories. That is, it possesses specific characteristics that distinguish it from all other cultural practices and that establish a boundary between what is design and what is not.[24]

Agrest points to the relationships of architecture with culture and other disciplines, or "other cultural systems," classifying architecture as one of these "cultural systems." Being "both a practice and a product," as Agrest argues, architecture not only is defined by the "cultural codes" of the social context, but also serves for this social context as a cultural product.

Within Modern architecture, the role of the architect is regarded both as an agent that mediates between architecture and the external realities, and as an artist that operates the formal qualities of architecture. In the former, the architect receives his/her data from the basis that is present within the surroundings. The determining factors exist in the culture, which architecture is a part of. In the latter, on the other hand, the architect obtains his/her information according to the rules that derive from architecture itself. Form is developed from the aesthetic

[24] Diana Agrest. "Design versus Non-Design," Architecture Theory since 1968. ed. by K. Michael Hays, Cambridge, Massachusetts: MIT Press, pp. 198-213.

evaluations of the architect, having further connotations, which are architecturally significant.

The question of architectural autonomy had re-appeared after the late 1960s, when the situation of the discipline had changed as a result of the consumption culture. Architecture had lost its specificity, and for that reason, in 1970s, the search for architectural autonomy became an apparatus to maintain architecture a social character.[25]

Accordingly, Hays points to the significance of the year 1968, and the importance of the discussions of architectural autonomy, and states:

> While the ideology of autonomy is properly part of the legacy of modernism, dating from as early as the Enlightenment, the concept gained a renewed resonance in the formation of architecture theory after 1968… This was a time when architecture as traditionally practiced saw itself threatened by technological optimization and utilitarianism, by the demands placed on it as a service industry, as well as by the positivist inquiries of the behavioral sciences, sociology, and operations research, all of which threatened to undermine the specificity of architecture. Architecture theory drew on various models in an effort to think architecture back into its own as a discipline, a cultural practice, and an irreducible mode of knowledge and experience (an epistemology).[26]

By pointing to the significance of architecture theory that had increasingly developed after 1968, Hays draws attention to the then existing position of architecture discipline being under the influence of external realities, such as social, technical and industrial investigations and necessities. Hays puts emphasis on the

[25] K. Michael Hays and Lauren Kogod. "Twenty Projects at the Boundaries of the Architectural Discipline Examined in Relation to the Historical and Contemporary Debates over Autonomy," Perspecta: The Yale Architectural Journal. vol. 33, 2002, pp. 54-71.
[26] K. Michael Hays, "Prolegomenon for a Study Linking the Advanced Architecture of the Present to that of the 1970s through Ideologies of Media, the Experience of Cities in Transition, and the Ongoing effects of Reification," Perspecta: the Yale Architectural Journal. vol. 32, 2001, pp. 100-107.

influential effect of the theory of architectural autonomy, in maintaining architecture's position as a discipline having specificities in the social formation.

It is possible, then, to evaluate an architectural work both as the product of the network of social, cultural and functional necessities, depending on the relationships between them, and as an artistic formation of the architect, having internal characteristics as well. Accordingly, Alan Colquhoun, in his article "Symbolic and Literal Aspects of Technology," emphasizes these characteristics of architecture, and states:

> There is a tendency in criticism to distinguish between utilitarian and moral criteria, on the one hand, and aesthetic criteria, on the other. According to this conception, aesthetics is concerned with "form," while the logical, technical, and sociological problems of building belong to the world of empirical action. This distinction is false, because it ignores the fact that architecture belongs to a world of symbolic forms in which every aspect of building is presented metaphorically, not literally. There is a logic of forms, but it is not identical with the logic which comes into play in the solution of the empirical problems of construction. The two systems of thought are not consecutive but parallel.[27]

Colquhoun examines architecture's position between being a cultural product and a self-ruling discipline. His emphasis on architecture's capacity of symbolic representation is to reveal its characteristics that transform necessary data into an idea more than an information. Depending on this idea, it could be argued that architects adapt social, functional, and technical necessities into architectural ideas, and forms. For that reason, it could be stated in this thesis that architectural forms could be evaluated not only as the representations of the "cultural codes" that surround them, but also as contexts in themselves that have architecturally

[27] Alan Colquhoun. Essays in Architectural Criticism: Modern Architecture and Historical Change. Cambridge, Massachusetts: MIT Press, p. 28.

significant characteristics. These internal characteristics are generated by the architect who transforms these "codes" into the field of architecture with the tools of architecture itself.

This aspect of architecture is evaluated by many critics who investigate the poles of architecture as discipline. Juhani Pallasmaa examines the architect's role in the article "The Social Commission and the Autonomous Architect, the Art of Architecture in the Consumer Society." Pallasmaa states that "[a]rchitecture is culture-bound and autonomous at the same time."[28] Palasmaa claims that architecture is in relation with the social and cultural conventions; however, the artistic feature happens on an "autonomous mental level." Thus, the author continues to say; "[a]rchitectural expression takes place on two levels, the surface level of conscious intentions and symbols and the deep-structure level of unconscious objectives and imagery."[29]

Architecture's two levels; the design process and the final form, enables it to have both cultural and visual properties. In the design process, the architect collects information from the social, technical and functional realities. In the form-making stage, the architect uses his/her tools of aesthetic and tectonic qualities to transfer this information into architectural form. The aesthetic and tectonic qualities of an architectural product do not destroy the ideas behind it.

Considering architecture both as a formal product and as a cultural act, it is important to question architecture's capacity in transforming the culture. If we

[28] Juhani Pallasmaa. "The Social Commission and the Autonomous Architect, the Art of Architecture in the Consumer Society," The Harvard Architecture Review. vol. 6, August 1987, p. 119.
[29] Ibid.

consider culture as a unifying system that a society gains its significant values and ideals, then architecture cannot be evaluated independent from these values and ideals. On the other hand, if architecture is considered as one of the formative sources of culture, then it is necessary to evaluate architecture with its own characteristics that are influential in the formation and transformation of culture. Being a part of culture, and yet serving for it, architecture has the potential to affect life styles, and therefore develop outlines for new lives.

In this regard, Stanford Anderson, in his article "Quasi-Autonomy in Architecture," emphasizes his conception of the discipline to have the potential of architectural form as a shaper of life. By examining Le Corbusier's Carpenter Center building, he draws attention to the social task of architecture in these words:

> First, he [Le Corbusier] made the building itself an active participant in the problem situation rather than a retiring, effortless framework. Secondly, the visitor and Harvard are forced to recognize that illiteracy about art is not a matter of vision alone. In this building art is not a spectator sport; all of one's senses and the whole of one's perception are engaged. One feels that the Carpenter Center is a world, a context, a problem, and we have the happy opportunity to form ourselves against it.[30]

In this examination, Anderson draws attention to the significant role of architecture and the architect to be a prospective outline, outline in terms of fundamental appearance, to generate new capacities. Therefore, it could be interpreted from this argument; that architecture is regarded as a part of culture, not an independent part of it, but as a dependent part having the capacity to transform it. In that sense, Anderson defines architecture to be a potential figure, having new capacities.

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[30] Stanford Anderson. "Quasi-Autonomy in Architecture: The Search for an In-Between," Perspecta: The Yale Architectural Journal. vol. 33, 2002, pp. 30-37.

Another important aspect of architecture that Anderson reveals in the previous paragraph is the architectural product's having the ability to be a context in itself. Anderson defines the Carpenter Center as "a world, a context," and this statement points to an architecture that has internal qualities.

As Anderson states, architects have the capacity to develop "new ways" in designing space, with their own tools, such as form, space and light. By using their equipments, and by approaching autonomy, architects may generate new positions within the discipline. Accordingly, K. Michael Hays reveals a different point of view in discussing the position of architecture within the cultural circumstances. Hays questions architecture's position in his article titled "Critical Architecture: Between Culture and Form," by evaluating it both as an instrument of culture, and as autonomous form.[31] When evaluated as a cultural instrument, Hays defines architecture as a "functional support for human institutions" and helpful to maintain cultural continuity. Within this point of view, architecture is seen as an "already completed" entity, having no further qualities internal to itself. On the other hand, Hays discusses architecture as autonomous form, by revealing it as a spontaneous and internalized appearance, that has no reference to the circumstantial reality. This approach reduces architecture's significant role and capacity in the formation of culture. Alternatively, Hays proposes a different point of view in determining architecture's location between external and internal values; which he defines as a "critical architecture" that is "worldly and self-aware" at the same time. This approach prevents architecture to be diminished to the mere representation of circumstantial necessities or to a fixed, reproducible formal system. That kind of

[31] K. Michael Hays. "Critical Architecture: Between Culture and Form," Perspecta: The Yale Architectural Journal. vol. 21, 1984, pp. 14-29.

position, which involves both cultural and formal values, as Hays states, distinguishes architecture from the external factors that affects it, and maintains its significant character in the culture.[32] With this quality, architecture gains its importance in originating and extending cultural knowledge, and the architect gains his/her significant role as a social actor in the cultural formation. Accordingly, Kenneth Frampton refers to Vittorio Gregotti's argument on architecture to be between an autonomous discipline and a cultural product and states:

> As Vittorio Gregotti pointed out some time ago, architectural practice requires for its realization, societal need, technological mediation and constraint in order to exist at all, even if the 'rules' for the development of the discipline at an intrinsic level can only be found within architecture itself.[33]

As Frampton draws attention, it is obvious that an architectural product needs to be bound to the social context, in addition to its autonomous, self-regulating characteristics that are significant to itself.

As a result, architecture's relationships with the social context, and its instrumentality have been discussed; however, this thesis still argues that architecture has autonomous qualities independent from the external realities. In fact, the concept of autonomy is considered important in gaining architecture its social and cultural position. In view of that, Hays draws attention to the concept of autonomy in terms of the specificity of the discipline, and states:

> …architecture's autonomy must be understood as a relational concept, not as an isolationist position. The terms of its relation to consumer culture – which involve nonidentity and negation as well as autonomy – is tantamount to a clearing

[32] Ibid.
[33] Kenneth Frampton. "Seven Points for the New Millennium: an Untimely Manifesto," The Journal of Architecture. vol. 5, Spring 2000, pp. 21-33.

> of space for alternate conceptions of social relations and subject formations. If architecture loses its autonomy, it loses the specificity of its cultural intervention.[34]

What Hays puts emphasis on is the significance of architectural autonomy not as a property that connotes to a separation from the society, but as a conception that provides associations. Hays exposes the theory of autonomy as an instrument to increase architecture's specific position in the society. Within this conception, as Hays states, architecture should be evaluated not as a "passive agent of culture" that merely reflects the dominant social and historical forces, but as an active entity that has a cultural place "as an architectural intention with ascertainable political and intellectual consequences."[35]

In accordance with Hays's conception, this thesis aims to argue that architecture, as a discipline, is a cultural act, a social product, and has interrelations with both other disciplines and the social context. Consequently, when regarded as a discipline, it could be argued that architecture is semi-autonomous, which has a social presence. Nevertheless, when evaluated as a practice, architecture has autonomous values in terms of its interior qualities. In the following chapters, architecture's internal tools and elements, and autonomous qualities will be examined, by considering its characteristics as a practice.

[34] K. Michael Hays, "Prolegomenon for a Study Linking the Advanced Architecture of the Present to that of the 1970s through Ideologies of Media, the Experience of Cities in Transition, and the Ongoing effects of Reification," Perspecta: the Yale Architectural Journal. vol. 32, 2001, pp. 100-107.

[35] K. Michael Hays. "Critical Architecture: Between Culture and Form," Perspecta: The Yale Architectural Journal. vol. 21, 1984, pp. 14-29.

CHAPTER 3

THEORETICAL FRAMEWORK OF AUTONOMY WITHIN MODERN ARCHITECTURE

Architectural autonomy is one of the important issues that has been significantly discussed throughout the Modern period. Architectural Modernity had revealed the question of autonomy, more than any other period, as a dominant theme. The role of the architect, and his/her tools, and freedom in the design process had started to change with the emergence of the new era. These issues have been discussed as a result of the shift not only in architecture but also in the societal conditions. With the manifestation of architectural Modernity, architecture has started to be considered to have the capacity to be a catalyst in the transformation of the society, as well as being the product of the society. In this chapter of the thesis; consequently, architectural autonomy will be discussed within the framework of Modern Architecture; regarding the scientific and technological inventions, and the social modernization as the important determining factors. Architecture's internal elements; such as form, function, and structure, and its internal qualities; such as aesthetics and tectonics will be discussed within this chapter.

3.1 Modernity and the Shift in the Discipline of Architecture

The beginning of the twentieth century was the very influential time for architecture, when avant-garde architects questioned and re-defined the tools of the architects and boundaries of the discipline. In this part of the thesis, architectural autonomy will be examined in terms of the relationships between architectural elements such as form and function, and in terms of the role that the technological advances play within the framework of modernity. The early twentieth century is considered important, by means of the changes which occurred by then. Architectural autonomy and disciplinary boundaries will be investigated throughout the remarkable shift happened in the early modern period. Not only the developments in technology, but also the transformations in the society's life styles had affected the theory and practice of architecture. Many architects had revealed revolutionary theoretical works by which they attempted to change the production of architecture of the new era. While those theoretical works manifested the newly emerging concepts and issues, architects had started to produce architectural designs that celebrated the demonstration of the innovative applications of the architecture of the twentieth century.

3.1.1 Modern Science and Technology, and Modernization of the Society

The architecture of the Modern period has been regarded to be influenced and originated by the developments that took place in science and technology, modern industry, and the newly emerging modes of production. Stanford Anderson informs on the significance of the Great Exhibition of 1851 in the Crystal Palace, on

the development of Modern architecture, by means of the influence of the modern industry, new materials and production methods.[36] Anderson claims that this event had caused influences in reassessing "the condition of culture and society in relation to new productive systems and environment they produced."[37] While involving into the social and cultural circumstances, these developments in modern industry and production methods had affected society's life styles. These transformations and modernization of the society had resulted as a new style in architecture. This new mode of architectural production opened new horizons in producing space and form in architecture. The shift in the design process made possible for the architects to redefine the potentials of architecture discipline.

The idea of Modern Architecture has been evaluated with certain determining factors in addition to the industrial and technological developments such as the re-questioning of the past, aesthetic ramifications of technological advances, and developments in the other arts. William Curtis exposes these factors as:

> Rationalist approaches to history and construction; visual and philosophical concerns with mechanization; attempts at distilling certain essentials from tradition; moral yearnings from honesty, integrity and simplicity; interpretations of new institutions and building types in major industrial cities; aspirations towards internationalism and 'universality'.[38]

Curtis includes this development of the idea of Modern Architecture the influence of Cubism and abstract art; in terms of its effect in spatial conception.

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[36] Stanford Anderson. Peter Behrens and a New Architecture for the Twentieth Century. Cambridge, Massachusetts: MIT Press, 2000, p. 95.
[37] Ibid.
[38] William J.R. Curtis. Modern Architecture since 1900. Oxford: Phaidon, 1987, p. 149.

As a result of these important driving forces, architecture of the twentieth century produced new forms and spaces, which are principally different from those of the previous architectural periods. Architects had searched for modern forms in the integration of a utopian future, which suggest brand new techniques, and of the valuable past, which has its origin in rationality. Architectural Modernity, which is associated with the developments of modern science and technology, had re-defined disciplinary boundaries and knowledge within it. The invention of iron and reinforced concrete had conveyed both technological and formal issues in architecture. The technological significance is the disengagement from the traditional construction techniques and processes and the establishment of the new construction processes in the architectural production; the formal significance is the shift in the form making process that is freed from certain constraints of classical norms. Alan Colquhoun emphasizes the importance of technology in Modern Architecture, and states:

> In it [Modern Architecture] the new technology was an idea rather than a fact. It became part of its content as a work and not merely or principally a means to its construction. Our admiration of the buildings it created is due more to their success as symbolic representations than to the extent to which they solved technical problems. However much the materials they used were conceived to be the products of the machine techniques, these architects never regarded them as "ready-mades" but adapted them to a preconceived plastic form, even though this form itself was triggered by a notion of machine technology. One might quote as an example Le Corbusier's use of the curtain wall, in which the glazing bars are so profiled and proportioned as to preserve the integrity of the plane and to create the feeling of a tight skin stretched over the entire surface of the building.[39]

[39] Alan Colquhoun. Modernity and the Classical Tradition. Architectural Essays 1980-1987. Cambridge, Massachusetts: MIT Press, 1989, p. 28.

Colquhoun argues that technology has an important part in the formation of the Modern Architecture's vocabulary and the development of modern form and space, not merely as a tool to solve practical problems, but also to participate as a data, "an idea," in the design process. It is important in Modern Architecture, then, to consider new technological advances not simply as naïve technology, but as a catalyst to the production of modern architecture. Thus Colquhoun points to the importance of technology for modern architecture and society, and states:

> In this claim, the ideology of modern architecture dictated the necessary autonomy of architecture required an idealization of technology and its role in the anticipation of a new utopian society. Modern form, then, emerged "naturally" from the new technologies of the modern world.[40]

Colquhoun points to the role of technology in the development of modern form and its consequences in the society.

As a result of the technological advances, modern industry, and new modes of production; the elements of architectural design process had altered, and consequently, spatial and formal characteristics of architecture had changed.

3.1.2 Architectural Form and Space after Modernity

Even though much of the technological developments had occurred in the nineteenth century, it is significant, for this thesis, to scrutinize the architectural issues of the twentieth century, namely the Modern period. During the nineteenth century, new materials such as iron and reinforced concrete had started to be employed; however, the aesthetic connotations and spatial outcomes of them had significantly revealed in the architecture of the twentieth century.

[40] Ibid.

Modern architecture had employed scientific inventions and technological developments by changing their modes of construction. Instead of using new advances as naïve technology, Modern architects used them to suggest a new understanding in the production of form and space. This new production provided more freedom in aesthetics, and proposed new spatial properties. The beginning of the twentieth century celebrated the aesthetics of reinforced concrete and iron, by principally transforming the formal vocabulary of architecture. This new vocabulary proposed variety and independence in architectural form, by freeing the elements of architecture (structural, functional, tectonic). Furthermore, the spatial characteristics of the twentieth century had also been differentiated from that of the previous architecture. From then on, it became achievable to design wider spans and bigger structures. These new technical developments in twentieth century architecture enabled architects to design in unconventional ways, which differentiate from the previous times, in terms of their aesthetic and tectonic characteristics. And therefore, these characteristics had resulted with different forms, functions and spaces.

Fig. 1 Gerrit Rietveld, Schröder House.

(Source: http://www.greatbuildings.com/cgi-bin/gbi.cgi/Schroder_House.html/PCD.8203.3241.1525.090-2.gbi)

Fig. 2 Walter Gropius, Gropius House.

(Source: http://www.bc.edu/bc_org/avp/cas/fnart/fa267/gropius.html)

3.2 The Relationship between Architecture's Form and Requirements

Architectural form has always been considered as the substance that the external realities and the functional requirements are realized. Being the mediating substance, and yet, the final emergence, architectural form transcends satisfying these requirements and has additional values that refers to architecture itself. Form has always been one of the significant elements of architecture, evaluated either as the outcome of architectural ideas, or having direct relationships with function, or reflecting the conditions of the society.

The architecture of the twentieth century had suggested new relationships between architectural elements such as form, function, and structure. This important shift affected the aesthetic and spatial characteristics of the new architecture; and consequently, the design process. With the newly emerging techniques, the architect was going to rediscover the boundaries of his/her own discipline. In fact with the development of new architectural concerns, form had become more independent. Modern Architecture untied the "skeleton" from the "skin," and this feature allowed architectural form to feel more freedom. In that sense, it is considered as a conceptual shift, which made architects employ their elements (such as structure, façade, plan) different from those in the previous times, and generate forms that are more independent. With the architectural form, spatial conception and the use of materials had also changed, as a result of this shift.

The relationship between form and function has always been an important issue in architecture. Throughout the Modern period, many theories had developed concerning this issue, which had questioned the issue of form and function in

architecture. It is important, therefore, to evaluate the role of form and function in architecture, regarding their possible relationships within Modern architecture.

3.2.1 The Freedom of Form from Function

The relationships between form and function is one of the main concerns of Modern Architecture, similar to the previous periods. Many theories had been developed among which is functionalism, which argues that form can only be determined by function. Alternatively, this thesis searches for the internal values of architecture that are separated, but not freed, from external determinants, and other internal elements such as function. Function is one of the effective factors in generating form; however, it is not the only determinant, and yet, not sufficient.

Stanford Anderson, in his article "The Fiction of Function," examines the role of function in the form making process and states:

> My argument will be "functionalism" is a weak concept, inadequate for the characterization or analysis of any architecture. In its recurrent use as the purportedly defining principle of modern architecture, functionalism has dulled our understanding of both the theories and practice of modern architecture... Thus I wish first to argue that, within modern architecture, functionalism is a fiction – fiction in the sense of error.[41]

Anderson states that function is a weak concept in determining form in architecture and draws attention to the work of leading modern architects; such as, Adolf Loos, Le Corbusier, Louis Kahn and Alvar Aalto, in terms of their production of form. As Anderson states, these modern architects were aware of the potentials and various interpretations of life and architecture, by which "they challenged themselves to find how architecture could serve the people of their cultures in their

[41] Stanford Anderson. "The Fiction of Function," Assemblage, No.2. pp. 19-20.

times."[42] Function cannot be the only determinant of architectural form; but rather, it is one of the factors that the architect needs to satisfy in the design process. Form and function is evaluated in this thesis as internal elements of architecture, which have no direct relationship with each other. Accordingly, Anderson states that, "No description of function, however thorough, will automatically translate into architectural form."[43] Following Anderson's argument, function could be considered as one of the internal qualities of architecture that has effects on the form-making process; however, it cannot be directly transformed into architectural form. There is no one-to-one association between function and form; but rather, there is the conversion of function with form. In this regard, Le Corbusier makes a distinction between the "function beauty" and "function utility" and continues to say:

> I immediately reestablished equitable balance by adding: "the function beauty is independent of the function utility; they are two different things. What is displeasing to the spirit is wasteful, because waste is foolish; that is why the useful pleases us. But the useful is not the beautiful." If we leave the realm of the plastic arts to investigate the effects of Sachlichkeit on the benefits of comfort, that is to say, to see to what degree we are satisfied by the progress of mechanization, I would argue as follows: mechanical luxury is not at all a direct function of happiness. Think of those rich people who possess everything; they automatically adapt, deriving no pleasure at all from their possessions.[44]

Even though Le Corbusier points to the notion that modern architecture and its devices have to be functional, he includes this idea of functionality the spiritual and artistic values. Le Corbusier indicates that the "functional" is useful, and

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[42] Ibid.
[43] Ibid., p. 22.
[44] Le Corbusier. "In Defense of Architecture," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by K. Michael Hays, New York: Princeton Architectural Press, 1998, pp. 599-614.

therefore pleases; however, the merely useful does not have artistic values, and therefore does not satisfy. For that reason, as Le Corbusier states, an architectural product has to fulfill its function, but furthermore, it needs to transcend its function and have aesthetic values. Depending on this conception, form and function could be regarded as internal elements or qualities of architecture, each of which has effects on the other. As a consequence of this relationship between form and function, form gains its significant characteristics by deploying function independently.

Alternatively, Peter Eisenman poses architectural elements to have additional meanings beyond their function and states that this aspect of architecture distinguishes it from "building." Eisenman claims that this distinction 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, and the existence of extrinsic meaning there would be no conditions which would require such an intentional act of overcoming.[45]

Eisenman intends to give the functional elements of architecture additional meanings that enable them to become architecturally significant. With this intention, he declines the traditional associations between architectural form and function.

As a result, it could be argued that function is one of the significant factors that affect architectural form; however, it cannot be the only determinant.

[45] Peter Eisenman. "Aspects of Modernism: Maison Dom-ino and the Self-Referential Sign," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 188-199.

3.2.2 The Unlimited Ways of Creating Form in Architecture

With the developments occurred in science and technology, the emergence of new modes of production, the inventions of new materials and their aesthetic and spatial consequences, architecture of the Modern period had suggested a more free and fruitful form-making process. By questioning and re-defining their elements, architects of the modern times had used aesthetic and tectonic qualities differently. Modern architects had generated new forms, depending on their new use of structural and constructional elements.

As we have seen previously, these new structural and constructional opportunities, that are revealed with modern technological inventions, made possible for the architects to generate architectural forms independently. In that sense, Alan Colquhoun points to this aspect of Modern Architecture and states that; "[t]he main difference between modernist and classical composition is that in the former there is a high degree of freedom in the relationship between the parts. It is not so much that the elements themselves are infinite."[46] Colquhoun argues that the infinitive value of modern architecture's formal vocabulary does not derive from the endlessness of the elements themselves; but rather, the unlimited ways of combination of themselves. He continues; "It was their possibilities of combination that were infinite, since the rules for these were topological (they were "kinds of" relationships.) The rest was up to the free invention of the architect."[47]

[46] Alan Colquhoun. Modernity and the Classical Tradition: Architectural Essays, 1980-1987. Cambridge, Massachusetts: MIT Press, 1989. p. 35.
[47] Ibid.

Modern architecture achieved to produce these "possibilities of combination," that Colquhoun draws our attention to, with the use of the newly emerging technologies and aesthetization of them. With their revolutionary manifestations of the architecture of the new era, modern architects had searched for unlimited variations and innovative multiplicities in architectural form and space.

In his design for A.E.G. Turbine Factory, for instance, Peter Behrens had given architectural significance to a factory, by using an innovative structure of reinforced concrete, glass and iron. The way he used the new technology enabled him not only to satisfy functional necessities with a huge span, but also to represent modern formal values. Stanford Anderson draws our attention to certain material conditions of the factory, such as its very large dimensions, the industrial operations it needs to fulfill, and the necessity for durability, in order to reveal the difference in the architectural production, and states that those features made the architect use different materials and design differently.[48] Behrens achieved to create the plastic effect of the modern materials with the tectonic conception of the modern times. It is possible to regard his A.E.G. Turbine Factory Building as an important architectural production of new functional necessities, which has aesthetic values with reference to itself.

[48] Stanford Anderson. Peter Behrens and a New Architecture for the Twentieth Century. Cambridge, Massachusetts: MIT Press, 2000. p. 131.

Fig. 3 Peter Behrens, Detail, AEG Turbine Factory.
(Source: http://www.arthistory.upenn.edu/spr01/282/w4c2i08.htm)

Fig. 4 Peter Behrens, AEG Turbine Factory.

(Source: http://www.engr.psu.edu/deutschlandsarchitektur/berlin/bauten/aeg-turb.html)

Being one of the most influential architects of modern architecture, Ludwig Mies van der Rohe recommended brand new occasions in architectural form and space. In 1920s, Mies had developed an inventive proposal for the skyscrapers of the twentieth century. By using glass and steel, in the Glass Skyscraper, Mies generates a diagrammatic work of the application of the new construction techniques. With this proposal, Mies achieved to re-formulate the elements of architecture such as skin and skeleton, vertical and horizontal components, solids and voids.

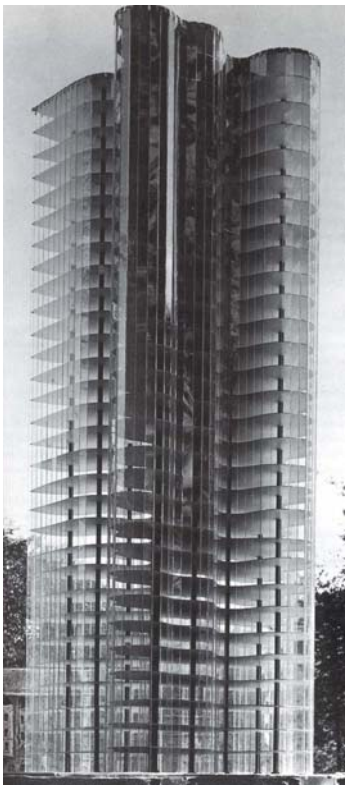

Fig. 5 Ludwig Mies van der Rohe, Model of the Glass Skyscraper.
(Source: http://caad.arch.ethz.ch/teaching/nds/ws98/script/object/st-object2.html)

K. Michael Hays examines Mies's innovative projects as an example of what he calls "critical architecture."[49] In addition to informing on the cultural values that reveal in Mies's architecture, Hays states that these innovative projects have further qualities that are internal to architecture. As Hays argues, Mies's glass-walled blocks could be constructed anywhere, without having associations with their contexts. Hays emphasizes that these blocks had been modified with the shape and size of their lot; however, as he goes on to say that; "the relentless sameness of the units and their undifferentiated order tend to deny the possibility of attaching significance to the placement or arrangement of the forms."[50]

Le Corbusier, as one of the most revolutionary architects of the twentieth century, had represented the aesthetization of the tectonic characteristics of modern era in his variety of designs. In Villa Savoye, as the most well known example, Le Corbusier achieved his purpose to design a house as a "machine for living in." In Villa Savoye, it is possible to find the functional fulfillment on the one hand, and the aesthetic connotations on the other. Independent from the successful achievement of its technical and structural properties, Villa Savoye has always been considered as an art object having further architectural values. These are not only the formal values, which have sculptural characteristics, but also the spatial values, which derive from the architect's use of the grid, free plan, and the unconventional relations between vertical levels. By making a comparison between the architecture of Le Corbusier and Behrens, Anderson draws attention to Le Corbusier's aim to

[49] K. Michael Hays. "Critical Architecture: Between Culture and Form," Perspecta: The Yale Architectural Journal. vol. 21, 1984, pp. 14-29.
[50] Ibid., p. 21.

discover new opportunities.[51] Different from Behrens, who had not seen architecture as a shaper of life, as Anderson states, Le Corbusier had presented an idea of "esprit nouveau" in his architectural designs.

Those characteristics are commonly used in the entire work of Le Corbusier, such as Unite d'Habitation, Ozenfant House, and the Shodan House, in which he re-questioned his elements that are functional, structural, representational, aesthetic or tectonic.

Fig. 6 Le Corbusier, Unite d'Habitation, Marseilles.
(Source :
http://www3.bk.tudelft.nl/scripts/architectuur/agram/fcard.asp?lookforthis=56&dir=corbu&pics=cb)

[51] Stanford Anderson. Peter Behrens and a New Architecture for the Twentieth Century. Cambridge, Mass.: MIT Press, 2000. p. 164.

Fig. 7 Le Corbusier, Villa Savoye

(Source: http://www.bc.edu/bc_org/avp/cas/fnart/Corbu/savoye4.jpg)

Fig. 8 Le Corbusier, Ozenfant House.

(Source : Kenneth Frampton, Le Corbusier, p. 45)

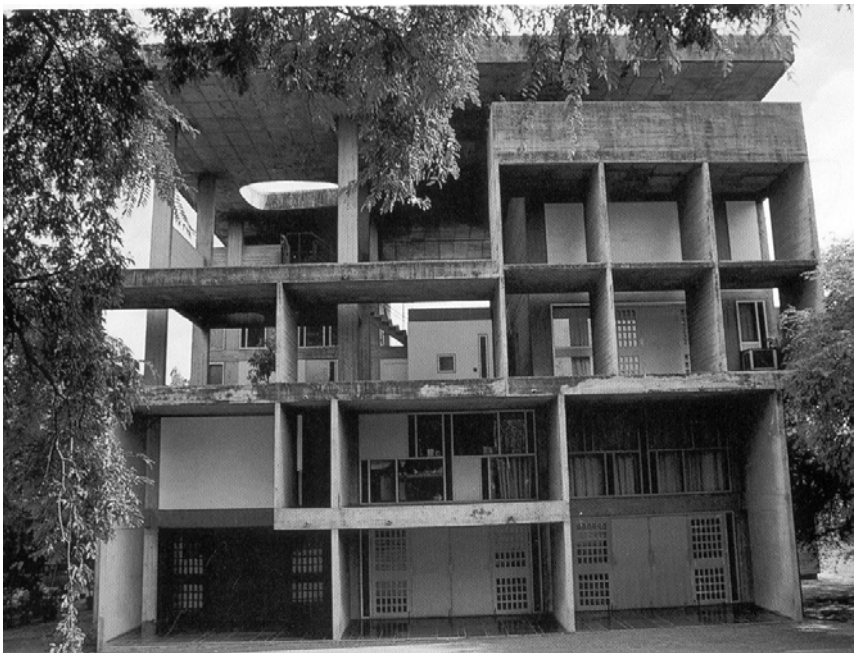

Fig. 9 Le Corbusier, Villa Shodan.
(Source : Klaus-Peter Gast, Le Corbusier, Paris-Chandigarh, p. 167)

Modern technology and new materials were important not only in terms of the development of the construction systems, but also in their use as artistic elements that transformed architecture to a more plastic art. The previously shown architectural works successfully exemplify the shift in architectural production, representing the aesthetic and tectonic consequences of the technological inventions of the modern era.

3.3 Aesthetics

Architectural form had been the source for the critics and historians to evaluate architecture both in terms of its cultural and functional manifestations, and in terms of its internal characteristics as well. Form has always been the basis for the debate of architectural autonomy. What are discussed within the framework of formal characteristics of architecture are the determining factors of form, by means of internal qualities such as the functional, structural, aesthetic and tectonic features, and external realities such as the social, cultural and economic circumstances. This thesis considers architectural form as an outcome of both the architect's fulfillment of social and functional requirements, and his/her own creative imagination. For that reason, architectural form is regarded as the appearance that architectural values could be evaluated. Nevertheless, this argument does not indicate that form is independent from the necessary conditions of external factors.

Accordingly, Alan Colquhoun, draws attention to modern architecture's consideration of form with function and idea, and states; "Form was no longer thought of as a means of expressing a certain idea, but as indissoluble from, and coextensive with, the idea."[52] Colquhoun's statement designates an understanding of form in Modernity, which represents the idea by interpreting it with internal values. Thus Colquhoun continues;

> Composition therefore was able to stand for an aesthetic of immanence in which art became an independent kind of knowledge of the world and was no longer,

[52] Alan Colquhoun. Modernity and the Classical Tradition: Architectural Essays, 1980-1987. Cambridge, Massachusetts: MIT Press, 1989. p. 34.

> as it had been both in the medieval and the classical traditions, the means by which certain "truths" or concepts were given rhetorical clothing.[53]

This consideration regards architecture's form as an independent feature, as that of any other art, having its own aesthetic values besides representing external realities.

It is possible to evaluate architectural designs as the product of creative imagination of the architect and assess the aesthetic characteristics of his/her designs. Le Corbusier had revealed, both in his buildings and in his writings, the aesthetic interpretations of functional and technical truths. He regards many modern and classical architectural forms as manifestations having formal connotations. According to Le Corbusier, Eiffel Tower, for instance, is an "aesthetic manifestation of calculation."[54] Le Corbusier considers Eiffel Tower as an "exceptional manifestation of architectural beauty, of the aesthetics of iron."[55] It is comprehensible, then, to separate architecture's aesthetic and utilitarian features by concerning architecture's form both as the product of cultural conventions and as an end in itself. Accordingly, as we have seen, Le Corbusier detaches the "function beauty" from the "function utility," declaring that satisfying the "function utility" is necessary, but not enough, when evaluating an architectural product.[56] To respond the functional requirements is architecture's task that has to become realized in spatial and formal phases, but on the other hand, the way that these requirements are satisfied reveals the immanent characteristics of architecture. Le Corbusier

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[53] Ibid.
[54] Le Corbusier. "In Defense of Architecture," Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture. ed. By K. Michael Hays, New York: Princeton Architectural Press, 1998, pp. 611-612.
[55] Ibid., p. 612.
[56] Ibid., p. 604.

expresses this potential of architecture by stating; "I am no longer speaking of the things that exist in a house, but of the way in which those things have been put together, that is to say, the way things have been "architectured"."[57] Following Le Corbusier's statement, it could be argued that the aesthetic characteristics of an architectural work reveal not only in terms of the practical presences of the elements, but rather in the way that they are internally regulated, or as Le Corbusier calls, in the way they are "architectured."

Le Corbusier embodied Modern Architecture's new potentials by formulating the technological innovations with his famous diagrams and manifestations. These new formulations are represented in his buildings of spaces and forms that have aesthetic interpretations. When stating that "the house is a machine for living in," he not only implies to technical possibilities, but also points to its aesthetic ramifications. This well-known expression of Le Corbusier involves both the potentials of new technologies of modern times, and aesthetic interpretations of them as well. Alan Colquhoun clarifies this expression and states:

> It was not to annex architecture to a branch of empirical science, but to use the machine as a model for a work of art whose form and structure were determined by laws internal to itself. The laws which applied to technology were different from those which applied to architecture, the first being directed to the solution of practical problems, the second to the creation of states of mind. In both cases, however, the desired results could only be obtained by understanding the laws which controlled their production. From this point of view Le Corbusier's famous statement can be interpreted as a metaphor for an aesthetic theory…[58]

As Le Corbusier does, it is legitimate to construe external realities of architecture, such as technical and functional necessities, within the knowledge of

[57] Ibid., p. 602.
[58] Alan Colquhoun. "The Significance of Le Corbusier," in Le Corbusier: the Garland Essays. ed. by H. Allen Brooks. New York: Garland, 1987.

architecture. Architecture had been considered as a discipline that unites both art and science; for that reason, it is significant in evaluating architectural form depending on both its artistic values, and its technical implications for the daily life. It is important in architecture, as Colquhoun states, to evaluate functional, cultural, and technological aspects of an architectural work, with architecture's knowledge and tools. By examining Le Corbusier's machine aesthetics, Colquhoun puts emphasis on the co-existence of art and science by pointing to the comparison of Parthenon and a modern automobile in the pages of "Towards a New Architecture."[59] These two examples had been brought together by Le Corbusier, with the intention of revealing their common properties such as order, and invariability. This comparison exemplifies the new aesthetics of the architecture of the modern times.

Fig. 10 Parthenon.

(Source: Le Corbusier, Towards a New Architecture, p. 125)

[59] Alan Colquhoun. "Return to Order: Le Corbusier and Modern Architecture in France, 1920-35," in Modern Architecture. Oxford: Oxford University Press, 2002, p. 139.

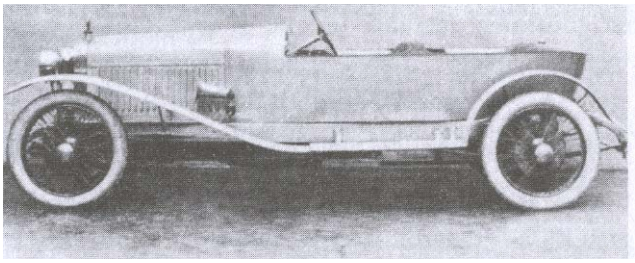

Fig. 11 Delage, Grand Sport.
(Source: Le Corbusier, Towards a New Architecture, p. 125)

In view of that, Colquhoun interprets Le Corbusier's machine as a "metaphor for an aesthetic theory," and continues by defining this metaphor and its internal qualities. He states:

> But the analogy made by Le Corbusier between a building and a machine was more than a poetic metaphor; it was based on the assumption of an ontological identity between science and art. For the first time - so we can construct the implicit argument - technology and architecture, reality and its representation, could be seen as converging. Technology, freed from the domination of the brute and intractable matter by the application of the scientific laws, was approaching the condition of immateriality…[60]

In most of his designs, Le Corbusier embodies this manifestation, and brings together both technological and artistic realities. In that way, he distinguishes architecture from being merely a utilitarian discipline. It is significant, in a work of architecture, to generate forms that transcend the specifics of a particular context, and represent timeless values of architecture itself. In view of that, Colin Rowe, in

[60] Ibid.

his essay “Mathematics of the Ideal Villa,” compares Palladio’s Villa Malcontante and Le Corbusier’s Villa Garches.[61] These buildings doesn’t have any common characteristics or context that enable them to be compared; however, Rowe makes this comparison by means of a universal evaluation of architecture, with architecture’s own tools and knowledge.

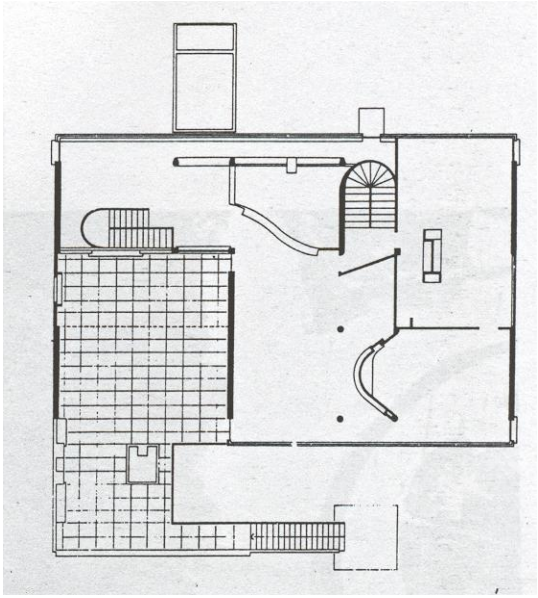

Fig. 12 The Plan of Villa Garches.
(Source: Colin Rowe, The Mathematics of the Ideal Villa, p. 21)

[61] Colin Rowe. The Mathematics of the Ideal Villa and other Essays. Cambridge, Massachusetts, and London, England: The MIT Press, 1995, p. 125.

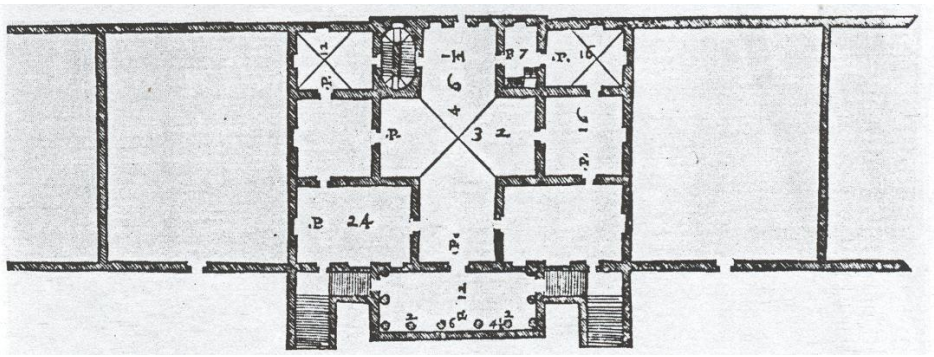

Fig. 13 The Plan of Villa Malcontante.
(Source: Colin Rowe, The Mathematics of the Ideal Villa, p.21)

Rowe's evaluation of these architectural works does not refer to any cultural context or time period. Quite the opposite, he does this evaluation by referring to architecture's own knowledge, which is independent of any context. This universal and timeless assessment of architecture is considered, in this thesis, as a convenient example of architecture's autonomous values.

Accordingly, Stanford Anderson examines architecture's internal values in terms of "types and conventions in time," and discusses architectural form according to its timeless character.[62] By investigating architectural types, with reference to Quatremere de Quincy, Anderson claims that architectural form has internal values separated from the circumstantial factors. By making a typological examination throughout the history of architecture, as Anderson states, Quetremere de Quincy figured out that it is possible to understand architectural forms by

[62] Stanford Anderson. "Types and Conventions in Time: Toward a History for the Duration and Change of Artifacts," Perspecta: The Yale Architectural Journal. vol. 18, 1982, pp. 109-118.

discovering their type, their "common origin and primitive cause."[63] That kind of examination, that searches for internal values of architecture separated from their time period, gains significance in the discussion of architectural autonomy. In this regard, Anderson claims that every architect needs to work within the cultural values of his/her own time; however, every architectural work needs to have intrinsic values in addition to the contextual ones. Anderson draws attention to Gottfried Semper's investigation and states that "[a]ccording to Semper, the arts form, not merely express, reality."[64]

When discussing autonomy, it is very important to question architectural form in terms of these inherent tools and knowledge. Throughout the modern period, architectural form has been evaluated within and without its interior values. This thesis claims that architecture had internal values and knowledge, that generates its own form with its internal aesthetic system. Accordingly, Stanford Anderson discusses autonomous values of architecture by stating that architecture has its own formal principles. Anderson discusses this issue with the example of Gerrit Rietveld's Schröder House, and states:

> In the Schröder House, spatial and utilitarian concerns are imbedded in the development of the de Stijl formal system. Direct experience of the Schröder House reveals the intellectual, formal principles that concerned the de Stijl group; it is the embodiment of a set of ideas in substantial form. However, unlike buildings that embody a formal idea in whole, object-like volumes, the de Stijl forms of the Schröder House were generated additively. In this wat the perceptual experience of the house and the demands of use contribute to the construction of the whole that is

[63] Ibid., p. 112.
[64] Ibid., p. 114.

> consistent with the formal system behind the design, and simultaneously aware of the use-implications of the formal organization.[65]

As Anderson argues, the Schröder House represents the utilitarian and ideal realities within its own "formal system." Schröder House is a significant work, demonstrating the ability of modern architecture to generate its own aesthetic characteristics.

3.4 Tectonics

The formal characteristics of Modern Architecture had received its value from the technological inventions. It seems possible to argue that Modern Architecture introduced a formal connotation of construction and the aesthetization of technology. This aspect of modern architecture had resulted with a discipline having pure aesthetic qualities. Technology was not the only data that produces architectural form; rather it was the catalyst that formal principles had been imposed on. Thus Alan Colquhoun draws attention to the aesthetization of technology in modern architecture and continues:

> Reason could now create machines of extreme precision; feeling, allied to reason, could create works of art of an equally precise plastic beauty… There was nothing new in the identification of modern technology with classicism – it had been an essential part of Muthesius's post-Arts and Crafts aesthetic doctrine. But Cubism had opened the way to a more abstract, Platonic idea of classicism, and it was in this form that the equation technology-classicism reappeared in L'Esprit Nouveau.[66]

[65] Stanford Anderson. "Quasi-Autonomy in Architecture: The Search for an In-Between," Perspecta: The Yale Architectural Journal. vol. 33, 2002, p. 35.
[66] Alan Colquhoun. Modern Architecture. Oxford: Oxford University Press, 2002, p. 139.

The tectonic characteristics of architecture, which refers to the tangible possessions and constructional methods, is significant in assessing architectural form. The tectonic knowledge could be considered as a decisive tool in generating spatial and formal principles. In his book "Studies in Tectonic Culture," Kenneth Frampton defines "tectonics" as "poetics of construction," and discusses the interpretation of tectonic properties into architectural values of many modern architects.[67] Frampton searches for substantial matters of architecture, but not by means of physical characteristics like a craftwork, rather, in terms of a view of production in the 'poetic' sense. Thus, Frampton seeks to find out modern architecture's important issues by way of the developments in construction techniques and their ramifications in architectural means. Tectonic, in that sense, does not designate merely the materiality and tangible features, but rather indicates the artistic underpinnings of them. This aspect of tectonics is expressed by Stanford Anderson as; "Tectonic referred not just to the activity of making the materially requisite construction … but rather to the activity that raises this construction to an art of form."

In the work of many modern architects, architectural interpretations of tectonic values could be observed. New formal language of Modern Architecture is generated by new materials and construction techniques. By means of the potentials of tectonic values, within modern architecture, the architect became more independent in developing spatial and formal principles. New concepts in design process converged; such as Le Corbusier's machine aesthetics and classical

[67] Kenneth Frampton. Studies in Tectonic Culture: the Poetics of Construction in Nineteenth and Twentieth Century Architecture. Ed. By John Cava. Cambridge, Massachusetts: MIT Press, 1995.

principles of ancient times. Le Corbusier declared that with the values of modern engineering, architecture can find out the basis of its own discipline.

Le Corbusier's achievement is revealed by Colquhoun as:

> Architecture, as an art, no longer had the task of creating meanings by means of signs attached to the surfaces of buildings. The "meaning" in architecture was now immanent in the pure forms which the new technology made possible. Like a poesis in which words are identical with the ideas which they represent, architecture had no more need of the mediating role of conventional and arbitrary signs; it would become its own sign… Architecture was to be not only the symbol but also the instrument of a new society.[68]

The architecture of the modern era transforms the technological inventions into its tectonic characteristics; and consequently, the tectonic characteristics into aesthetic principles. As Colquhoun claims, architectural form, that gained its own interiority by the help of modern technology, represents the "meaning" as an art.

3.5 Modern Architects and the Individual Design Process

The technologic inventions, societal and moral changes, and their reflections on the aesthetic, tectonic characteristics of architectural form have been discussed previously. In this part of the thesis, the consequences of them will be questioned through the design process of the modern architect.

Le Corbusier was one of the most significant architects of the twentieth century, whose theoretical and practical work had influenced, and yet, transformed the spatial and formal assessment of modern architecture. Throughout his life, he invented important developments in building construction and proposed noteworthy

[68] Alan Colquhoun. "The Significance of Le Corbusier," in Le Corbusier: the Garland Essays. ed. by H. Allen Brooks. New York: Garland, 1987, p. 17.

theories of architecture. His aim was to introduce modern people new life styles, and therefore, the architecture of the modern times. By way of his attempts to initiate this new life style and architecture, with both his innovative houses and the published articles and books, he searches for the utmost use of the elements of architecture. He scrutinizes the boundaries of his discipline, and brings into play the technical opportunities of his epoch. Alan Colquhoun draws attention to this aspect and importance of Le Corbusier, in terms of his proposals for the new forms and spatial characteristics of architecture:

> Of all the architects of the modern movement, it is Le Corbusier who constructed its most elaborate theoretical underpinning. His architectural theory differs significantly from that of the other modern architects, in kind as well as degree. Whereas for Walter Gropius theory was instrumental and design its direct product, for Le Corbusier theory was justificatory. It seeks to justify architecture as an autonomous and normative discipline, and in this way belongs to the tradition of French architectural theory from Philibert de L'Orme to Ledoux. His theoretical writings aimed to reconcile new phenomena resulting from modern industrial production within certain a priori architectural values. These values were seen as the conditions that made the practice of architecture intelligible.[69]

Le Corbusier investigated and rediscovered his apparatuses as an architect, and employed them for the benefit of an autonomous architecture. Rather than agreeing with the existing orders and evaluations of architecture, he aimed to mine and discover the architecture of his own epoch.

[69] Alan Colquhoun. "Architecture and Engineering: Le Corbusier and the Paradox of Reason," in Modernity and the Classical Tradition: Architectural Essays 1980-1987. Cambridge, Massachusetts; London: MIT Press, 1989, p. 89.

Fig. 14 Le Corbusier, Villa Garches.
(Source : Klaus-Peter Gast, Le Corbusier, Paris-Chandigarh, p. 57)

Fig. 15 Le Corbusier, Millowbers' Association Building.
(Source: Klaus-Peter Gast, Le Corbusier, Paris-Chandigarh, p. 176)

Fig. 16 Le Corbusier, Unite d'Habitation, Marseilles.
(Source : http://www.washington.edu/ark2/archtm/MLC1810.html)

Le Corbusier's architecture has a dualistic character that includes both rationalist and romantic connotations. He believed in modern technology and was concerned with the principles of engineering; and on the other hand, he used the elements of architecture "spiritually." Thus, in his influential book, "Towards a New Architecture," he exposes this dualistic character of his architecture:

> You employ stone, wood and concrete, and with these materials you build houses and palaces. That is construction. Ingenuity is at work.

> But suddenly you touch my heart, you do me good, I am happy and I say: 'This is beautiful.' That is architecture. Art enters in.
>
> My house is practical. I thank you, as I might thank Railway engineers, or the Telephone service. You have not touched my heart.
>
> But suppose that walls rise towards heaven in such a way that I am moved. I perceive your intentions. Your mood has been gentle, brutal, charming or noble. The stones you have erected tell me so. You fix me to the place and my eyes regard it. They behold something which expresses a thought. A thought which reveals itself without word or sound, but solely by means of shapes which stand in a certain relationship to one another. These shapes are such that they are clearly revealed in light. The relationships between them have not necessarily any reference to what is practical or descriptive. They are a mathematical creation of your mind. They are the language of Architecture. By the use of raw materials and starting from conditions more or less utilitarian, you have established certain relationships which have aroused my emotions. This is Architecture.[70]

This remarkable passage from Le Corbusier clearly points to an architecture that not only is practical, but also enunciates the emotions. Le Corbusier reveals the importance of the relationships between the elements, which constitute the "language of Architecture." With this revelation; he draws our attention to architecture's internal logic.

Le Corbusier had developed important methods and schemes of building practice, which introduced his understanding of the architecture of the modern times. These methods and schemes, which search for the demanding use of the twentieth century's life and technology, led many of his followers. These are the Dom-ino principle, Five Points of architecture, and the Four Means of Construction, through which he reveals many important aspects of modern architecture.

[70] Le Corbusier. Towards a New Architecture. trans. by Frederick Etchells, New York: Praeger Publishers,1970, first published in London: Architectural Press, 1927, p. 141.

The diagram for the Dom-ino principle was very significant for not only Le Corbusier's subsequent projects, but also the principles of the following architecture. With its guiding manner, it points to modern architecture's possibilities in terms of new construction techniques.

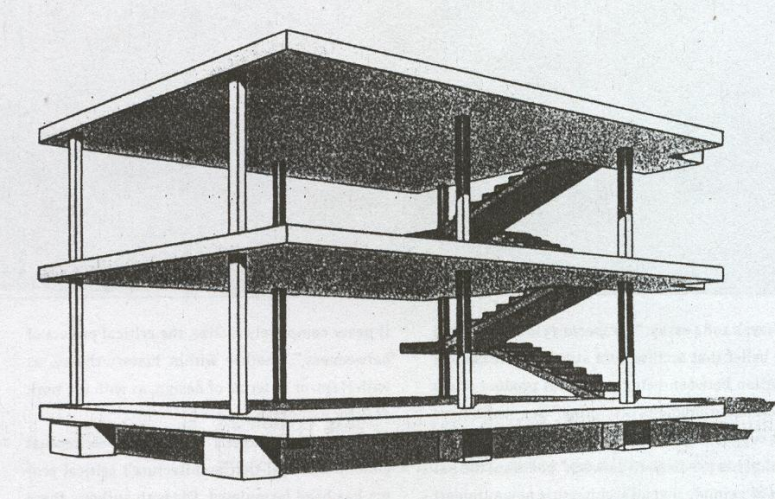

Fig. 17 Le Corbusier, the Dom-ino Diagram.
(Source: K. Michael Hays, Oppositions Reader, p. 188)

Le Corbusier reveals, in this diagram, the freeing of the structural and formal elements. The columns and slabs are formulated so as to provide more freedom for the architect to create his/her plans and façades, with plastic means.

Colquhoun points to the opportunities of this new way of construction:

> Here, the concrete frame carries all the certainty of a Cartesian a priori. Within this frame, the volumes and equipment of the house can be independently

> arranged, according to practical needs. The organization of these needs is supposed to follow an empirical necessity whose laws are as rigorous as those of the Platonic frame and its implied cubic envelope (though, in fact, it is precisely here that the invention of the architect/artist comes into play, with all its freedom of metaphorical allusion). The dialogue between the frame and its infill is made apparent by means of Cubist techniques of spatial spontaneity, themselves made possible by new constructional techniques.[71]

Even though skeleton construction and new materials such as reinforced concrete and glass had already been used by architects before Le Corbusier, he employed this new technique with a different interpretation, by searching for the abstract and spatial reflections of it. Le Corbusier's abstract and reduced diagrammatic drawing of the Dom-ino principle performs as a guide to the new architecture, which may lead as the representation of modern architecture's principles. Klaus-Peter Gast analyzes this drawing and argues:

> Using the new material of reinforced concrete, in which two materials distribute the forces exerted, those forces can be absorbed by slender columns. But Le Corbusier now takes this an extremely important step further, which was to shape the future of the building all over the world: they are revealed, and shown independently of all interior walls and fittings, thus acquiring an autonomous and therefore architecturally significant character. They are no longer structural parts born of necessity, but independent elements within a whole that still belong to it and have to be designed. The separation of load-bearing function and cladding function for the outside wall by setting back the columns has extraordinary consequences: the design of the façade becomes almost independent of structural requirements, as a pure covering to keep out the weather. [72]

[71] Alan Colquhoun, " Rationalism: A Philosophical Concept in Architecture," in Modernity and the Classical Tradition: Architectural Essays 1980-1987. Cambridge, Massachusetts; London: MIT Press, 1989, p. 77.
[72] Klaus-Peter Gast. Le Corbusier, Paris-Chandigarh. trans. by, Michael Robinson, Birkhauser: Publishers for Architecture, 2000, p. 26.

Through this free attitude in designing space, many planes may overlap and many new ways of design and form could be materialized. With this characteristic, the Dom-ino principle transcends being merely a structural composition, and become loaded with further significance of aesthetic innovation. This diagram could be assessed as a demonstration of a "formal principle," which includes many aesthetic opportunities. The elements expressed in the Dom-ino diagram, makes possible various formal consequences with their different combinations. With this ability, Dom-ino is an important example of modern architecture, that represents infinitive formal capacities and freedom.

In his Five Points of architecture, (1. the *pilotis*, 2. the *toit-jardin*, 3. the *plan libre*, 4. the *fenetre en longueur*, 5. the *façade libre*) Le Corbusier proposes alternative formulations in the spatial design, which affects the formal and aesthetic assessments of architecture. Kenneth Frampton argues that Le Corbusier's Maison Cook represents these Five Points, which has plans and façades that are freed from structural constraints.[73] The pilotis, as most of his designs, acts as an aesthetic property. With the roof garden, Le Corbusier suggests a new living space. The strip window develops as a formal property also.

[73] Kenneth Frampton. Le Corbusier. London: Thames and Hudson, 2001. pp. 72-76.

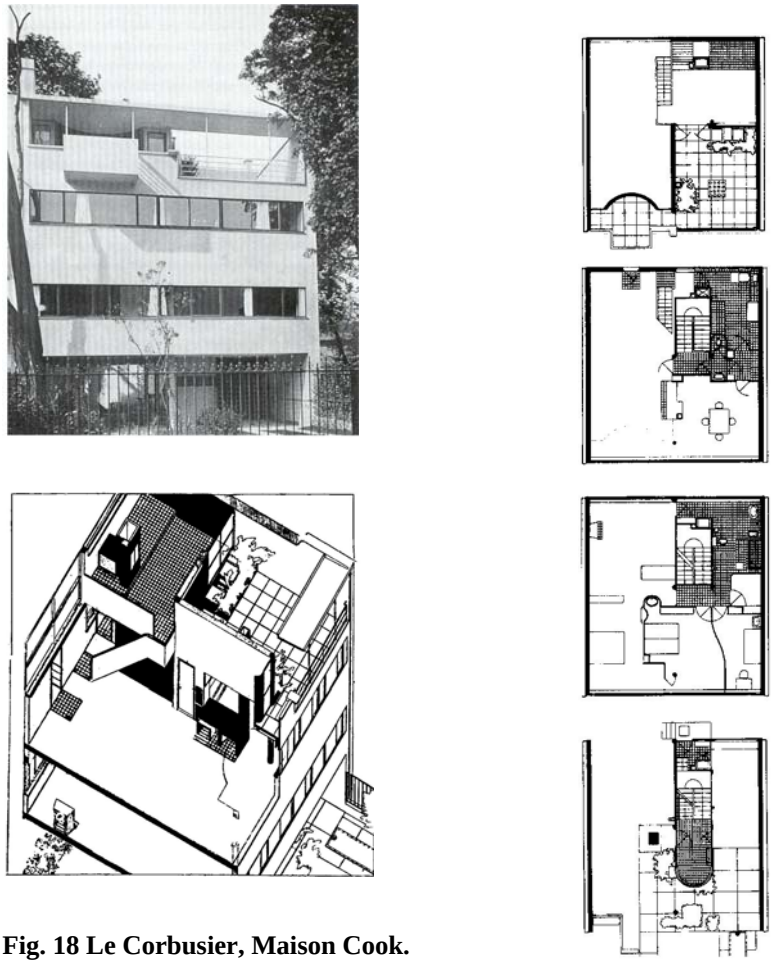

Fig. 18 Le Corbusier, Maison Cook.
(Source : Kenneth Frampton, Le Corbusier, p. 74)

He demonstrates these architectural principles in his architectural production and reveals them in his drawings of the Four Compositions. These diagrams, as the outlines of the architecture of modern times, reveal different uses of construction. In the first two, the three dimensional form is generated by extending the plan vertically. In the third and the forth ones, many layers overlap. Federico Soriano points to the importance of these diagrams by pointing to their self-referential qualities and states: “each interior only has reference to itself; the storeys are

interchangeable and we cannot even deduce from each one whether there are more levels above or below... or even whether they just have a single floor."[74] Colquhoun points to this aspect of the diagrams and states;

> if Le Corbusier seems to have been more successful in reconciling these contradictory claims in his buildings than in either his theory or his urban projects, it is probably because we can interpret these buildings as belonging to a modernist movement in the arts in general - a movement in which the work of art becomes increasingly solipsistic and self-referential.[75]

Le Corbusier himself classifies these 4 means of compositions in these terms:

> The first type shows each organ rising up next to its neighbour, in accordance with an organic reasoning: 'the inside takes its ease, and pushes out to form diverse projections.' This principle leads to a 'pyramidal' composition, which can become busy if one doesn't watch out.
>
> The second type shows the compression of organs within a rigid envelope, absolutely pure. A difficult problem, perhaps a spiritual delight; spending spiritual energy within self-imposed limitations.
>
> The third type furnishes, with a visible framework (skeleton structure), a simple envelope, clear, transparent as a network; it allows for the creation of useful volumes of rooms different on each floor in form and quantity. An ingenious type appropriate to certain climates; such compositions are easy, full of possibilities.
>
> The forth type attains on the outside the pure form of the second type; inside, it has the advantages, the characteristics of the first and the third. A very pure type, very ample, also full of possibilities.[76]

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[74] Frederic Soriano. "Towards the Definition of Deep Plan, the Anamorphic Plan and the Fluctuating Plan," El Croquis. issue 81-82, 1996, p. 7.
[75] Alan Colquhoun. Modernity and the Classical Tradition: Architectural Essays 1980-1987. Cambridge, Massachusetts; London: MIT Press, 1989, p. 115.
[76] Kenneth Frampton. Le Corbusier. New York: Thames and Hudson, 2001, p. 71.

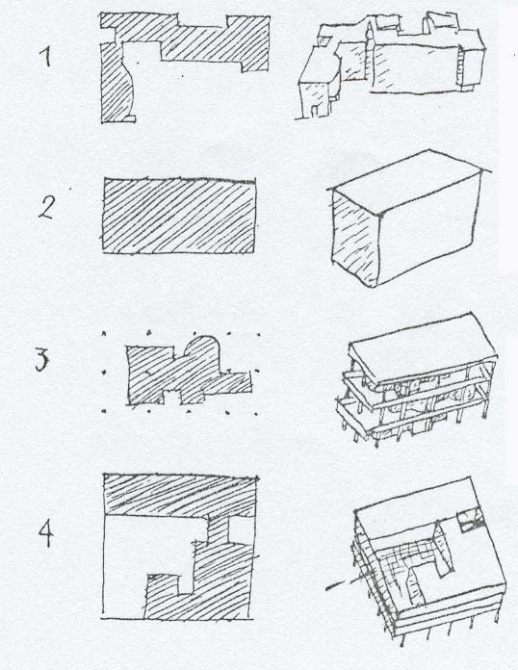

Fig. 19 Le Corbusier, The Four Means of Composition.
(Source: Kenneth Frampton, Le Corbusier, p. 70)

Le Corbusier was very much aware of what he has as equipment. He used his equipment not only for providing new life styles for modern people, but also for supplying his architectural/artistic freedom. His search for the inherent qualities of architecture resulted with various ways for him to materialize internal artistic manner and external reality, and with leading ways for his followers to generate infinite modes of new formal and aesthetic creations. Thus, Colquhoun remarks this aspect of his work and states:

> To reject his work because it is thus predicated on artistic freedom and because its reference to the tradition is oblique and reductive would be tantamount to rejecting the entire tradition of modernism. If, on the contrary, we accept the viewpoint of modernism, the part technology plays in the works of Le Corbusier

> appears as a means of to artistic freedom, to the opening up of new worlds of aesthetic meaning.[77]

As Colquhoun argues, Le Corbusier's works offer many new ways of formal, structural and aesthetic results, by exposing new uses of architecture's own tools in the modern era.

3.6 The Architecturalization Process of Tectonic Qualities into Poetic and Spiritual Means of Architecture

The explicit and implicit order, the freedom of organization of the matters and elements, the newly proposed relationships between elements is very significant in Le Corbusier's work. He not only had demonstrated the technological developments in his construction, but also transformed these developments in terms of architectural assessment. Tectonic or aesthetic connotations of the components of structure, abstract and spiritual ramifications of technology constituted a conceptual shift in his work. His interpretation of technology has the influential value in discussing the knowledge that is architecture's own. Stanford Anderson examines Le Corbusier's leading interpretation of technology and relates it with architectural autonomy:

> …the Five Points could not have been conceived without the availability of reinforced concrete. There really is no technological invention in Five Points; they are rather a significant architectural discovery within a recently available technology. Stated thus, Le Corbusier's achievement invites the commentary: no invention is significant unless it is also a discovery. It is the element of discovery that saves an invention from being merely arbitrary.[78]

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[77] Alan Colquhoun. Modernity and the Classical Tradition: Architectural Essays 1980-1987. Cambridge, Massachusetts; London: MIT Press, 1989.
[78] Stanford Anderson. "Quasi-Autonomy in Architecture: The Search for an In-Between," Perspecta: The Yale Architectural Journal. vol. 33, 2002, p. 36.

Anderson's statement clearly identifies the role that technological developments played in the formal, structural, and spatial characteristics of modern architecture. This distinction made by Anderson between "invention" and "discovery" is very important, for this thesis, which clarifies the significance of the modern architect when transferring his/her data into architecture's own domain. The architect receives the information of the technological inventions, occurred in structural and constructional methods, and has the ability to transform this information into architectural form and space with internal knowledge of architecture's own. Here reveals the architect's "discovery" that exists with architecturally significant qualities.

Following this argument, it could be situated that Le Corbusier, who interprets his data with "architectural" knowledge, different from many other architects, who employed technical opportunities by ignoring their "architectural" or aesthetic capacities.

Le Corbusier employed new materials and construction techniques into his architecture different than the architects that practiced before him, even than Auguste Perret whom he worked with. The use of reinforced concrete was very much different in the work of Le Corbusier from the traditional use of materials. Thus, Alan Colquhoun draws attention to this aspect of Le Corbusier's work and differentiates it from that of Perret:

> Perret adhered to the academically enshrined principals of French structural rationalism, according to which the structure of a building should be legible on the façade. For Perret, the advent of reinforced concrete modified but did not invalidate this tradition; he looked on concrete as a new kind of stone.

> Unlike Perret, Le Corbusier saw reinforced concrete as a means towards the industrialization of the building process. His first embodiment of this idea was the Dom-ino frame (1914), designed with the help of Max Dubois, in which the columns and the floorplate constituted a prefabricated system independent of walls and partitions. [79]

Le Corbusier's ability to integrate technological advances with his theoretical work and abstract form is an important premise in the examination of architectural self-knowledge. This attitude could be assessed in terms of Frampton's definition of 'tectonics' as 'poetics of construction,' which examines the interpretation of tectonic properties into architectural values. Frampton, in his book Studies in Tectonic Culture, searches for substantial matters of architecture, in terms of a view of production in the 'poetic' sense. Frampton evaluates modern architecture by way of the ramifications of the construction techniques into architecture. Tectonics, in that sense, does not designate merely the material characteristics, but furthermore, implies to the artistic underpinnings of them. Frampton, in the book, draws attention to Francesco Dal Co's argument on this issue in which Dal Co states; "When the architect states that architecture begins where two bricks are carefully joined together, our attention should not fall on the curious, reductive image of the two bricks, but on what is required for their joining to create something architecturally significant."[80] The term "architecturally significant" is very important here when this thesis aims to unfold the "architectural" consequences and connotations of technical and tectonic values. Dal Co's statement points to the ways of joining two bricks where architectural qualities may reveal. Therefore, it is very important to search for the ways 'how' this joining happens.

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[79] Alan Colquhoun. Modern Architecture. Oxford: Oxford University Press, 2002, pp. 143-144.
[80] Ibid.

Frampton ties this argument with aesthetic and formal consequences, and states that with the conscious use of tectonic values, architects became freer in form-making and therefore modern architects created new formal vocabularies. He believes that the consciousness about tectonics and construction techniques allowed modern architects produce various new ideas of new forms. In the part of the book that he examines Mies's work, Frampton points to the formal consequences of the rupture happened in modern architecture, which freed plan from the façade, skin from the skeleton; and therefore, form from certain constraints. The distinction between tectonic and stereotomic qualities made architects utilize the formal results of the distinction between load-bearing walls and skeletonal structures. In the Seagram building and the Barcelona Pavilion, Frampton analyzed the aesthetic and formal ramifications of tectonic values. The freestanding columns and the non-load-bearing walls are separated distinctly from the previous times' use of structure and surface.

Correspondingly, Michael Hays examines Mies's Barcelona Pavilion with the aim of exemplifying his statement of "critical architecture."[81] Hays claims that the Pavilion has a complex spatial order that "presents itself as an a priori mental construct rather than a palpable worldly object."[82] By emphasizing that this space

[81] K. Michael Hays. "Critical Architecture: Between Culture and Form," Perspecta: The Yale Architectural Journal. vol. 21, 1984, pp. 14-29.
[82] Ibid., p. 22.

Fig. 20 Ludwig Mies van der Rohe, Barcelona Pavilion.
(Source: http://www.bluffton.edu/~sullivanm/spain/barcelona/mies/pavilion.html)

cannot be evaluated independent from its cultural context, Hays states that it has further intellectual and formal values.

As Frampton and Hays reveal, Mies had achieved to represent modern architecture's internal values by means of the tectonic and formal properties. Having the same opinion, the main intention of this thesis is to discuss the architects' ability to transform their technical apparatuses (materials, construction techniques, structural systems) by means of their artistic purposes. This quality and 'architecturalization' of technical devices reveal in the way the architects equip them. Accepting that architecture materializes the social context and functional necessities, this thesis aims to figure out how architecture materializes these necessities. It is considered important that the internal language and norms it uses to do this transformation, and its own logic to make these characteristics "architecturally significant". Diane Agrest, in her essay "Design versus Non-Design," deals with the relationships between cultural and social constraints and architectural production.[83] She argues that design is interrelated with the cultural codes, and these codes are transferred to architectural production and becomes the codes of that architecture. Correspondingly, this thesis concerns with the interpretation of the external realities into architectural product, and the transfer of the "cultural codes" with the knowledge that is architecture's own.

[83] Diana Agrest. "Design versus Non-Design," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by K. Michael Hays, New York: Princeton Architectural Press, 1998, pp. 331-354.

3.7 Timeless Values and the Modern Times' Values

As he acknowledged in his books about his travels and explorations of ancient architecture, Le Corbusier was very much aware of the timeless values in architecture. From his scrutiny and analyses of buildings and cities such as Parthenon, Rome and Istanbul, he discovered the eternal and universal characteristics of architecture and employed them with his profound contemplation of tectonic values.

Besides that, as he declared in many of his articles and books, Le Corbusier explored the potentials of the architectural possibilities of his epoch. His aim was to reinterpret the timeless values in architecture in modern ways, with newly emerged techniques and appropriate to the new life styles.

Alexander Tzonis points to Amedee Ozenfant and Le Corbusier's discussion on this issue and states:

> The most significant product of Ozenfant's and Le Corbusier's collaboration was writing Apres le Cubisme ("After Cubism"), a book that was released in November 1918 and that launched a new movement, purism… Their two suggestions as to where to find these constants were both "Kantian" and "Hegelian." The Kantian suggestion called for a return to an a priori order of human nature; the Hegelian, for catching up with the spirit of the new order of the epoch that produced industrial buildings, engineering structures, and machines "as projections of the laws of nature."[84]

What Tzonis remarks in this paragraph is Le Corbusier's intention to make use of the timeless and a priori values of architecture, and besides that, his desire to interpret them with new techniques and developments of modern times. Needless to

[84] Alexander Tzonis. Le Corbusier: the Poetics of Machine and Metaphor. New York: Universe, 2001, p. 39.

say, Le Corbusier's interpretation of the timeless values with the modern techniques had resulted with various new forms and images. Alan Colquhoun also draws attention to this aspect of Le Corbusier's work and states:

> Le Corbusier's architecture, its qualities as well as what may perhaps be considered its faults, comes directly from this dualistic philosophy. Nonetheless, he never satisfactorily reconciled his search for the timeless human values of architecture with his belief that modern technology and the structures of modern capitalism provided the means whereby these values could be reestablished in a new form.[85]

This "dualistic philosophy" is emphasized by Colin Rowe in his investigation of Le Corbusier's Villa Garches and Palladio's Villa Malcontenta, through which he indicated that architectural form cannot be linked with any specific culture or time; alternatively, it surpasses any particular time and offers the source of a universal and timeless comprehension. This property is what Stanford Anderson emphasizes with the significance of the works of Quatremere de Quincy and Gottfried Semper, by which he argues that architectural forms throughout history have their common origin and primal reason. Following Anderson's argument, this thesis claims that an architect needs to follow the conventions of his/her social circumstances; however, these conventions need to be interpreted with the origins and primal reason of architecture itself.

Consequently, architecture's internal qualities as a practice is evaluated in this chapter within the framework of Modern Architecture; by regarding the driving forces of Modernity not as the only determining factors, but as the influential

[85] Alan Colquhoun. Modernity and the Classical Tradition: Architectural Essays 1980-1987. Cambridge, Massachusetts; London: MIT Press, 1989, p. 90.

parameters in creating forms and spaces more autonomously. The elements of Modern Architecture may not be completely different from those of the previous architecture; however, the combinations of these elements and the architect's role in the design process were more autonomous.

As a result, it is attempted to argue that, when evaluated as a practice, by dealing with the substantial existences and assessing internal relationships of the elements in terms of formal, functional, aesthetic, tectonic qualities; architecture is regarded as autonomous. The relationships between the internal elements of architecture are evaluated within the framework of Modern Architecture; by dealing with the conditions of the twentieth century. In the following chapter, a significant architectural design, Maison Curutchet, will be examined in terms of the previously discussed issues.

CHAPTER 4

RE-READING AUTONOMY OF ARCHITECTURAL FORM AND SPACE THROUGH LE CORBUSIER'S MAISON CURUTCHET

> Profile and contour are the touchstone of the Architect.
>
> Here he reveals himself as artist or mere engineer.
>
> Profile and contour are free of all constraint.
>
> There is here no longer any question of custom, nor of tradition, nor of construction, nor of adaptation to utilitarian needs.
>
> Profile and contour are a pure creation of the mind; they call for the plastic artist.[86]

Architectural autonomy has been discussed by examining architecture's internal elements and external realities previously. By considering architecture a discipline, the relationships with external factors have been discussed; and by considering it a practice, architecture's internal values, relationships between form, function and structure have been evaluated. In this part of the thesis, these issues will be scrutinized through a case study, Maison Curutchet, which was designed by

[86] Le Corbusier. Towards a New Architecture. trans. by Frederick Etchells, New York: Praeger Publishers, 1970, first published in London: Architectural Press, 1927, p. 186.

Le Corbusier who subjectively contributed to the development of modern architecture with his innovative interpretations of technological devices, and with his revolutionary understanding of aesthetic and tectonic qualities of architecture. Throughout this architectural work, by considering architecture's characteristics as a practice, the previously questioned issues, such as aesthetic and tectonic principles and the relationships between form, function and structure will be examined; and as a result, autonomy of architecture will be scrutinized with the help of these issues. Within this examination, the architect will be regarded as an active participant in creating form and space.

Throughout his architectural career, Le Corbusier had searched for architectural forms and spaces, which not only fulfilled functional necessities with modern construction techniques, but also enunciate human emotions. Architecture, for him, is an art having aesthetic qualities and poetic dimensions. Le Corbusier's architectural works, especially the ones after the revelation of the Dom-ino principle and Five Points of Architecture, could be read in terms of different viewpoints; such as formal, functional, tectonic and spatial levels. It is possible both to evaluate anyone of his works as functional, and at the same time, to regard it as an aesthetic expression.

Maison Curutchet is one of these valuable buildings, which had been designed in 1948. It was built in Argentina, as a residence and medical office for a doctor, Pedro Curutchet. The time that Maison Curutchet was designed, the late 1940s, was a significant period for Le Corbusier, when he developed his architectural discoveries that he had revealed in 1910s and 1920s, such as the Dom-ino principle and the Five Points of Architecture. By the end of 1940s, at the same

time with Maison Curutchet, Le Corbusier had been designing one of his most significant works, Unite d'Habitation in Marseilles. With these remarkable designs, Le Corbusier had the opportunity to develop his architectural principles in the years following the Second World War. This period was the time that he not only re-evaluated and advanced his architectural discoveries, but also represented his search for new innovations. For that reason, Maison Curutchet is a significant example of Le Corbusier's oeuvre, through which the developments and applications of his revolutionary inventions and principles of the architecture of the early modern period could be witnessed.

Maison Curutchet had been built in a small town in Argentina, La Plata. The site has complex physical characteristics, which was transformed into a spatial richness by Le Corbusier. The site is narrow and irregular, with its dimensions 9 meters wide by 22,75 meters deep on one side, and 17,25 meters deep on the other side.[87] The front length of the site cuts the street with a diagonal, measuring 10,20 meters. The front has the view of a beautiful park; however the other three sides are surrounded by existing buildings. These complex physical characteristics of the site had been interpreted by Le Corbusier, and transformed into a great architectural piece.

[87] Alejandro Lapunzina. Le Corbusier's Maison Curutchet. New York: Princeton Architectural Press, 1997.

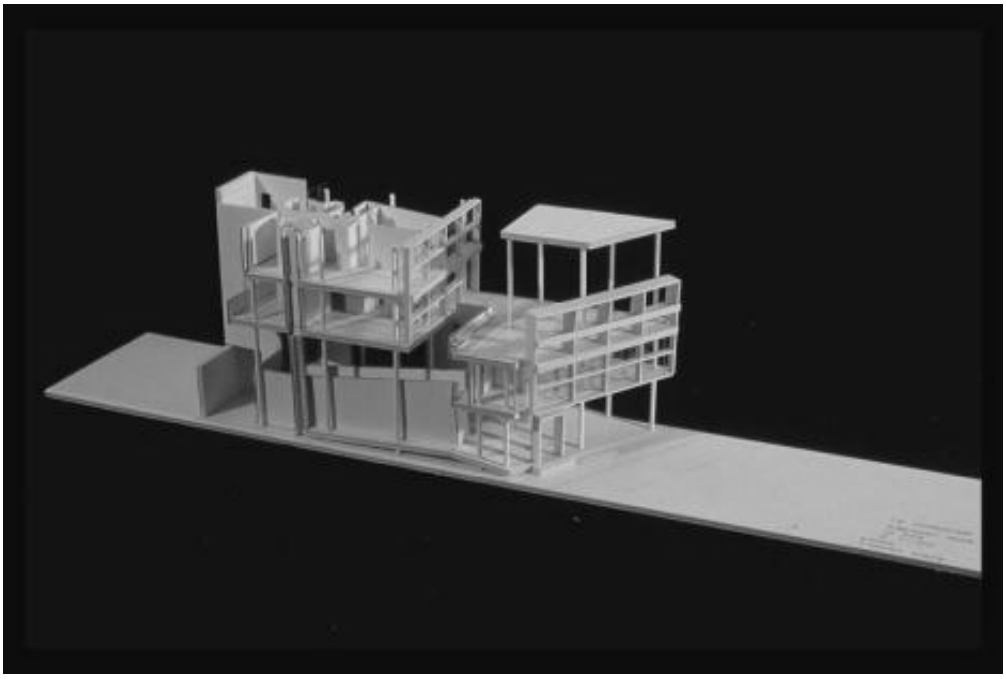

Fig. 21 Le Corbusier, Model of Maison Curutchet.

(Source: http://www3.bk.tudelft.nl/scripts/architectuur/agram/fcard.asp?lookforthis=57&dir=corbu&pics=cb)

The architectural program had been determined according to the demands of Dr. Pedro Curutchet, which consisted of his medical office and residence (living space including separated areas for music space and writing desk, porch, garage, dining room, bathroom…).[88] Le Corbusier had aimed to realize a pure, modern architectural design fulfilling the requirements of the complex program and the narrow, irregular site.

Le Corbusier had proposed the constructional system of reinforced concrete grid, with thin cylindrical columns, a few beams, and square slabs. Within this

[88] Ibid.

construction system, similar to his earlier designs, he achieved spatial and formal richness, with the fulfillment of the principles of his Five Points.

Within this construction system, Le Corbusier separates the doctor's medical office and living areas. On the entrance floor, the circulation elements and service areas are placed, a large open space is left for the garden. The clinic is placed on the first floor at the street side. The residential spaces are located on the upper levels that are elevated two levels above. The living room, dining room, music space, and roof terrace are placed on the lower residential level; the intimate spaces such as bedrooms and bathrooms are placed on the upper one. The clinic and residential parts are cleverly separated with a large vertical open space, including a big tree in. This open space both separates different functions of the program, and provides spatial richness connecting to outside as well.

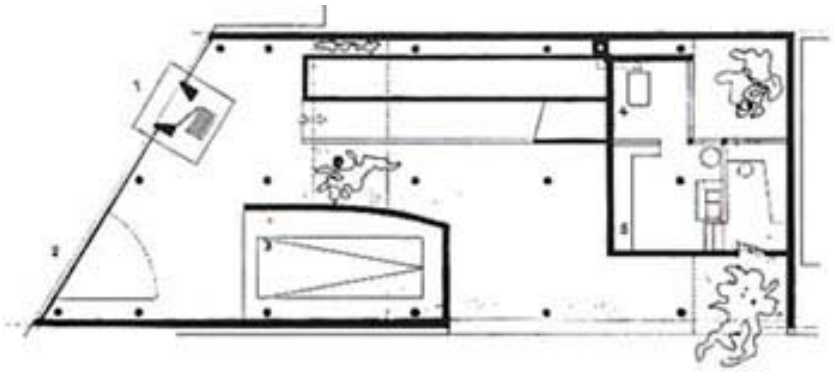

Fig. 22 Ground Floor Plan, Maison Curutchet.
(Source: Alejandro Lapunzina, Maison Curutchet)

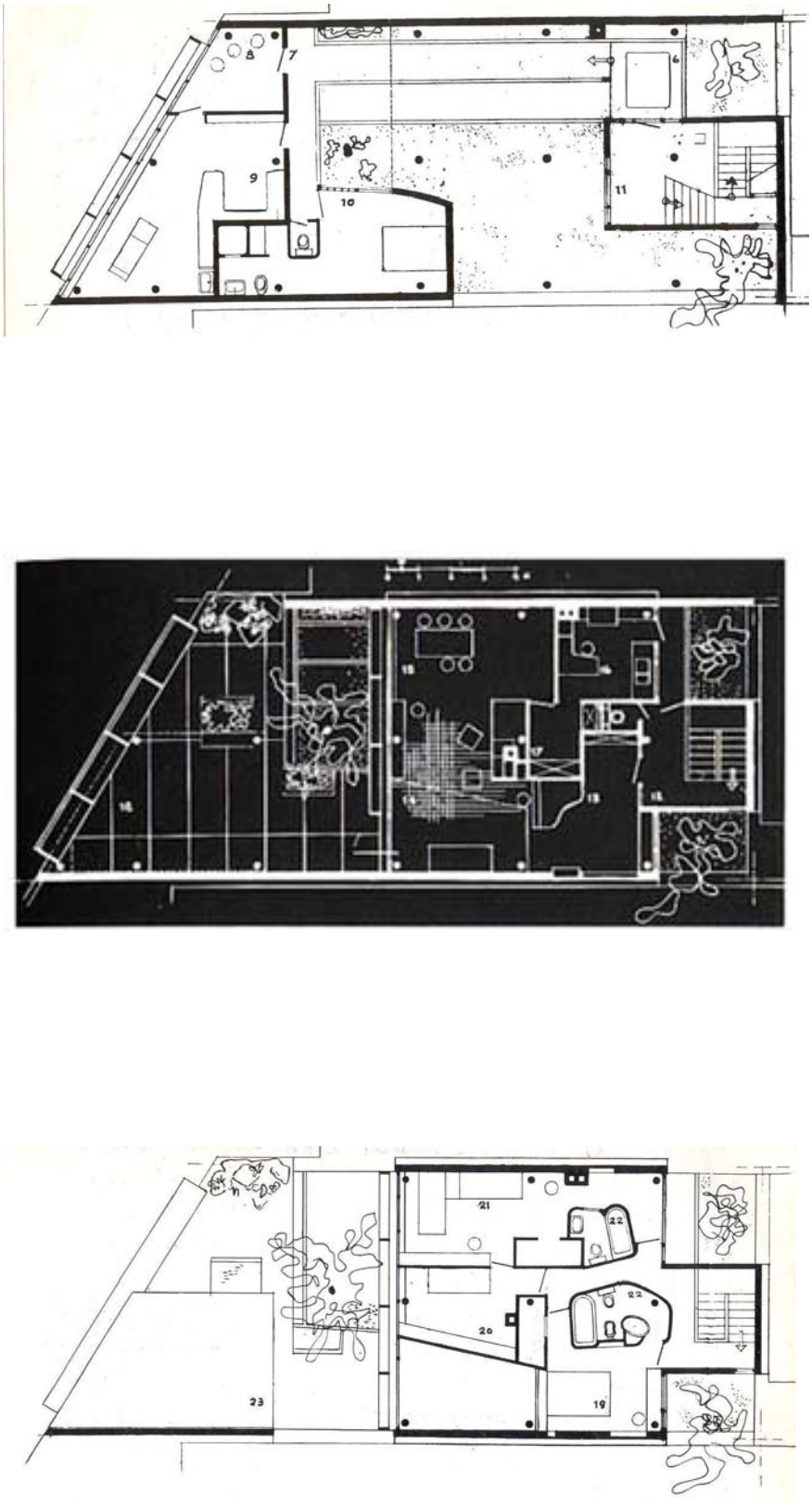

Fig. 23 Upper Floor Plans, Maison Curutchet.

(Source: Alejandro Lapunzina, Maison Curutchet)

Maison Curutchet could be estimated as an appropriate example, a successful realization of Le Corbusier's architectural discoveries. The building fulfills many levels of architectural requirements, such as, functional, spatial, structural, and formal ones, and therefore, it is possible to read this architectural piece by means of different spatial and formal characteristics, that co-exist in the same building. Maison Curutchet consists of many overlapping layers, which could be evaluated horizontally or vertically, structurally or formally, functionally or poetically. It is possible, then, to discover architectural values of this building, in this thesis, by unfolding it into its various layers.

When examining the plans of Maison Curutchet, it is possible to argue that Le Corbusier materialized his revolutionary principles of the Five Points. The reinforced concrete construction and the pilotis make it possible for the architect to elevate the building and detach it from the ground, with the self-regulating structural system. The plan is designed freely by separating the load-bearing system from the covering surfaces. The internal and external walls are untied from the structural system, as he had manifested in his Five Points. In the plan of this building, moreover, the skin is liberated from the skeleton in such a way that it transcends a tectonic principle, and becomes an aesthetic principle. The positions of the columns and slabs, the relationships of the walls with the structural elements draw our attention to the architect's potential and ability to design independently. Similar to his earlier buildings, in Maison Curutchet, the gridal system appears as the apparatus that enables Le Corbusier to organize the planes and volumes in an autonomous manner. This gridal system could not have been materialized without the developments occurred in modern technology; however, Le Corbusier uses the

new techniques by giving them architectural significance. The way he uses these technical or functional devices makes his designs gain further values that are architectural.

It is understandable in the first floor plan that not only the structural elements, but also the walls are located, and shaped freely. Even though Le Corbusier designed the structural system as a grid system of right angles, the internal walls are designed independent from the formal connotations of the grid, with various formal combinations.

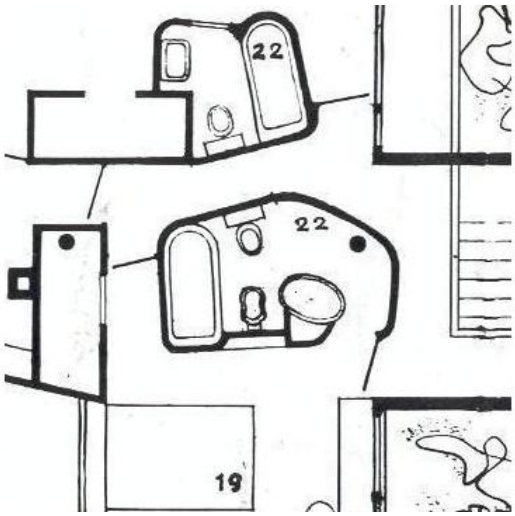

Fig. 24 Curved walls of the bathroom, Maison Curutchet.
(Source: Alejandro Lapunzina, Maison Curutchet)

The bathroom exemplifies how Le Corbusier intends to liberate the structural system. The column is located in the bathroom in such a way that it appears like it is one of the elements of the installment. As Eisenman later re-formulates this aspect of the structural elements of architecture, the column transcends the functional requirements that it fulfills, and became loaded with further significance that makes it architecturally considerable.[89]

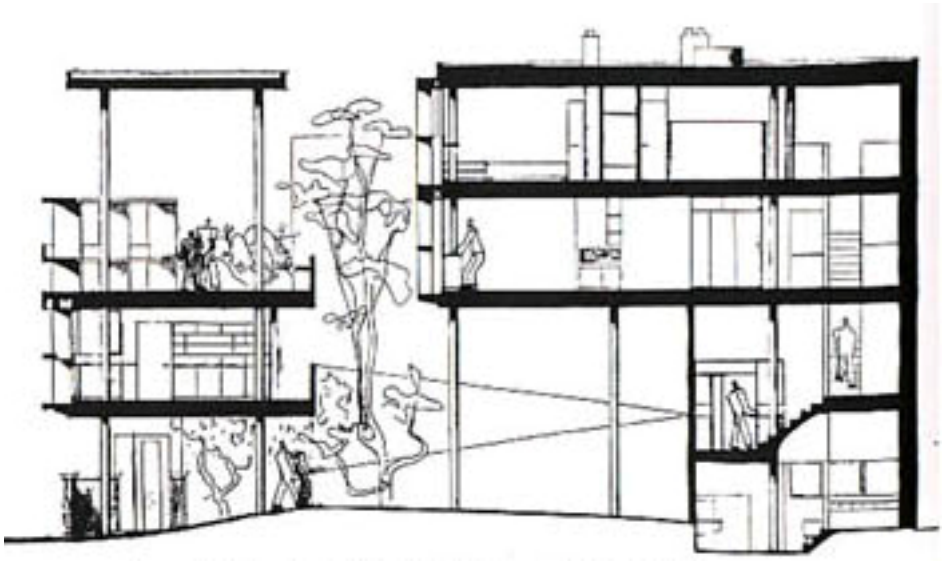

Fig. 25 Section of Maison Curutchet..

(Source: Alejandro Lapunzina, Maison Curutchet)

[89] Peter Eisenman examines the architectural significance of the structural elements of the Dom-ino diagram in "Aspects of Modernism: Maison Dom-ino and the Self-Referential Sign," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 188-199., and he later re-formulates the aesthetic qualities of functional elements in "Autonomy and the Will to the Critical," Assemblage. April 2000, issue 41.

As one of the components of the Five Points, Maison Curutchet's façade is also designed freely, which is separated from the plan and the structural system. The separation of the skin and skeleton enables Le Corbusier to design this significant façade that includes many elements and levels. The façade was designed as a light covering, independent of any structural demand with the recessed location of the skeleton.

Fig. 26 Entrance Façade, Maison Curutchet.
(Source: http://www.ccborges.org.ar/exposiciones/expocurutchet.htm

The façade of Maison Curutchet could be evaluated with the help of the concept "phenomenal transparency," that Colin Rowe and Robert Slutzky had introduced.[90] Rowe and Slutzky draw attention to the importance of the spatial relationships of layers in architecture. They make a new definition of transparency in architecture, and distinguish between "literal" and "phenomenal" transparency. Phenomenal transparency is defined, by Rowe and Slutzky, as a quality that is spatial, different than literal transparency which is merely physical. Rowe and Slutzky appreciate the architecture of Le Corbusier in a different point of view, by evaluating his designs by means of this conception.

In the light of this conception, it is possible to estimate Maison Curutchet's many layers, which overlap one on another. The overlapping layers of the building could be read through both the plan and the façade. On the façade, the structural and functional elements are located in such a way that they could be read as vertical planes. The interpenetration of these vertical planes makes the observer perceive many different viewpoints from outside. These vertical planes consist of the entrance doorway, structural elements, the brise soleils of the medical office, entry space and the external walls of the clinic, garden and terrace, brise soleils of the residence, double-height spaces, and stair tower. These vertical elements fulfill many functional needs on the one hand, and could be evaluated as formal elements of a composition (as in a Cubist painting) on the other. Viewing from the outside, the spectator can observe this complex combination of planes; solids and voids, and

[90] Colin Rowe and Robert Slutzky. "Transparency: Literal and Phenomenal," in The Mathematics of the Ideal Villa and Other Essays. ed by Colin Rowe, Cambridge, Massachusetts; London, England: the MIT Press, 1995, first published in 1982, pp. 159-184.

the interpenetration of them. All these horizontal and vertical planes are projected on the front façade, like a picture plane.

This estimation of an architectural product could be regarded as an evaluation depending on architecture's own judgments, with architecture's own knowledge. The various overlapped layers of the design, their relationships with each other, and the visual and spatial effects that they cause, could be evaluated by referring to architecture itself. Every one of these layers has functional characteristics; however, the way Le Corbusier brings them together makes them transcend being merely functional, and become architectural.

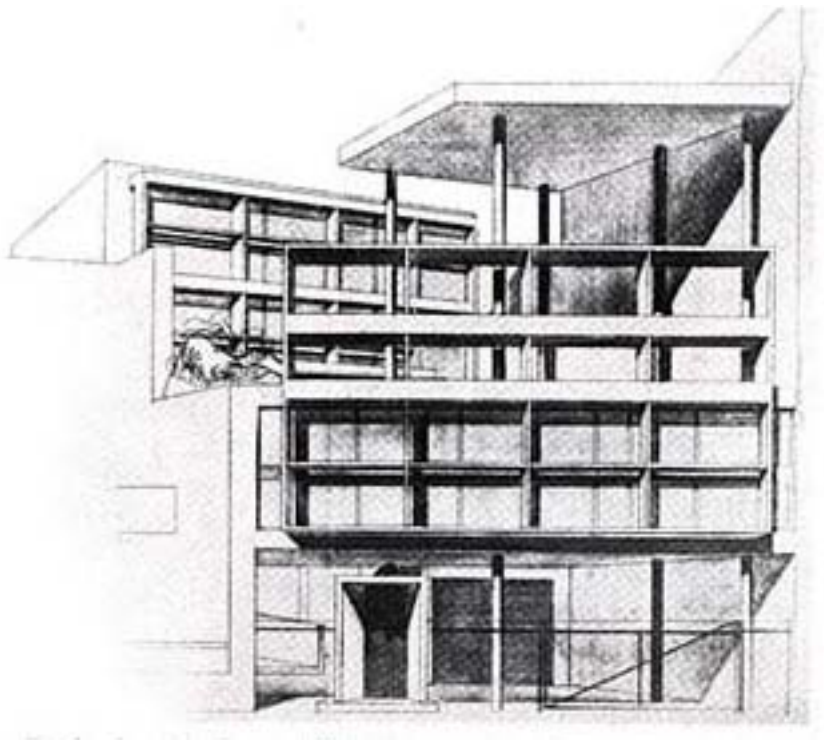

Fig. 27 Entrance Façade, Maison Curutchet.
(Source: Alejandro Lapunzina, Maison Curutchet)

Besides re-evaluating his previously proposed architectural principles, in Maison Curutchet, Le Corbusier employs his new architectural innovations that he has been developing at that time. The Modulor, and the brise soleils are the then developing elements of Le Corbusier, which he applied to his many significant buildings after Maison Curutchet. The dimensions of spatial and functional elements are designed with the help of the principles of the Modulor. The brise soleils are employed as the apparatuses to protect the gazed surfaces from the sun. Even though these newly proposed principles have significant functions, Le Corbusier designs them in such a way that they transcend their function and appear as functional elements having aesthetic connotations.

It could be argued that Maison Curutchet, with these architectural qualities, exemplifies that architecture's tasks and characteristics are more than merely covering and structural. The way Le Corbusier uses the architectural elements increase the building's aesthetic and spatial richness. Alan Colquhoun draws attention to the use of these elements, particularly the brise-soleils, and emphasizes their aesthetic connotations. He continues:

> The brise-soleil was a means of counteracting the vulnerability of the fully glazed to heat gain without having to return to the traditional hole-in-wall solid façade. In a manner wholly characteristic of Le Corbusier's dialectical logic, the ideal transparency of the external wall was not abandoned; its effects were counteracted by the addition of a new element. But the brise-soleil was more than a technical device; it introduced a new architectural element in the form of a thick, permeable wall, whose depth and subdivisions gave the façade the modeling and aedicular expression which had been lost with the suppression of the window and the pilasters.[91]

[91] Alan Colquhoun. "The Significance of Le Corbusier," in Le Corbusier: the Garland Essays. ed. by H. Allen Brooks. New York: Garland, 1987, pp. 24-25.

As Colquhoun states, the use of these elements is not merely to respond functional requirements, but also to achieve an aesthetic quality.

Fig. 28 Maison Curutchet, the brise soleils.
(Source: http://home.worldonline.dk/jgkjelds/curut.html)

Fig. 29 Maison Curutchet, the brise soleils.
(Source : http://paradeiser.twoday.net/20030922/)

The interiors of the building have valuable spatial and formal qualities also. The way Le Corbusier organizes the interior spatial elements; such as the ramp, the structural system, the walls, the roof terrace, and the double-height spaces enable the observer to perceive various different viewpoints when moving inside. The spatial richness that is achieved with the multiple interpenetrating planes is one of the major objectives of Le Corbusier.

Fig. 30 Interiors - the ramp, and the street behind, Maison Curutchet.
(Source: http://paradeiser.twoday.net/stories/76802)

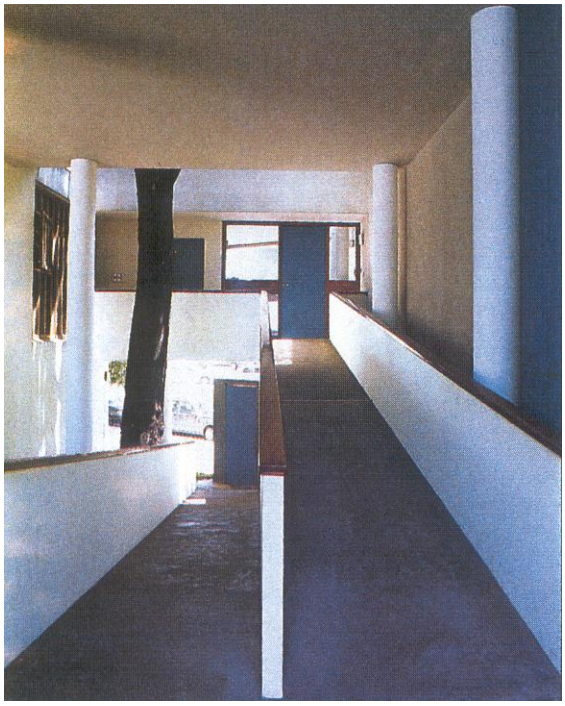

Fig. 31 Interiors - partitions, columns, the ramp, and the tree.
(Source: Michael Webb, Le Corbuier in Argentina, p. 38)

It is also possible to assess Maison Curutchet's architectural values, by evaluating the significant elements of Le Corbusier. The ramp is one of the most commonly used architectural elements of Le Corbusier, by which he materializes his intention to create "promenade architecturale." The ramp is associated with the "poetics of movement," representing both a functional and an aesthetic characteristic. Le Corbusier uses the ramp, instead of stairs, with the intention of uniting the vertical layers, instead of separating them. In addition to this functional purpose, the use of the ramp represents another aspect of the design. The ramp appears there as an element that multiplies the varieties of viewpoints inside the

building, and with this property, it stands as an element to increase the spatial effects of "phenomenal transparency."

The entrance doorway could be read as one of the free elements of the building also. It stands there as a free-standing door, independent of any wall or structural element. The relationships between this independent door, with the ceiling and the columns is unconventional.

Fig. 32 Entrance Door, Maison Curutchet.

(Source: http://www3.bk.tudelft.nl/scripts/architectuur/agram/fcard.asp?lookforthis=57&dir=corbu&pics=cb)

The tree in Maison Curutchet appears as an element of Le Corbusier's aesthetics, with poetic connotations. Alejandro Lapunzina emphasizes these poetic characteristics of the building and states:

> Along with the other components of his architectural vocabulary, it [the tree] is a fundamental constituent of the building's spatial and visual poetics. Without these poetically charged elements and the careful spatial and compositional equilibrium, the building might not have been much more than a satisfactory resolution of complex programmatic requirements. With these elements, Le Corbusier proposed a sensual spatial experience, completing an aesthetic, lyrical composition. These poetically charged elements are by no means whimsical or mere "lyrical" attachments. As he said, "the point of reference for all relations which have the power to move us are objects; by objects, I mean of course objects that work, or function." Le Corbusier's poetry of elements and events provides the building with a tangible sensibility. It served to improve the living standards, physical as well as sensitive, of the "new man."[92]

Fig. 33 The Tree, Maison Curutchet.

(Source: http://home.worldonline.dk/jgkjelds/curut.html)

[92] Alejandro Lapunzina. Le Corbusier's Maison Curutchet. New York: Princeton Architectural Press, 1997, p. 168.

Besides increasing the visual and spatial effects of the interiors, the tree stands in the building like an object that stresses the independence of the elements. The two different kinds of formal expressions – the orthogonal forms of the building, and the organic form of the tree – come together in the same building. This arrangement of the tree inside the building demonstrates that neither the elements nor the different functions restrict each other. Besides that, the structure is independent from the space, like the space is independent from the structure.

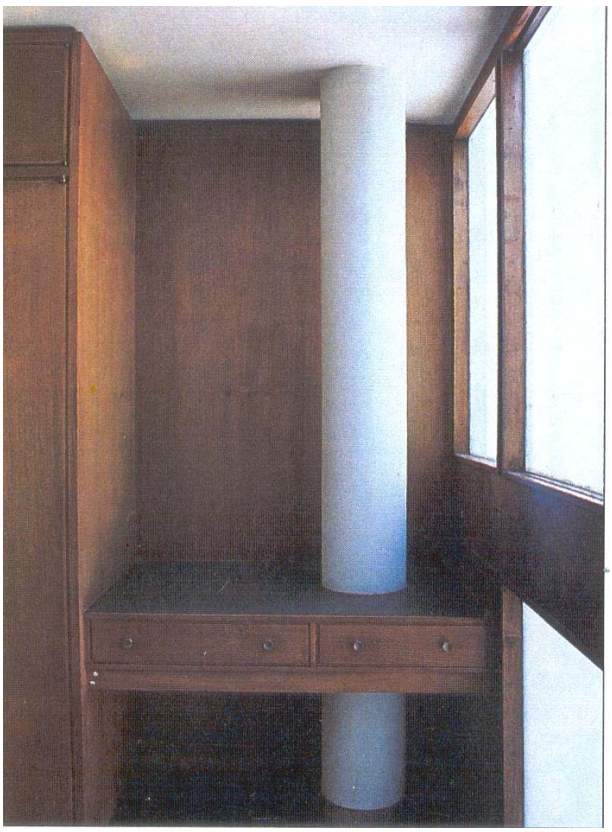

Fig 34 Column piercing a shelf in a bedroom, Maison Curutchet.
(Source: Michael Webb, Le Corbusier in Argentina, p. 42)

The visual and spatial richness of this architectural design is provided by Le Corbusier with different applications of the structural, functional, and utilitarian elements. One of the considerable examples for this property is the column piercing a shelf in a bedroom (Fig. 39). Being a part of the structural system, this column goes further than fulfilling the structural necessity, and become a self-evident object in the house. Le Corbusier's intention to make the different components of the design independent, by separating the structural system from the partitions, could be clearly seen in this example. On the surfaces of the column and the ceiling, white plaster is applied, which Le Corbusier commonly uses. On the partition walls, on the other hand, instead of the white plaster, wooden lining is applied. This attitude increases the effect of the separation of the different functions. If Le Corbusier had used white plaster on each surface, then the end product was going to be white-on-white, and the self-standing position of the column would not be perceived clearly. In this way, Le Corbusier reveals the column as a figure, which is freed from the partitions and the façade. By lining the wall behind the column with dark colored wooden panel, the architect shows how conscious he is when freeing the structural system from the partitions and the façade. This attitude could be considered as the aesthetization of that principle. Le Corbusier illustrates his freedom, not only by separating the different elements from each other, but also by doing this separation with different colors and materials. While the architect applied white plaster on structural elements, he used wood finishing on the non-structural ones, which illustrates the aesthetization of this differentiation.

In figure 40, another significant example for the architect's intention to demonstrate his freedom could be observed. In this figure, it could clearly be seen that the staircase is not carried by the partition walls. Between the staircase and the wall, a transparent element, window, is located, with the aim of emphasizing the separation. Besides that, the color of the partition wall behind the staircase is differentiated; and as a result, this differentiation accentuates the formal consequences of the architectural attitudes of the architect.

Fig 35 Staircase, Maison Curutchet.
(Source: Michael Webb, Le Corbusier in Argentina, p. 40)

Maison Curutchet is examined as a significant architectural work, which demonstrates the architect's active role in creating form and space. This is one of the remarkable architectural products of modern architecture, which is designed with the free use of the elements, and the self-expressive presence. The way the architect employs the architectural elements increases the multiplicity in creating form.

The spatial and formal richness of Maison Curutchet enables many opposite characteristics to co-exist in the design; such as the rational and the emotional values, solids and voids, regularity and freedom. This building could be evaluated in terms of both its formal and functional values. Regarding its structural system and the tectonic elements, it is possible to argue that Le Corbusier has a functionalist attitude in regulating his elements. If we evaluate the functional values of the structural elements, for example, we can claim that the building fulfills the utilitarian requirements. The task of the columns to carry the beams is achieved successfully. They carry the floors, and fulfill their tasks.

On the other hand, it is also possible to mention that Le Corbusier has a formalist attitude in designing these structural elements. Le Corbusier is generally regarded as a form-maker architect, with reference to his revolutionary forms. He uses his elements, as an artist, freely and consciously. Taking into consideration the structural elements of the same building, it is also possible to argue that they are located and shaped in a formalist manner. Columns have aesthetic values beyond their utilities. They are placed with reference to nothing but architecture.

These are the values that bring together the dual characteristics of Le Corbusier's design; the functional and the formal, the rational and the spiritual.

Here, the autonomy of architecture connotes to a property that is not completely independent from function, but rather transcends the function.

The architectural discoveries of Le Corbusier, which he had developed at the beginning of the twentieth century, were employed by him throughout his career. Those discoveries had influenced not only his architecture, but modern architecture as well. The Dom-ino principle, for instance, was a very influential illustration having both tectonic and aesthetic implications. If we consider the Dom-ino principle as a diagram that has no immediate form, but has the potential of infinite possibilities of spaces and forms, than it is appropriate to evaluate Maison Curutchet as one of the successful appearances of these possibilities.

Klaus-Peter Gast draws attention to the importance of Le Corbuser's discoveries and his interpretation of the tectonic principles and states:

> The principle had already been applied by predecessors of Le Corbusier: it is no longer necessary to distribute loads evenly throughout all the zones of a building, usually the walls, which means sizing these parts according to the forces involved. It is now possible to concentrate them at a few points. Using the new material of reinforced concrete, in which two materials distribute the forces can be absorbed by slender columns. But Le Corbusier now takes this an extremely important step further, which was to shape the future of building all over the world: the columns are no longer arranged on the plane of the façade, but set back, and moreover: they are revealed, and shown independently of all interior walls and fittings, thus acquiring an autonomous and therefore architecturally significant character. They are no longer constructional parts born of necessity, but independent elements within a whole that still belong to it and have to be designed.[93]

As Gast argues, Le Corbusier employed the structural elements and constructional techniques in terms of aesthetic assessments, which make them

[93] Klaus-Peter Gast. Le Corbusier, Paris-Chandigarh. trans. by, Michael Robinson, Birkhauser: Publishers for Architecture, 2000, p. 26.

become autonomous elements. Le Corbusier's design is a deliberation on architecture. His discoveries and structural principles were applied as "self-referential signs,"[94] that no longer depend on merely functional conditions. Lapunzina defines the architecture of Le Corbusier as "a poetry in space, the phenomenon of architecture."[95] Le Corbusier had raised architecture from a mere functional reality to a spiritual, poetic level. Accordingly, Le Corbusier reveals this intention in "Towards a New Architecture," by stating that architecture is a work of art, "a phenomenon of the emotions," beyond the issues like construction. He continues to say that architecture is a "pure creation of the spirit."

We have read autonomy of architecture through Maison Curutchet by means of the formal, functional, spatial and tectonic interpretations of Le Corbusier's "architectural discoveries." The issues that are exposed in the previous chapters are discussed through this significant design, by characterizing them as the tools and knowledge of the architect that refer to architecture itself. The attitude of Le Corbusier as the architect is considered as autonomous, regarding his will to interpret the structural, functional, and cultural realities with architecture's own knowledge, and his achievement to transform them into the field of architecture. Maison Curutchet is conceived as an autonomous work, thanks to the aesthetic existence of its structural and functional elements. Any form or space of Maison Curutchet is not already-defined, or arbitrarily selected with the given environmental situation or functional requirements. Quite the opposite; Le

[94] Peter Eisenman. "Aspects of Modernism: Maison Dom-ino and the Self-Referential Sign," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 188-199.
[95] Alejandro Lapunzina. Le Corbusier's Maison Curutchet. New York: Princeton Architectural Press, 1997, p. 171.

Corbusier differentiates the architectural values from these given situations. Besides fulfilling the external factors and functional requirements, Le Corbusier's architecture gains architectural significance. It cannot be reduced to the expression of any already existing cultural or functional value, on the other hand, it exists as an architectural intention.

As Michael Hays reveals in his article titled "Critical Architecture, Between Culture and Form," architecture should have intellectual and internal values in addition to the cultural properties.[96] That kind of attitude, as Hays states, distinguishes architecture from the forces that influence it, and consequently, architecture gains the ability to develop cultural knowledge. Correspondingly, Le Corbusier's architecture cannot be regarded as a passive mediator of culture, instead, with its internal qualities, it contributes to the formation and development of culture.

[96] K. Michael Hays. "Critical Architecture: Between Culture and Form," Perspecta: The Yale Architectural Journal. vol. 21, 1984, pp. 14-29.

CHAPTER 5

CONCLUSION

5.1 Some Clues Revealed After Twentieth Century

After examining the autonomy of architecture discipline throughout the twentieth century, in this part of the thesis, my intention is to pose possible situations for the architecture of the present time and the future. Twentieth century architecture is important not only in terms of its inventions and shifts as a discourse in itself, but also as being the influential parameter for the architecture of the twenty first century. The revolutions happened in the twentieth century are still remarkable for the architects. One of the most innovative architects of the recent times, Jean Nouvel, points to the influence of the twentieth century's architectural innovations on the architecture of his time, and states:

> Throughout this technological century we have been understandably fascinated by machines: by high-speed aircraft, by telephones which enable people to talk to one another across the globe, by dynamos of enormous power. Among the first top be struck by this was Le Corbusier, whose *Vers une architecture* takes us back seventy years. Much of modern expressionism stemmed from this fascination and a philosophy arose based on the expression of technology and structure. Since

> that time, modern architecture has constantly oscillated between austere abstraction, which typified expression at its simplest, and a dynamic expression of fluid movement and structural form.[97]

Being a contemporary architect, Nouvel clearly stresses the significance of the revolutionary issues and concepts of Modern Architecture and the way they were employed by the subsequent modern architects. It is quite understandable from his argument that the concepts like technology and machine, which had emerged at the very beginning of the twentieth century, influenced and enlightened Nouvel's architecture. Nouvel continues by putting emphasis of the relationships of form and function in today's architecture and states; "[t]oday we are entering a period in which form gains its independence from function. Increasingly, function has come to be technologically satisfied without making any reference to form."[98]

Regarding the newly emerging conceptions, in this thesis, it is considered very important to evaluate and scrutinize the architecture of the twentieth century, with the intention of not only discovering groundbreaking conceptualizations of architecture, but also taking them into consideration of the architecture of today and the future.

In his theoretical and practical work, Nouvel exposes his objective to achieve architectural autonomy, in order not to obey the existing conventions and rules. He refuses to use fixed rules, already defined forms, and same materials, with the intention of accomplishing disciplinary autonomy.[99] By searching for

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[97] Jean Nouvel. "Presentation," in Technology, Place And Architecture: the Jerusalem Seminar in Architecture. ed. by Kenneth Frampton, New York: Rizzoli, 1998, p. 76.
[98] Ibid p. 78.
[99] http://www.floornature.com/worldaround/articolo.php/art6/5/en/arch7.

autonomous architecture, his aim is to create unique forms and solutions, which has reference to architecture's own knowledge.

Another significant example for one of the architects that practice after 70s is Peter Eisenman, who has been producing architecture in both theoretical and practical means. Being an active participant in the theoretical debates that appeared in 70s and a practicing architect that pursues the technological developments in building technologies, Eisenman reveals his interest and appreciation for the architecture of the early Modern era. Eisenman searches for autonomous architecture in terms of the syntactic facility of formal values. Gandelsonas emphasizes Eisenman's attitude towards architectural autonomy and states:

> Eisenman's linguistic structuralism is in these terms an attempt to criticize the generally held notions of 'meaning' in architecture, to make the definition of architecture as language stand against the evident lack of rigor in present theoretical discourse, against the purely subjective and non-measurable aspects of architecture. Accordingly he is initially drawn to concentrate his attention on the only objective material provided by architecture, that is form itself. Considering form in its syntactic capacity, Eisenman sees it to be ordered according to specific laws internal to architecture and not derived from notions outside itself.[100]

Eisenman mentions about the influence of the early modern architecture, particularly the architecture of Le Corbusier, on his theoretical and practical work. He examines architecture's self-referentiality in accordance with architectural signs through an assessment of Le Corbusier's Maison Dom-ino.[101]

> As a plan and section diagram, Dom-ino seems rather simple and straightforward statement. Perhaps for this very reason - its apparently extreme

[100] Mario Gandelsonas. "From Structure to Subject: the Formation of an Architectural Language," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by K. Michael Hays, New York: Princeton Architectural Press, 1998, pp. 202-203.
[101] Peter Eisenman. "Aspects of Modernism: Maison Dom-ino and the Self-Referential Sign," in Oppositions Reader: Selected Readings from a Journal for Ideas and Criticism in Architecture, 1973-1984. ed. by. K. Michael Hays. New York: Princeton Architectural Press, 1998, pp. 188-199.

> clarity - it is often taken as an icon and a structural paradigm, an example of the potential of the then new technology, a prototypical unit expressing ideas of mass production, repetition and so on.[102]

Eisenman draws attention to the aspects of the Dom-ino frame and states that it could be considered as the educational declaration of the spatial issues of Modern Architecture. By referring to Colin Rowe, Eisenman states that; "here in the concentrated energy of a few simple gestures are contained implications which for the next twenty-five years are to condition the development of modern architecture."[103]

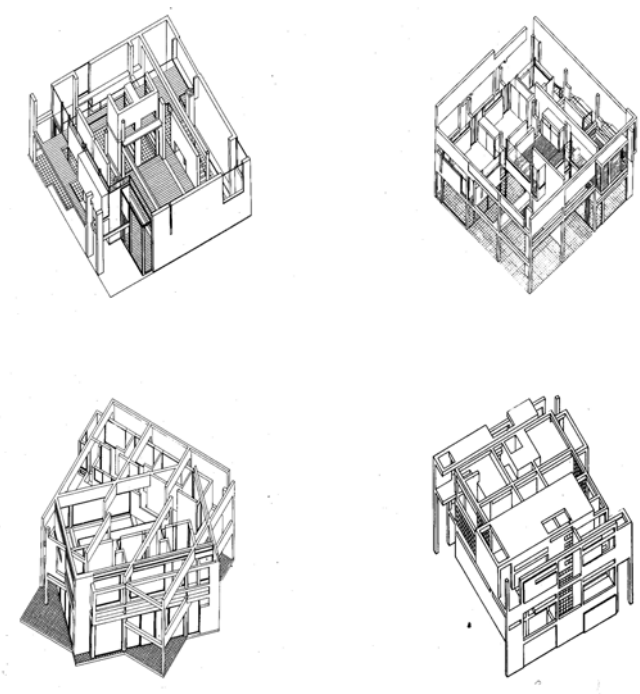

Fig. 36 Peter Eisenman, House I, II, III, IV.
(Source: K. Michael Hays, Oppositions, p. 204)

[102] Ibid., p. 191.
[103] Ibid.

Another significant architect of our time is Rem Koolhaas, whose work exemplifies programmatic freedom in architecture. Koolhaas searches for an architecture that liberates spatial activities that architecture can make possible. Kim Dovey and Scott Dickson examine the freedom of Koolhaas's architecture and state:

> Koolhaas seeks an architecture that encourages an irruption of events, social encounters, and opportunities for action. Rather than designing with a particular hierarchy of spaces and narratives of spatial movement in mind, he generally works towards a spatial structure that allows a multiplicity of choices for pedestrian flow and encounter.
>
> Koolhaas does indeed challenge the primary genotypes of sociospatial reproduction yet at the same time he generates illusions of architecture that has been freed from spatial ideology. And these illusions can be a cover for new practices of power or for more of the same.[104]

As Dovey and Dickson state, Koolhaas combines the concepts and issues of the architecture of the early modern period, such as "the dialectics of inside/outside (as in Mies' Farnsworth house) and vertical/horizontal (Corbusier's Villa Savoye), but with greater programmatic dynamism and complexity."[105]

[104] Kim Dovey and Scott Dickson. "Architecture and Freedom? Programmatic Innovation in the Work of Koolhaas/OMA," Journal of Architectural Education. 2002, pp. 5-13.
[105] Ibid.

Fig. 37 Rem Koolhaas, OMA, Floirac House.
(Source: http://www.archidose.org/Aug99/080299.html)

Fig. 38 Rem Koolhaas, OMA, Floirac House.
(Source: http://www.archidose.org/Aug99/080299.html)

What the architects of today, such as Koolhaas, Nouvel, Eisenman or MVRDV, intend to accomplish is to find more independence, in terms of their tools of formal, structural, spatial, programmatic or functional elements. These researches

to gain the discipline more freedom is manifested by those architects in different ways, and celebrated in various architectural forms and spaces. These explorations of autonomous qualities of the disciplinary boundaries make possible these architects to propose innovative solutions, forms, and spaces for the future architecture.

Twentieth century is the period when the practice of architecture had been nourished by and coexisted with theoretical works. Architectural Modernity witnessed the position of architecture in which architectural theory had started to be produced by the practicing architects, the critics and historians.

It is apparent that Modern Movement effectively influenced the architecture of the twenty first century. For that reason, this thesis has attempted to mine the influential developments that occurred throughout the twentieth century, and examine architecture's position in light of that. The architecture of Le Corbusier is taken as the case study, because of his revolutionary attitude towards architecture. It is still important to discuss his architecture, when the practicing architects are still being influenced by him. To go back to the beginning of the early modern era, and re-consider modern works, particularly that of Le Corbusier, is not to reproduce the past, but to discover the resources.

Accordingly, by examining the architects of the New York Five, Peggy Deamer puts emphasis on the influence of the architecture of Le Corbusier on today's architecture. Deamer states that the compositional approaches of the architecture of Le Corbusier mark the work of the Whites, such as; "frontal/rotational; solid/void; layering/recession; figure/ground; grid/dissolution of the grid; virtual/actual solids and voids; whole and partial Platonic figures;

regulating lines, datums, and golden proportions."[106] These design elements are derived from the innovative work of Le Corbusier. With this scrutiny, the Whites raise the formal characteristics of architecture to an epistemological level. Like many other architects of the present time, the Whites re-evaluated and employed significant principles and concepts that had been revealed in the works of early modern architecture.

On the subject of the architecture of the twenty first century, it is crucial to mention about the developments that occurred in material production, digital technologies, and CAD representations. Besides the technological developments, it is also important to discuss today's architecture in terms of new spatial needs and social requirements.

What is crucial is to draw attention to the ways in which these technologies, spatial, and social transformations of the twenty first century, will be transformed into the field of architecture.

5.2 Concluding Remarks

This thesis is concerned with the interior values of architecture. It has attempted to argue that by dealing with the interior values, architects became more aware of their equipment. The condition of architecture, between the social product and an autonomous discipline, was attempted to be examined with the intention of revealing the position of the architect. Searching for the boundaries of the discipline, this thesis is concerned with exposing the interior characteristics of architecture and design process.

[106] Peggy Deamer. "Structuring Surfaces: The Legacy of the Whites," Perspecta: The Yale Architectural Journal. vol. 32, 2002, pp. 90-99.

This study attempts to identify the concept autonomy, not as a property indicating to an architecture that is completely independent from its social and cultural environments, but as a value implying architecture's interior qualities that are significant in the discipline's own boundaries. This examination is made by discussing architecture as a discipline and as a practice. Accordingly, when regarded as a discipline, it is considered important to examine the correlations of architecture with its social context and cultural circumstances, and to investigate the boundaries of the discipline with relation to external realities. It is arrived as a result of this scrutiny, that as a discipline, architecture is semi-autonomous, which has many levels of interrelations. However, it is attempted to reveal that architecture has the ability to transform the exterior data, that it needs to reflect, into its own domain with its inherent qualities.

When regarded as a practice, on the other hand, these inherent qualities and internal elements of architecture are discussed, within the framework of Modern Architecture, starting from the beginning of the twentieth century. After investigating the changing conditions in the theory and practice of architecture throughout the twentieth century, it is wise to claim that with the technologic revolutions and social modernization, the role of the architect had changed, and architecture had become more independent in terms of its equipments. The change that happened in the modes of production affected architecture's design process, and the tools of the architect as well. Many avant-garde architects of the twentieth century represents this new formation of architecture with their revolutionary designs. Therefore, the aesthetic revolutions and tectonic principles in modern architectural design were examined with the intention of assessing architecture's

internal values. Modern architecture conveyed the relation between architectural form and social context; however, it was not the social context or function that merely determines form in architecture. After the Modern Movement, architecture had started to provide links with external realities on the one hand, and it gained its freedom in terms of its use of the elements, on the other.

The period after 1970s has been considered as the second stage of the twentieth century, when the position of architecture had been re-examined with relation to the cultural environment and the theoretical developments happened at that time. To observe the situation of 1970s is for the benefit of making a statement on today's position of architecture.

As a case study, Le Corbusier's Maison Curutchet, which is one of the architect's significant designs, is examined, with the aim of decoding the previously investigated conceptions. Being both a theorizing and a practicing architect, Le Corbusier was examined by means of his architectural inventions that reshaped twentieth century architecture. Different from his precedents, Le Corbusier had contended with technological developments and societal necessities, by transforming them into the language of architecture. Through the examination of Maison Curutchet, many internal and external characteristics of architectural design have attempted to be revealed. This building is important because it demonstrates Modern Architecture's formal principles and exemplifies Le Corbusier's proposals for Modern Architecture. Throughout the analysis of Maison Curutchet, it is intended to reveal the internal characteristics of design, from the spatial, aesthetic and tectonic assessments. Depending on this analysis, it is wise to state that the architecture of Le Corbusier appears as a demonstration to manifest architectural

autonomy. Consequently, architecture's values as a practice were examined within the framework of Modern Movement, by dealing with internal elements and qualities; and it is arrived as a result that architectural practice has autonomous values independent from its circumstantial forces.

This thesis is offered as a scrutiny to draw attention to the disciplinary shift happened at the beginning of the twentieth century, and an investigation to question the changing position of architectural production at the turn of the twenty-first century. It is intended to pose a defined framework and significant questions to assess architecture's institutional situation. It is aimed to be a contribution of the continuing scrutiny of theoretical and practical levels of twenty-first century architecture. By associating the early modern period to the present time, this thesis reveals the subjective involvements of particular architects and movements, which still have significance nowadays. The transformations have been occurring in the discipline of architecture, and their connotations on architectural production are conceived as remarkable issues in proposing new ways in our discipline.

This study argues that the architecture of our present time is influenced by the revolutionary architectural developments that occurred in the twentieth century. The reason to re-evaluate this period, and particularly Le Corbusier, does not derive from the aim to reproduce the architecture of the past, but rather to take them as origins or clues for the development of the architecture of today.

This thesis has investigated the issue of autonomy with the intention of posing new questions into the center of architecture. The debate on autonomy enables to discover the inherent dynamics of the design process and to evaluate the tools of architecture's own. It is considered very important to discover these internal

dynamics, in order to produce architecture, which deals with external realities. It is attempted to state that architecture discipline has the ability to transform these exterior realities into its own domain, with its own knowledge. To search for the autonomy of architecture enable architects to discover new ways in the design process.

As a result, architecture is examined with relation to its cultural circumstances; by arguing that architecture is not only a part of culture but also one of the constituents of it. Besides fulfilling cultural values, architecture has the ability and task to form and transform the culture, with its own internal values. The architect needs to work as an active performer in the development of culture with his/her intellectual architectural intentions.

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