Problems of Technology and Its Consequent Meaning in Architecture: Practical Implications on Derivative List of Mediations

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ABSTRACT

By identifying the instrumental-anthropological perspective based on Heideggerian criticism on concerning modern technology, this conception has been illustrated as an independent and autonomous feature of technology in which, even, all oriented domination of technology has transformed human nature. What happened in the twentieth century is technology's vast penetration into language and also architecture, which caused substitution of technology itself instead. In this sense, meaning in architecture has not been far away from the reach of technology. Accordingly, as a research problem, it was aimed to investigate the impacts of the issues emerged by technological instrumentalization on architecture in philosophical ground, in order to figure out its consequent meaning in realization. Moreover, by following Heidegger, among different philosophical perspectives on state of technology, a substantive perspective has been introduced in order to wake technological aspects of architecture, and to fill the theoretical gaps in architectural literature in this topic.

This qualitative study has mainly been considered in order to explore and describe a case through a list of mediations emerged themselves from literature review and defining an empirical phenomenological field method of inquiry and its practical implications on the case. Through implication of the field, the Royal Sun Residence complex has been chosen, in Yeni Iskele Region, Northern Cyprus. By employing the phenomenological approach, the observational field proper notes and participations of the inhabitants and the architect, were considered. Therefore, through the process of coding the material data collected, and bracketing out the

problematic research subjectivities, the two major themes as environmental universality and building machinery systems were emerged. Those have also explained deliberatively through the process of decontextualization of the environment, homogenization of space and superficiality as a reductive state of turbulence in the environment.

To sum up, this process of forming the built environment has been justified by giving the absolute value to technological ordering of the built environment. Together with, different aspects of contextual understanding of the built environment and identity of place were concerned to be reduced into an artificial framework of the technological phenomenon; in which the human autonomy is played down into a technological agent of choice through the process of building his living environment. In fact, this research has been introduced the technological progress as a mode of revealing which identifies the postmodern space and time. Furthermore, as a completion of the study for continuation of this research in future, the necessity of having ontological look was described towards building- creation of a thing- as the human act rather than representation.

Keywords: Postmodern Architectural Theory, Instrumental-Anthropological Perspective on Technology, Substantive Perspective on Technology, State of Meaning in Architecture, Empirical Phenomenology.

ÖZ

Heidegger’ in modern teknolojiyi ilgilendiren eleştirisine dayalı olarak, teknolojinin dünyaya araçsal-antropolojik bakış açısı, bağımsız ve özerk bir özellik olarak, insan doğasını dönüştüren ve onun üzerinde hakimiyet kuran bir gerçek olarak tanımlanmaktadır. Yirminci yüzyılda teknolojinin dil ve ayrıca mimariye yaptigi muazzam tesir ile teknolojinin dil ve mimarinin yerine geçmesine sebep olmuştur. Buna göre, bir araştırma problemi olarak, felsefi açıdan mimarlıkta teknolojinin araçsallaştırılmasının mimari üzerindeki etkisini çözmek için, ortaya çıkan problemlerin sonuçlarını araştırmak amaçlanmıştır. Ayrıca, günümüzde teknolojiye farklı felsefi bakış açıları arasından Heidegger felsefesi takip edilerek, mimaride teknolojik yönleri anlamak ve bu konudaki mimari literatürde teorik boşlukları doldurmak amacıyla tözel bir perspektif tanıtılmaktadır.

Bu kapsamda, söz konusu nitel çalışma literatür araştırmasından ortaya çıkan deneysel fenomenolojik bir alan metodu ve onun ilgili pratik sonuçlarını gösteren ilişkilere yönelik bir listeleme yolu ile bir örneğin tanımlanması amacıyla düşünülmüştür. Çalışma alanı olarak, Kuzey Kıbrıs'ta Yeni İskele Bölgesi'nde Royal Sun Residence yerleşimi seçilmiştir. Bu süreçte, fenomenolojik yaklaşım kullanılarak, gözlemsel alanda uygun notlar tutulmus ve yerleşim sakinlerinin ve mimarın katılımları değerlendirilmiştir. Bu nedenle, toplanan verilerin kodlama ve araştırma öznelliklerini elimine etme sürecinde, çevresel evrensellik ve bina makine sistemleri olarak iki ana tema, çevrenin bağlamsızlaştırılması, mekanın homojenizasyonu ve indirgeyici bir durum olarak yüzeysellik nedeni ile çevrenin savrulma süreci bilinçli bir şekilde açıklanarak ortaya çıkmaktadır.

Özetle, ilgili örnek yapılı çevrenin oluşturulmasindaki süreçlerin, tüm yapay bicimde gerçekleştiği, yapılı çevrenin teknolojik düzenlenişine mutlak şekilde değer verildiği doğrulanmaktadır. Aslında, bu araştırma post modern mekan ve zamanı tanımlayan teknolojik gelişmeyi tanıtmaktadır. Ayrıca, gelecekte bu araştırmanın devamına yönelik ofarak, ontolojik bakış açısı ile ve bir insan eylemi olarak yapım – nesne oluşumunun – temsil yerine kurgulanması önerilmektedir.

Anahtar Kelimeler: Post Modern Mimarlık Kuramı, Teknolojiye Araçsal-Antropolojik Bakış Açısı, Teknolojiye Tözel Bakış Açısı, Mimarlıkta Anlam, Deneysel Fenomonoloji.

In Memory of Hadi Mirmiran

1945-2006

In Admiration of

His All Dedications and Commitment

To Iranian Contemporary Architecture

And;

In Memory of Abbas Kiarostami

1940-2016

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His Unsparing Presence

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INTRODUCTION

1.1 Background of the Study

> *It is from without architecture that one can take a true critical distance. Outside means from the city, from other fields, from other cultural and representational systems* (Agrest D. I., 1993).

Since the mid-1960s, interdisciplinary architectural theory indicates the lack of hegemony of a single attitude or a single outlook, which is referring to a distinctive attribute of the pluralist period named as *postmodern*. Despite the confusing features existing in postmodern theory, it encompasses a wealth of architectural themes (history and the issue of disciplinary tradition, place, social responsibility versus autonomous practice, body and the meaning) which are framed by absorbing critical-theoretical paradigms or ideological frameworks. The result of this wealthy ground is the heterogeneous and diverse production of architecture during the last decades that assist us in reading and understanding the relationship among postmodern themes. In addition, they help to illuminate the extensive review and criticism of postmodern standpoint on modern experience and specifically modernism – and its contradictions and contrasts – in architectural discipline.

One of the mentioned paradigms – as one aspect of interdisciplinarity – is the dependence of architectural theory to the philosophical mode of inquiry recognized

as phenomenology. Namely, this philosophical thread initiates postmodern attitudes towards site, place, landscape, and notion of making (particularly tectonics), so that, this mode has been sometimes unquestioned and overlooked. In the phenomenological sense, architectural postmodern theory has formulated a distinct position for a careful consideration on *place*. However in architectural theory of the preceding period, these themes are mostly characterized, but the *place* and the body, have not been acknowledged by Modern architectural movement. According to Nesbitt (1996) , they were not recognized by Modern movement because of;

> *Its focus on accommodating the collective over the individual, expressed in a language of universality, both technological and abstract. The celebration of the machine as formal model, for instance, excluded the body* (p. 40).

In this concept, in Postmodern Architectural theory, Art takes a more emphasized role in comparison with technology. Anthony Vidler (1998) in his introduction to Bernard Tschumi's article comes so close to this and he says;

> *The question of the art of architecture, closed by the functional ethic, may well be opened, with all its disturbing implications, by this attempt in the domain of ideas* (p. 355).

He continues;

> *Until recently architects more concerned to develop machines for living in than art to wrestle with. The positivistic utopia of modern architecture was in this way based on the repression of death, decay, and the pleasure principle* (Vidler, 1998, p. 355).

In the meantime, rapid and pervasive growth of technological in all aspects of human life, and more importantly, its undeniable impact on architectural design and theory, is leaded to a positivistic emphasis on rationality, function, a kind of abstract aesthetic and the application of scientific principles to architectural design. Eventually, in this sense, it is terminated by marginalizing beauty and the sublime as subjective architectural issue, and moreover, a formalistic comprehension of architecture. While in this research, this modern belief is criticized that the theory has to be validated in terms of its applicability. For the reason as Perez-Gomez argues, it entails the reduction of true theory to the status of applied science. Besides, in fact, this theory is unresponsive to myth and true knowledge and is restricted with an efficient domination of material world (Perez-Gomez, 1986, pp. 26-29).

In this way, architecture – as a subjective matter dependent upon architects' *propose* (Raskin & Osborn, 2010, p. 9), is affected by technological. So those, in postmodern era, the representation of this pervasive fiction and its impact cause the instrumental perspective of concerning technology in architecture. Therefore, it deeply drags all architectural themes into challenges, particularly the meaning.

In this research, it has been aimed profoundly to address and discuss the subject of architecture in postmodern epoch, the contribution of technology and the state of consequent meaning in architecture by taking a phenomenological approach. And subsequently, the structural relevance among them, deduces to a semiotic expression of postmodern theory's themes in architecture.

In this sense, referring to Martin Heidegger's works and his disapproval criticism on contemporary technology, has leaded this research to look through his noble

philosophical point of view on essence of technology and also phenomenological criticism to elevated positivistic thoughts- optimistic views towards the benefits that the expansion of scientific method could bring to humanity (Nesbitt, 1996, p. 29). In which, consequently, this research has been concluded to highlight the ultimate value of addressing to devalued *being* as an architect, and especially in architectural discipline, appealing of rethinking technology's contributions in this period of time.

1.2 General Overview on Problems of Technology

"Technology is a means to an end", however this statement is correct but is not true. According to Heidegger (1977);

> *The correct always fixes upon something pertinent in whatever is under consideration. However, in order to be correct, this fixing by no means needs to uncover the thing in question in its essence. Only at the point where such an uncovering happens does the true come to pass. For that reason the merely correct is not yet the true* (p. 6).

With regard to conventional thought, technology is a contrivance and its progress steers us towards a 'Utopia,' but apparently we have been approached to an undesirable and frightening 'Dystopia.' In a way that, the evolution of instrumental conception of technology illustrates an independent and autonomous feature of technology in which, even, all oriented domination of technology has transformed human nature. What happened in the twentieth century is technology's vast penetration into language and also architecture, which caused substitution of technology itself instead. In this sense, meaning in architecture has not been far away from the reach of technology. Therefore, if technology is supposed to be only a

means to an end, it is not purely a contrivance and a neutral phenomenon. According to Heidegger (1977);

> *We are delivered over to it in worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology* (p. 4).

Now, by regarding to concerning modern technology questioned Heidegger: what is the state of architectural discipline today? This was the inquiry postured in 1960s by the architectural critic Reyner Banham (1960) in his book and in his sequential articles he has published in the *Architectural Review* under the heading of '*Stocktaking*,' (Banham, 1960, pp. 48-55); which analyzed what he has seen as a growing strongly opposed thoughts on tradition and technology in architectural discipline. Subsequently, in actively aggressive presence of technology, these questions take account that what is our experience of architecture? Does technology have to guarantee the correlations between nature-context and consequent semantic structures of architecture, or it is allowed to remove them in distance by creating the artificial milieu? If the criterion is to regard technology as neutral-pervasive phenomenon, and if distance from context and its consequent semantics is a chronic dream, the optimistic view brings us to the world in such a Dymaxion dwelling machine of Buckminster Fuller or Bauhaus's dwelling machine (Fig.1).

Figure 1 : Dymaxion House or Dymaxion Dwelling Machine
By Buckminster Fuller, 1946 (MoMA, 1946).

Following this, in 1990s, there was a clamor of debates in between technophiles and technophobes in architectural discipline, in which some architects were encouraged to neutrally look at the modern technology aimed to refuge from these discussions (Vidler, 2013).

1.3 Definition of the Research Problem

As Alan Colquhoun (1989) points out;

> *Architecture derives its meaning from the circumstances of its creation; and this implies that what is external to architecture is of vital importance* (Colquhoun, 1989, p. 254).

At the central point of the postmodern discussion of meaning in architecture, we frequently encounter the element posited as that which cannot be removed from architecture, technological state of architecture and tectonics. In this manner, technological state of architecture has been assumed more generally as a rich source of meaning. Moreover, this position is deeply tied to a phenomenological interest in the "thingness" of architecture and condenses meaning in the built environment-or architecture's capability to gather. In this concept, this research focuses on Instrumental-Anthropological definition of technology introduced by phenomenologist philosopher Martin Heidegger and his criticism on concerning

modern technology. And subsequently, it introduces the research problem by investigating the impacts of this distinct but customary conception of technology on architecture in philosophical ground, in order to figure out its consequent meaning. By following Heidegger, among different philosophical perspectives on state of technology today, substantive perspective has been introduced in order to wake technological aspects of architecture in this ground by referring to the recent works and thoughts on this discussion.

Moreover, this study has been aimed to fill the theoretical gap in architectural literature in this point together with representing a general picture of possibilities for approaching to problem of technology in philosophical ground of architectural discipline.

1.4 Aims and Objectives

As initial part of larger qualitative research project, this study has been aimed to investigate the problems of modern technology through conventional instrumental-anthropological perspective towards technology and its impacts on architecture and built environment. Furthermore, by considering the issues emerged by technological instrumentalization, the substantive conception of technology was also represented as entire reaction to those problems. In this manner, firstly, it should be mentioned that this research has intentionally been kept apart from the existing theories of tectonics in architecture in order to explore and develop a theory through a list of mediations emerged themselves from literature review and defining an empirical phenomenological field method of inquiry and its practical implications on the case. However, those theories have been studied and considered in all the research process aimed to fulfill their theoretical gaps in further studies by identifying the substantive

approach towards the technological state of architecture. In this regard, this research was literally aimed to answer these research questions mentioned below.

- What are the major characteristics of modern technology? And how do they represent themselves in built environment and architectural space?
- What the instrumental-anthropological perspective of technology? What are the issues emerged by this perspective in philosophical ground and in reality?
- What impacts does instrumental-anthropological perspective have on forming the built environment?
- What is the consequent meaning of instrumental-anthropological perspective of technology in built environment and architectural space?
- What is the alternative perspective towards the problem of instrumental-anthropological conception of technology in philosophical ground of architecture?

Therefore, to create a phenomenological guideline as field method of analyzing the relationship between meaning –as the essence of architecture- and modern technology in architecture today and entirely the state of architecture today, this research is conducted to focus on the characteristics of modern technology and issues of technological instrumentalization emerged in philosophy ground that are influencing all aspects of societies including built environment and architecture. Finally, on the one hand, the intention of this research is to suggest and to encourage professionals, architectural thinkers, researchers and architecture students towards more inclusive way of thinking about tectonics and technological state of architecture today.

It is aimed regard to the issues emerged themselves through empirical phenomenological study on the case based on this research's list of mediations. By having this practical implications of the field study on the selected case-Noyanlar Royal Sun Residence in Yeni Iskele district in North Cyprus, it has been tried to firstly experience how this field method of inquiry can be practiced, and subsequently, it was aimed to develop a theory and description on the case through applying the list mediations resulted from theory named second-order constructs. In this regard, through the practical implication, the new themes, subthemes and codes were emerged itself which have been named as first-order constructs. The first-ordered constructs were resulted from the process of coding the observational field notes written on the case. In this sense, those themes and subthemes have deliberatively tried to explain the instrumental attributes of technological mode of architecture today. On the one hand, as main themes, the building machinery systems created by technological systematization of power, capital and media, and on the other hand, environmental universality as the mode of technological transmission of the built environment into the universal dimensions without considering the contextual values, were introduced to develop the discussion. In the case of first main theme, the interconnection of technological systems of power, capital and media were considered as subthemes. Moreover, the turbulence created in existing physical and social settings in order to build a non-contextual contrasting entity, decontextualization of built environment, homogenization of space and superficiality in space, were identified as modes of environmental transmission through forming a universal environment. Therefore, through technological automatism opposed to human autonomy, they have acted as subthemes of environmental universality in this research by reasoning that these subthemes and theme have represented the process

of forming the built environment not as an ontological act in which the built environment created is assumed as a thing rather than its representation.

On the other hand, based on concerning and questioning neutral representations and responses to modern technology in architectural discipline, substantive perspective of technology is recommended to be taken into consideration aimed to follow the emerged theoretical frameworks and practical lived experiences in architectural discipline. It will be more meaningful, by considering that technology is ontologically what portrays the variation of this epoch of *being*; along these lines entrance of its essence or shape turns into a focal philosophical concern while we are aimed to comprehend our time and set up a reaction to it. In this sense, out of scope of this thesis, a hypothesis has been sketched in which the impacts of technological instrumentalization delivered a holistic pattern around the research subject to reconsider substantively the build environment and architectural discipline.

1.5 Research Methodology

As mentioned above, as a research question, this research began by evoking a philosophical assumption on concerning modern technology and its impacts on architecture today. In this sense, this study has been divided initially into four main parts: philosophical foundations of instrumental perspective of technology, theoretical framework of meaning in architecture, philosophical ground of substantive perspective and its consequent theoretical frameworks in architecture, ,and finally, by referring to Seamon (2000), first-person method toward empirical phenomenological mode of research inquiry as a field study on the issues of modern technology and technological instrumentalization in architecture and its consequent meaning in architecture and built environment.

In this sense, this qualitative research has been involved with particular dimensions of a research in the field of humanities, social research. In this regard, the phenomenological type of humanities research has also been supported by a social science type of research. By highlighting the reasons below, firstly, the field method has been identified and limited partially by this mentioned phenomenological approach since it draws on the domain of experience only nearest to the researcher and his own particular lived experience in the built environment under investigation. In this sense, subsequently, the dimensions and perspectives emerged in this research, can be explored more distinctly in further studies by having more focus on each effect, mediation or indicator. The reasons of designing the research methodology as described above are based on the following challenges of this research:

- Holistic effects of the problem of technology which requires research of both humanities and social dimensions;
- Effects of problem of technology on non-discursive architectural meaning which causes serious problems in verbal and even graphic communication;
- Large number of mediations to be experienced. By regarding that the indicators of these mediations might also differ extensively from case to case;
- Veil eliminating unconcealment of these mediations according to Heidegger`s philosophy.

Together with, the qualitative approach of this research includes multiple sources of data consisting of the indicators resulted from literature review and selected theories, and data collected and analyzed from utilization of first-person phenomenological observation and empirical phenomenological method of inquiry on the selected case-

Noyanlar Royal Sun Residence complex in Yeni Iskele district in Northern Cyprus. More importantly, as the entire qualitative method of research, the participants' meaning has been consider interactively to keep a focus on learning the meaning that they carry about the problem of modern technology in the built environment (Empirical Phenomenology). It was aimed to bracket out the relevant research subjectivities from the study by considering their supports or reactions.

Basically, the literature reviews on philosophy of technology and theory of meaning in architecture have been done to identify the list of mediations and their indicators (Second-order constructs), to make sense of them, and to classify them in an inductive way, and finally, to establish a comprehensive set of indicators sketched in a field guideline applicable to this empirical phenomenological study.

In this regard, this research includes a literature survey on the state of technology in historical epoch and contemporary aimed to classify the techniques and modern technologies based on their characteristics in philosophical ground, and to recognize the discontinuity appeared in between them. By focusing on characteristics of modern technology, the issues emerged by instrumental-anthropological perspective on technology are introduced towards the definition given by Heidegger (1977). Together with, the literature survey which has been done on theory of meaning architecture assists the study to identify the concerns, sources, types and levels of meaning in architecture.

By considering the comprehensive set of indicators, the empirical phenomenological method of inquiry is employed by referring to the method defined by Aspers (2009). Therefore, the study on field has been formulated in seven steps mentioned below;

- Definition of research questions;
- Conduction of a preliminary research on the topic;
- Selection of a theory and utilization of the theory as a scheme of reference;
- Exploring first-order constructs and bracketing down the scheme of reference;
- Construction of second order constructs (mediations);
- Check for unintended consequences;
- Relate the evidence to the scientific literature and the empirical field of study.

In this regard, to have practical implications of the field, a case has been chosen. And the steps sketched below were applied on the Noyanlar Royal Sun Residence as a new gated community built in Yeni Iskele district in North Cyprus. Moreover, by utilizing a phenomenological qualitative approach towards the case, the steps below were applied, however, there are some modifications done in general structure of the phenomenological procedures applied to participation of inhabitants through questionnaires instead of having several interviews, aimed to result more efficient research data materials (First-order construct) for this study;

- Site Inspection and qualitative observation on environmental mode and the derivative list of mediations;
- Participation of the inhabitants by answering the questionnaires provided by investigator; with regard to the multicultural context of the case, the qualitative data collected through the distributed questionnaires were aimed to illustrate a general picture of the inhabitants' points of view regarding to have more number of residents involved to the study, however, this method of inquiry is not generally recommended in such studies;

- Participation of the architect by having interview with investigator; in this process, the data collected were employed to differentiate the research objective and subjective points by getting supports or reactions of the architect;
- Interpretations on collected data materials as field proper notes;
- Process of coding the field notes;
- Deriving the themes and subthemes;
- Discussions on the case through bracketing out the research subjectivities from objective points.

1.6 Limitations

As mentioned in aims and objectives of this research, this dissertation has been formulated as an initial part of broad research project which is targeted to substantively develop a theory of tectonics in following steps. Therefore, this study has just focused on the problems of modern technology and its assumed roots in instrumental-anthropological perspective on technology.

In the chapter two, named 'state of meaning in architecture,' at the beginning, the various theories of the meaning in philosophical ground has been identified into five theories, which this study as tried to focused only on Mentalistic and Mediational on the one hand, and Linguist theory on the other hand in order to describe non-formal and formal characteristics of architecture's communicative structure. In this sense, meaning in architectural discipline has been classified by formal or discursive meaning and non-formal or non-discursive meaning. Furthermore, the sources of the meaning in this chapter, has been limited into Typology, Function and Tectonic according to Nesbitt. In this sense, different types and levels of meaning have been

identified by inspiring from Heshberger (1970; 1988). At the end, the framework based on three selected theories has been delivered in order to discuss the state of meaning in architecture.

In the chapter three, named 'instrumental-anthropological perspective on technology,' the study has been firstly limited to the substantive technological theorist Ellul's notion of technological society and his categorization of technology through primitive techniques and modern technology. By considering his delivered characteristics of primitive and modern technology, the study has been reached to the discontinuity of historical epoch and contemporary. Therefore, by referring to the definition of instrumental-anthropological perspective on concerning technology given by Heidegger (1977), the study is limited into three main perspectives towards the problem of modern technology: Instrumental, critical and substantive perspectives. In this regard, the critical perspective towards modern technology has been considered out of scope of this research and subsequently it is eliminated from the discussion (Mitcham, 1994; Feenberg, 1999; 2002; 2005). By following Heidegger's definition, this research has focused on the primary and secondary issues of instrumentalization derived from Heideggerian research on instrumentalization by Feenberg (1999; 2002; 2005). In this regard, in categorization of primary issues of instrumentalization, issues of decontextualization and reductionism correspond with the significant aspects of Heideggerian notion of enframing, and furthermore, the latter two issues explain the form of action implied in Habermas's media theory. Therefore, the focus of the study is more on the first two of primary issues.

In the chapter four, by considering the major concern with the substantive effect of modern technological phenomenon on human autonomy and the human condition has been considered as a repeating topic in the accusing evaluates of "mass society" offered by numerous twentieth century thinkers and social scholars such as Heidegger (1977), Jonas (1984; 2004), Arendt (1958; 1990), Mumford (1970), Fromm (2010), Gadamer (1977), Benjamin (2008), and Ellul (1964). In this ground, Heidegger's notion has been selected as kind of substantive reaction to the issued emerged through instrumental-anthropological perspective on technology. By limiting the discussion on Heidegger's notions, this chapter has been formulated only to open the discussion on his points of views on concerning technology by referring mainly to his major relative sources in this topic including *Question Concerning Technology* (Heidegger, 1977), *Being and Time* (Heidegger, 1996), *What is Called Thinking?* (Heidegger, 1968), *Overcoming Metaphysics* (Heidegger, 1973), *Only a God Can Save Us:Only a God Can Save Us* (Heidegger, 1993) and *Poetry, Language, Thought* (Heidegger, 1971). In this regard, following the Heideggerian phenomenological strategy, firstly, his criticism on subjective Instrumental concept of technology has been sketched in order to introduce his thought on concealing-revealing ratio and mode of revealing in technology in which technology emerges itself as a field of standing-reserve. By differentiating the mode of correctness from the truth, and essence of technology from technological, his thought on *Gestell* or enframing is discussed aimed to investigate, on the one hand, the issues of modern technology in his point of view and also, on the other hand, his salvation towards the research problem by identifying the concepts of *techne* and *poeisis*.

In the chapter five and six, the necessity of having phenomenological approach to field has been firstly sketched and the steps of empirical phenomenological approach

were extensively explained together with delivered results. Furthermore, in this approach to the phenomenon of instrumental-anthropological perspective of technology, the progression made by empirical phenomenology over past steps to do phenomenological study can be condensed in four focuses mentioned below.

- It is firstly empirical;
- It makes utilization of and incorporates theory in experimental examination;
- It checks for unintended outcomes;
- The iterative character of the procedure is intended to abstain from being blindfolded by speculations and theories.

By aiming to have a practical implication of field study, the purpose of the first observation was to investigate and experience the built environment of the case in order to have initial analysis on the case. The major concern of the initial analysis was to explore the spatial and formal characteristics of architectural product in such a way that the architect's own approach/concern regarding to this particular building design will be understood. To achieve this, the different groups of building components will be investigated among widest range of architectural characteristics which are categorized below;

- Relationships of spaces in terms of functional differences;
- Relationships among different attributes and formative features of the designated architectural product.

Due to the limitations of the empirical phase of this study, the primarily approach to the case has been limited to the study on formative characteristics of the designated case, based on the classification introduced by Clark and Pause (2012).On the other

hand, spatial characteristics are all analyzed with regard to the method of analyzing introduced by Ching (1979). Furthermore, in the empirical phenomenological approach to the case, the study has been limited to the two types of potential participants including recent inhabitants of the complex and the architect. Therefore, the focus of the study is firstly on the observation of the researcher through providing field proper notes on the case and the established guideline of field study, and secondly and more importantly, the participation of the inhabitants and the architect. It has to be mentioned that this empirical phenomenological method of inquiry has been limited to the instructions given by Creswell (2007; 2009) and Moustakas (1994).

Chapter 2

STATE OF MEANING IN ARCHITECTURE

2.1 The Reaction to the Crisis in the Context of Modernism

In the pole of twentieth-century thought, surprisingly there is a ruling vision on what that modern life looks like. By analyzing the mighty cosmos of modern order, the Max Weber (1930) names this inexorable order, capitalistic, legalistic and bureaucratic as "an iron cage" and he writes that this contradictory order determines;

> *The lives of all the individuals who are born into this mechanism, not only those directly concerned with economic acquisition, with irresistible force. Perhaps it will so determine them until the last ton of fossilized coal is burnt* (p. 123).

In this context, from nineteenth-century, the great leading critics such as Marx and Nietzsche have recognized the ways in which modern technology and modern social structure caused to occur the human being's fate in a particular way. However, they optimistically felt sure that, as Berman (1988) explains;

> *Modern individuals had the capacity both to understand this fate and, once they understood it, to fight it. Hence, even in the midst of a wretched present, they could imagine an open future. Twentieth-century critics of modernity almost entirely lack this empathy with, and faith in, their fellow modern men and women* (p. 27).

To Max Weber (1930), by referring to Goethe, the thinkers in the first half of the twentieth-century are;

> *Specialists without spirit, sensualists without heart; this nullity imagines that it has attained a level of civilization never before achieved* (p. 124).

Thus, as Berman (1988) derives from Weber's comment;

> *Not only is modern society a cage, but all the people in it are shaped by its bars; we are beings without spirit, without heart, without sexual or personal identity- we might almost say without being. Here, just as in futurist and techno-pastoral forms of modernism, modern man as a subject as a living being capable of response, judgment and action in and on the world-has disappeared. Ironically, twentieth-century critics of "the iron cage" adopt the perspective of the cage's keepers: since those inside are devoid of inner freedom or dignity, the cage is not a prison; it merely furnishes a race of nullities with the emptiness they crave and need* (pp. 27-28).

Namely, Octavio Paz (1973) has expressed his sorrow and grief and says that modernity is;

> *Cut off from the past and continually hurtling toward some vague future at such a dizzy pace that it cannot take root that it merely survives from one day to the next: it is unable to return to its beginnings and thus recover its powers of renewal* (pp. 161-162).

In the 1960s, by occurring the reaction to this crisis in the context of modernism that it was hardly dealing with, as Jameson (1985) briefly explains- and afterward, he

calls this new order variously as late capitalism, multinational capitalism, post-industrialization, or the consumer society- and says;

> *The 1960s are in many ways the key transitional period, a period in which the new international order (neocolonialism, the Green Revolution, computerization, and electronic information) is at one and the same time set in place and it swept and shaken by its own internal contradictions and by external resistance* (Jameson, 1985, p. 113).

Following that, in the 1960s, also a reaction has been emerged towards modern architecture, the refined forms of the machine aesthetic, the technocratic pastorals of the Bauhaus, Gropius and Mies van der Rohe, Le Corbusier; and particularly, against the monumental buildings built in the International Style in different manners (Gelernter, 1995, pp. 256-260; Berman, 1988, p. 26). In this regard, Nesbitt (1996) describes this new international order and she says;

> *In the mid-1960s, challenges to Modern Movement ideology and to a debased and trivialized modern architecture accelerated and proliferated to become known as the postmodern critique* (p. 22).

In this condition, by considering Venturi's populism, the initiatives of IAUS-the Institute for Architecture & Urban Studies- and Italian Rational objectivity as three important foundations of the platform of postmodern critique and thought, it continues to generate the theory of the next two decades would be constructed. In the meantime, the widespread notion among the critique was the failure of Modernism because of its own limited vocabulary in order to communicate and get contact with people (Mallgrave & Goodman, 2011, p. 37). As Mallgrave and Goodman (2011) remarks;

> *In several instances we have already used such terms as "syntactic" and "semantics," words that became increasingly bandied about in the late 1960s. And although both relate to the modern linguistic sciences of semiotics and semiology, architectural concern with the meaning of form had been an age-old problem* (p. 37).

Subsequently in recent decades, architects have increasingly realized the significance of meaning and symbolism in architecture. Consequently, 1960s saw a revival of interest in the question of meaning in architecture. For instance, Eero Saarinen (1961) has expressed the most empathy to communication function of architecture and he says;

> *I have come to the conviction that once one embarks on a concept for a building, this concept has to be exaggerated and overstated and repeated in every part of its interior, so that wherever you are, inside or outside, the building sings with the same message* (p. 32).

Also Louis I. Kahn (1961) has concerned about the state of meaning in his buildings and points out;

> *I didn't want anything pretty: I wanted to have a clear statement of a way of life* (p. 11).

Particularly, Romaldo Giurgola (1965) has argued that;

> *It is the peculiar task of architecture to reach meaning: the human habitat is pivoted around meanings, not objects* (p. 111).

By taking the argument one step further, Robert Venturi claims that he has a tendency to 'complex and contradictory' architecture because it actively supports 'richness of meaning over clarity of meaning' (Venturi, 1966, p. 22). In such atmosphere ruling on 1960s, consequently, the application of semiotic theory to the discipline of architecture has been increasingly proliferated, as far, Umberto Eco has considered architecture as a 'semiotic system of signification', and he has argued that *morphemes* or architectural signs relate and transfer-communicate- possible functions by constituting of a distinct system of codes and conventions (Eco, 1972). So, he points out that a single architectural object can carry and hold meaning by itself and for this reason; it is a pertinent semantic unit.

In opposite point of view, it is important to point out that meaning has not been considered to be carried by architectural objects as well. In the same sense, Hershberger (1970) mentions that;

> *The general semanticists have argued that people bring meanings to words, it is held here that it is people (architects, laymen) who bring meanings to buildings. The forms, spaces, colors, etc., of buildings do not contain meaning* (p. 39).

Moreover, Hershberger (1970) continues;

> *In either case the meaning of particular forms and spaces depends upon the interpreter's previous experience with them or similar forms and spaces* (p. 39).

Therefore, meaning has raised itself at the central of postmodern discussion as an important theme which focuses on the definition of the essence of architecture by

regarding the linguistic theory as a significant paradigm for examining widespread postmodern concerns (Nesbitt, 1996, pp. 32-46). At the beginning of this chapter, it is worth to be clarified that the intention is not to open the discussion on the theory of architecture as meaning, as Bruno Zevi has actively aimed to persuade other to consider 'architecture as space' (Zevi, 1957). Therefore, throughout the discussions in this chapter, indeed, architecture is always recognized by its own primary missions-providing a shelter, protection and accommodation for human being's activities-, rather than its provisional-meaning and communication. As Hershberger (1970) argues;

> *The communication function of architecture is necessary, however, to guide people into using buildings as intended and to enrich the experience of so doing. Meaning is, therefore, a necessary part of what makes a building architecture, but it is not sufficient. It is important that a building communicates its ability to shelter, protect, and accommodate; but it is equally or more important that it does, in fact, shelter, protect, and accommodate* (p. 39).

2.2 Various Theories of Meaning from Philosophical Points of View

In our time, the concept of meaning by its all varied theoretical stands has made the important contributions in philosophical discussions. It has been initiated to be as an interesting subject of study in various disciplines and subsequently, has been considered as a simple response to an object on one extreme to a philosophy of life on the other (Langer, 1942, pp. 53-57). Russell Eliot Dale writes in his dissertation that;

> *The gross differences between different causal theories are always about what sort of mental state gets caused by a public-language expression and*

> *what relation the adduced mental-state stands into the meaning of the public-language expression* (Dale, 1996, p. 76).

In this manner, they have shown in their influencing book on later development, *The Meaning of Meaning*, there is a confusion of thinkers over the common use of this term by assuming that their use of the term is clear and understood. However Odgen and Richards show this is far from the case by distinguishing sixteen various meanings of meaning (Ogden & Richards, 1923, p. 13). Therefore, the concept meaning is multivalent, has many meanings by itself; and subsequently, first of all, in this chapter has been tried to clarify which theories have to be discussed and later on to be used.

In this part, the variety of theories on the concept of meaning has been explored by referring to the classification done by Hershberger (1970, pp. 39-41).

2.2.1 Mentalistic Theories

According to Hershberger (1970);

> *The commonsense notion used most often by architects and philosophers alike has been that meaning is a 'mental' event that it deals primarily with 'images,' 'ideas,' 'concepts,' 'thoughts,' 'feelings'* (p. 39).

The earliest hypothesis is that human being has a 'mind' which is separated in its own activities in human being's 'body' in some sense. By giving a broad treatment to the assumption of meaning, there is always a corresponding treatment of signs, symbols, context, and other external phenomena which refer to the internal mental activity, as Odgen and Richards have done with their study (Ogden & Richards, 1923).

2.2.2 Behavioral Theories

Lack of satisfaction in between a number of behavioral scientists with 'unobservable' features of meaning, has been concluded to a total rejection of the notion of meaning, or to a development of a compatible theory with observation, on the concept of meaning. In this concept, the most observable and direct approach has been developed by those who do not reject completely the notion of meaning. Namely, according to Hershberger (1970), *'Stimulus-Response'* psychology has performed the main role in which as he says;

> *Meaning is considered to be a 'response' to a stimulus learned according to classical conditioning and maintained by reinforcement* (p. 40).

Another approach to the notion of meaning has considered meaning as a construct serving a hypothesis- hypothetical construct-, or intervening variable which its existence has not been deliberated as central to the discussions of behavioral science (Hershberger, 1970, p. 40).

2.2.3 Dispositional Theories

In this approach, the meaning of a stimulus has been considered as 'disposition to respond'. While the nature of meaning is not observable, it can be inferred from the response itself. According to Hershberger (1970);

> *In this case, the study of meaning is still essentially behavioral in that it is the observable stimuli and responses which are studied. No concentrated effort is made to determine just what makes up a 'disposition.'* (p. 40).

A 'disposition to respond' has been described by Chalres Morris (1955) in a straightforward definition, and he says that a 'disposition to respond' is;

> *A state of organism at a given time which is such that under certain additional conditions the response in question takes place* (p. 8).

2.2.4 Mediational Theories

Similarly, Mediational theories use the dispositional term in that what is eventually investigated is the observed 'stimuli and responses.' However, yet, the process of mediation is not observable, but it is composed of scaled-down forms of previously observed responses which, when they are evoked, act as stimuli for serving other over responses. As Hershberger (1970) points out, the main difference between Mediational and dispositional theories is;

> *An attempt to describe the nature of the unobserved mediation process* (p. 41).

The notable mediational theory has been advanced the approach in which, without new postulation, the transformation of all conceptual construct of single-stage *'Stimulus-Response'* psychology into a two-stage form has been developed (Osgood, Suci, & Tannenbaum, 1967, pp. 2-10). In such an approach to the concept of meaning, meaning is assumed intrinsically as an internalized response to a stimulus, which works 'as a stimulus for an overt respond.'

2.2.5 Linguistic Theories

In general, linguists have a quite different approach to the concept of meaning as philosophers, architects and psychologists have. By citing Bloomfield (1933, pp. 139-157), Hershberger (1970) explains that;

> *Some linguists…have indicated that the linguist has neither the ability nor the need to handle meaning, saying that it is only necessary to detect if it is the same or different* (p. 41).

On the other hand, other linguists have considered statistical approach towards the concept of meaning, by asserting to maintenance of that the meaning of a '*morpheme*' is:

> *The set of conditional probabilities of its occurrence in context with all other morphemes* (Osgood, Suci, & Tannenbaum, 1967, p. 3).

Still others have indicated meaning as linguistic regulation conducting to the application of sign (Antal, 1963). Moreover, according to De Saussure (1916);

> *Language is a system of independent terms in which the value of each term results solely from the simultaneous presence of the others* (p. 114).

Besides, the linguists' definition of meaning generally is to serve to clarify the relationship of signs to other signs in a message complex (Hershberger, 1970, p. 41).

To read this message complex, Semiology has been emerged to approach language scientifically, and it entirely deals with the realization and analysis of signs and symbols in all forms and aspects. These aspects include spoken or written language-named syntactic- or non-linguistic forms such as physiologic and biologic signs, semantic signs, value systems, and all forms of motions, moods, conscious or unconscious (Parsaee, Parva, & Karimi, 2015, p. 374). In this sense, Pierce and Saussure's theories are the most important ones. Pierce's standpoints have affected cultural studies, anthropology and moreover, in history and review of art (Elkins, 2003). On the other hand, Saussure has integrated semiology into anthropology discussions (Fakouhi, 2006).

2.3 Architecture: A Communication Medium

Markus (1993) says;

> *A building as a narrative, from the moment it is conceived, through its design, production, use, continuous reconstruction in response to changing use, until its final demolition, the building is a developing story, traces of which are always present* (Markus, 1993, p. 5).

The issues which have been considered in postmodern cultural theory, can be clustered around some general themes such as the issue of disciplinary tradition-or history, ethical engagement versus autonomous practice-or social responsibility, the body and finally the meaning (Nesbitt, 1996, p. 40). In this sense, there is increasing attentiveness in the study of meaning in a large group of disciplines such as architecture, by raising the question: in what manners and on what criterions do people respond to the environment?

In this regard, this is accurately a particular part of fundamental questions of man-environment studies, that which refers to the nature of the mechanisms that link people and environment (Rapoport, 1977, pp. 1-4). Rapoport (1990) points out that;

> *It appears that people react to environments in terms of the meanings the environment have for them* (p. 13).

Accordingly, Nesbitt (1996) by referring to Broadbent (1977) points out that;

> *Buildings carry meaning and that architects should understand the processes by which such meaning is ascribed. Creating meaning intentionally, he claims, prevents accidental readings* (p. 122).

In wider scope of this discussion, by considering architecture as a sign system, Dorfles (1959) states that;

> *The problems of architecture, if considered in the same way as the other arts, as a 'language', are the basis for a whole new current of thought, which allows it to be treated in terms of information and communication theory* (p. 48).

In such a study, there are different point of views concerning the meaning of architectural works and effective parameters in meaning-creation:

- Some stress on social and historical context;
- Some stress on audience;
- Some stress on context and work (Khosrojerdy & Mahmoudi, 2014).

Besides, by restructuring of thought in linguistic paradigms, there is a dominant transition in postmodern cultural criticism. Therefore, the linguistic theory takes an important role as a paradigm for examining methodically a widespread postmodern concern: the process of bringing meaning into existence and its reception. In the discipline of architecture, this paradigm had a major impact on the notion in the 1960s in parallel with a resumption of concern in meaning and symbolism. In this manner, architects have started to figure out how meaning is carried in language, and subsequently, they have tried to understand how to apply this knowledge through linguistic analogy to the discipline of architecture. As Nesbitt (1996) says;

> *They questioned to what extent architecture is conventional, like language, and whether people outside architecture understand how its conventions construct meaning* (p. 32).

Meanwhile, they have investigated how semiotics and, in particular, structuralism consider how language communicates, and how it is figured out as a closed system. In the concept of communication in language derived from the discussion above, Anderson (1959) mentions that;

> *Communication is dynamic, constantly changing and shifting in response to the total situation* (Anderson, 1959).

In this concept, Eco justifies that architecture is a 'particular challenge to semiotics' and he argues that if;

> *Semiotics, beyond being the science of recognized systems of signs, is really to be a science studying all cultural phenomena as if they were all systems of signs – on the hypothesis that all cultural phenomena are, in reality, systems of signs, or that culture can be understood as communication – then one of the fields in which it will undoubtedly find itself a challenge is that of architecture* (Eco, 1997, pp. 173-195).

By referring to these compliments, architecture defines itself as society's reaction to converting circumstances such like climate, economic condition, outer and inner relations, current belief and knowledge system. As Alan Colquhoun (1989) points out;

> *Architecture derives its meaning from the circumstances of its creation; and this implies that what is external to architecture is of vital importance* (p. 254).

Intrinsically, architecture is a configuration of communication and therefore, Architecture can be recognized as a language (Forty, 2004) or as grammatical system

which applies symbolic communications to erect built actuality of its users and observers (Eco, 1986; Cameron & Markus, 2002). Consequently, architecture and built environment are located as a sphere of communication with regard to this characteristic, in which, as Carey (2009) defines;

> *Communication is a symbolic process whereby reality is produced, maintained, repaired, and transformed* (p. 19).

Furthermore, since architecture collaborates to make the social reality in order to selectively generate meanings- however it is not objective but interpretive-, it belongs to the media domain (Mcquail, 1983). In this regard, Gawlikowska (2013) argues that, to understand the relations in between architecture and communication;

> *The social semantic and semiotic models of communication shall be adapted to the context of architecture and urban design* (p. 51).

On the other hand, According to Eco, proved that the linkage in between architecture and semiotics is easily perceivable because;

> *Most architectural objects do not communicate, but function* (Eco, 1997, p. 182).

Thus, since one of the fundamental questions that semiotics has to challenge is whether it is possible to interpret functions as 'having to do something with communication'; the understanding of architecture depends extremely on the semiotic point of view. Accordingly, as Eco remarks, only through semiotics it is possible;

> *To describe other types of functionality, which are as essential but which a straight functionalist interpretation keeps one from perceiving* (Eco, 1997, pp. 190-195).

In this concept, in the challenge to 'modern functionalism as the determinant of form' -versus 'inescapable semantic dimension of architecture'-, Agrest and Gandelsonas (1973) and also Broadbent (1977) started both to investigate if a 'social contract' is objectively existing in architectural discipline. Therefore, from a linguistic standpoint, they argue that architecture or architectural object has no essential meaning by itself, but they can bring it up through the cultural convention.

2.3.1 Symbols & Communication in Philosophical Ground

As it has been discussed, signs and symbols are the tools of communication in linguistic. It is aimed to transmit a message or information by application of a more substantial and effectively conveying means through concept representation. The function of the means relies on the system of symbols which they are embedded in. in this sense, Gawlikowska (2013) remarks that symbols;

> *…can be understood as intended by the senders' discursive embodiments of message, or in broad non-discursive sense as elements of human thinking process and conscious reality. In many cases, the symbol has no literal meaning, but refers to a system of meanings* (p. 51).

Norberg-Schulz (1968) remarks that, the 'sign' is;

> *…of fundamental importance because it overlooks minor differences, and through its stable ' meaning' makes that communication possible which is a prerequisite of any differentiated interaction* (p. 38).

In a wide scope, the symbols can be defined as images which help us to distinguish, understand, remember, consider or recognize (Langer, 1942, p. 93). In fact, Symbols are the consequence of symbolic transformations, emerged by abstract synthesis, by which it is aimed to give an order to the chaos of experience. In this concept, Langer (1942) indicates that;

> *The basic need, which certainly is obvious in man, is the need of 'symbolization.' The symbol-making function is one of man's primary activities* (p. 41).

As Gawlikowska (2013) argues, symbols are able to function as a communicative construct when both parties, discursive and non-discursive, portion a joint system of symbols. She mentions that;

> *This system contains a set of formal categories that allow grouping of messages into classes, clarification of inter-relationships, and rules allowing construction of complex messages* (p. 51).

To interpret the meaning, each medium as well as architecture, has it is own specialized codes. With regard to this face, in general, there are two basic trends to interpret meaning in architecture based on the various theories of meaning in the philosophical ground which are deliberately discussed below.

2.3.2 Meaning as a Function of Language

Only within the discourse category, symbols have been recognized as comprising of two relevant elements named, signifier and the signified. In this explanation, the signifier maintains an arbitrary relationship -rather than natural- to what is symbolized, and a symbol has no inherent meaning (De Saussure, 1916, pp. 67-69). In this sense, as Miller (Miller, 1966) argues cited in Gawlikowska (2013);

> *Communication occurs in those situations in which a source transmits a message to a receiver with conscious intent to affect the latter's behavior* (p. 51).

2.3.3 Meaning as a Function of Consciousness, Perception and Emotions

According to Langer (1942) cited in Gawlikowska (2013);

> *Non-discursive symbolism is based on an assumption, that there is an area outside the thought, including other types of meaning, and that the art is symbolic by nature and its meaning can be analyzed* (p. 51).

In this wide implication, therefore, all human being's behavior has to mean. Consequently, there is no possibility to not communicate (Watzlawick, Beavin, & Jackson, 1967, p. 74). Subsequently, for instance, according to Gawlikowska (2013);

> *Forms perceived by the senses, are particularly suitable for expression of ideas, which cannot be expressed using the spoken language. The concepts of space, produced on the basis of information provided by the senses of perception and touch, cannot be understood completely in a discursive manner* (p. 51).

As a final point, Gawlikowska (2013) argues that;

> *There is no limit to the development of symbolic meanings, since the metaphor allows expression of new abstract forms. The symbols that embody the basic ideas of life and death, man and the world, can be sacred to the community, because many of its members do not distinguish between allegory and the subject. Joy is often being focused on these symbolic artefacts, because they communicate an idea and a value* (p. 51).

In this concept, for instance, the reaction of tourists can clarify the discussion while they are in the vicinity of symbolic architectural objects such as the Statue of Liberty in New York, the Eiffel Tower in Paris, Azadi Tower in Tehran, or Taj Mahal in Agra (Fig.2).

Figure 2 : Symbolic Architectural Objects, from left: a. The Statue of Liberty in New York, b. Azadi Tower in Tehran, c. Taj Mahal in Agra (Triebert, 2011).

2.3.4 Verbal and Non-Verbal Communication in Architecture

Considering architecture as a communicative construct depends on the given definition of communication. The definition given by De Saussure intends to allocate all signs and symbols to a specified signified (De Saussure, 1916) promises excessive formal ascription for the greater number of meanings incorporated by space (Barthes, 1967, pp. 158-164). In this regard, some architects such as Bernard Tschumi (1996, pp. 27-52) and Peter Eisenman (1971, pp. 36-65) have recognized an existence of a separation in between space perceived through senses and investigated intellectually. This separation results in the pattern of classification which Gawlikowska translates it into verbal and non-verbal communication (Gawlikowska, 2013, p. 51). In architectural discipline, As Gawlikowska (2013) introduces, this categorization of meanings can be assumed as;

- Formal & Discursive meaning;
- Non-formal & Non-discursive meaning.

Each two categories have been deliberately investigated below.

2.3.4.1 Formal & Discursive Meaning

Meanings in the communicative construct of architecture- meanings as a function of language- are comprehensible by a limited number of professionals with knowledge on architectonic discourse. Also, they are able to comprehend meanings which are understandable by a large cultural group with regard to their educational background. In this sense, according to Lawson (2001), scholars are able to notice the grammar of the formal visual language and to interpret the entire conception of the design, whilst the diversity of styles, patterns of architecture and their principles, has been accustomed by a large group of the community. Accordingly, the majority of public can estimate the forms and realize the rules of space from time to time (pp. 69-99).

2.3.4.2 Non-formal & Non-discursive Meaning

In this case, meanings are largely comprehensible by a larger group of audiences with regard to their emotions, the sensory experience within the spatial realm, and on natural perception patterns. According to Gawlikowska (2013);

> *Many experiences are not analytical and can be rather described as a part of the unconscious process, for example perception of verticality or horizontality* (p. 52).

In this sense, Wittgenstein (1942) remarks that, cited in Albertsen (2000);

> *Architecture is a gesture. No every purposive movement of the human body is a gesture. And no more is every building designed for a purpose architecture…Remember the impression one gets from good architecture, that it expresses a thought. It makes one want to respond with a gesture* (p. 67).

According to Wittgenstein, Lawson (2001) declares that a building which does not have building expressiveness or not been created purposefully in order to have a meaning, cannot be qualified as an art, but as a craft (p. 128). Accordingly, Gawlikowska (2013) argues that;

> *The gesture though does not have to be intentional, enlarging the area which should be qualified by architecture – described by non-verbal communication phenomenon, which is particularly interesting, once not intended* (p. 52).

Thus, non-verbal communication can be assumed as a wordless. For instance, the voice quality, emotion, style, rhythm, intonation and stress may consider as non-verbal elements of speech. Likewise, also in literary forms, written texts contain non-verbal components such as handwriting style, words arrangement. With regard to this, Gawlikowska (2013) states that;

> *All communication is largely non-verbal, and depending on which study there are different assessments of the role of non-verbal communication* (p. 52).

In this concept, according to two corporative researches done on significance of facial and vocal expressions versus verbal components, Mehrabian (1972) points out that, in a communication, facial expressions -in the other word, body language- encompasses 55% of a first impression; 38% is related to vocal expressions and 7% received from actual words (p. 182). In this context, Gawlikowska (2013) argues that;

> *Communication of architecture to large audiences, which do not follow the formal discourse, falls largely into a non-verbal category, allowing architecture to maintain a lot of communication capacity* (p. 52).

And accordingly, she states that,

> *Since non-verbal cues are important when communicating feelings and attitudes, these are the two most important areas, which architecture can utilize for communication, not basing on formal education* (p. 52).

Together with this, spatial arrangement can be comparable with facial expression, and occurs itself into the cluster, however perceiving the intended meaning of whole cluster is more valid, in comparison with interpreting individual elements. Subsequently, other similarities in between two disciplines are mentioned below.

- Message of cultural dependency in both disciplines;
- Meaning ambiguity, can be caused from indication of more than one thing by individual gestures/built elements;
- Impact on behavior, in which, attitude can be influenced by body position and similarly social behavior pattern can be influenced by the characteristics of building communication;
- Effect on the judgment of message recipient (Gawlikowska, 2013, p. 52).

In general, the way in which architecture communicates by itself, it mostly bears a resemblance to the human non-verbal communication in a certain extent. For instance, as Gawlikowska (2013) exemplifies;

> *Body position, which is characterized by taking space (e.g. spread limbs, straight head and back, large personal distance), communicates dominance and control* (p. 52).

Equally, the architectural structures which are expressed by some distinctive features such as wide spans, spread constructions, and moreover, vertical compositions, emerge automatically association of control and dominance over space (Fig.3).

Figure 3 : (*Left*): Spatial Symbol of Political Power- Spread Construction of Parliament Palace of Romania, 1997, Bucharest, Romania (Arina, 2014). (*Right*): Spatial Symbol of Political Power- Large Distance Structure of Parliament Building of Islamic Republic of Iran, 1995, Tehran, Iran (Parand, 2014).

Furthermore, fundamental messages transformed by facial expressions-body language-, consisting of closed or open positions are also resembling with openness and transparency as way of communication in architectural structures as opposed to, the structures which are closed and controlled (Fig.4). By referring to Lawson (2001), the distance to be passed in order to approach a room or a building is another equivalent criteria as looks like to the studies of patients with certain psychological

disorder and of influential violent criminals, by contrast, whose personal distances are demonstrated to be larger than of criminals, who committed to do no crime (p. 123). In the same way, throughout the history, the office spaces have been designed to be difficult to approach together with a large degree of control (Markus, 1993).

Figure 4 : (*Left*): Communication of openness through architecture: transparency of the studio units and intermediate spaces communicates openness. Faculty of Architecture, Middle East Technical University, Ankara, Turkey (SALTOnline, 2014). (*Right*): Communication of openness through architecture: transparency of the court units communicates openness. Bordeaux Law Courts, Designed by Richard Rogers, 1993-1999, Bordeaux, France (Rinaldi, 2015).

In fact, social distances as important social communication aspects, demonstration of the level of relationship in between human beings rule as a main reason for choosing the structure and composition of some architectural and urban cases. As an example, the monumental squares are mostly used in despotic political systems because of considering the underlying concept of distance without having any socializing impact.

By giving an example of Marquette Plaza Building in Minneapolis (Fig.5), Gawlikowska (2013) states that;

> *Facial gestures such as smiling are universal human communicative signals that can be related to corresponding signals in architecture* (p. 53).

Figure 5 : Marquette Plaza Building, with Composition Features Corresponding to Smile. Designed by Gunnar Birkerts, 1973, Minneapolis, USA (HABS MINN).

Indeed, the discussion about the parallels between facial expression or body language and communicative features of architectural space can be brought further to the diversity of gestures, mimicking and physical limitations in the realm of zoo-semiotics. Accordingly the similarities in between the animals' gaze cue and the geometric gaze in architecture aimed to use the lines directing the view as a compositional elements, the animals' warning signals domain and architectural warning signals in order to provide a psychological barrier, can be in core of further discussions. Moreover, enlarging the looks as a habit in between some animals can be comparable with building frontal facades, while it has been designed to look much larger and more elaborated than the main building standing behind frontal facades (Fig.6).

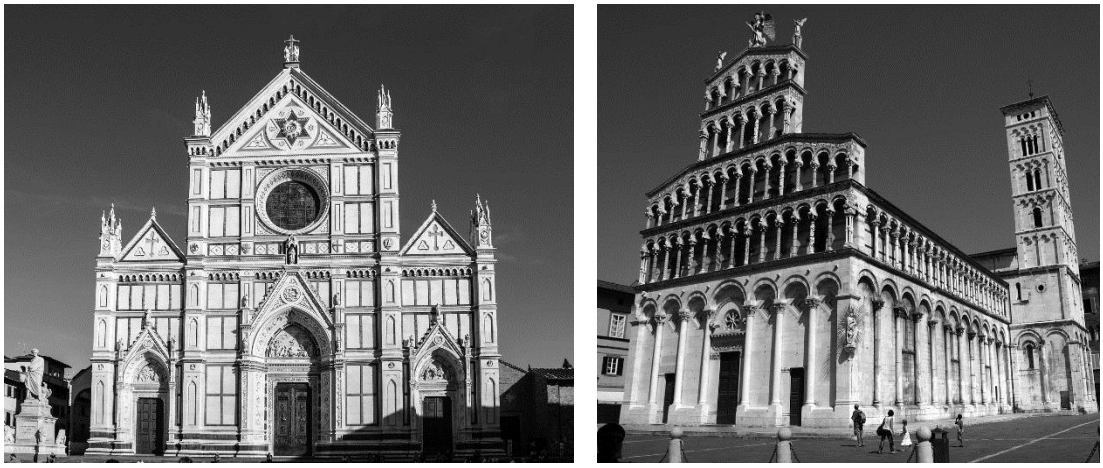


Figure 6 : (*Left*): Frontal Facades, Basilica of Santa Croce, I5th Century, Florence, Italy (Ringo, 2013). (*Right*): Frontal Facades, Basilica of San Michele in Foro, I5th Century, Lucca, Italy (Volpi, 2015).

2.3.5 Perception through Spatial Understanding

In architectural discipline, the discussions on the concepts of space and place are the most controversial. In particular, the modern architecture has dominantly concentrated on these two concepts in comparison to the past, in order to present a new image of it. Furthermore, the perception of these two underlying concepts and their fundamental characteristics would have been utilizable in the process of architectural design aimed to generate architectural products, as Heidegger (1971) emphasizes on this discussion that it is the mission of architecture to create a space or a place for dwelling and living (pp. 141-160). According to Forty (2004);

> *Heidegger's understanding of space was that space is neither, as Kant has proposed, a property of mind by means of which the world is perceived, nor does it exist previous to one's being in the world; in short, there is no space independently of one's being in it* (Forty, 2004).

In this regard, Heidegger (1971) says;

> *Space is not something that faces man. It is neither an external object nor an inner experience. It is not that there are men, and over and above them, 'space'* (p. 154).

In fact, space constructs the core of architecture and architecture, therefore, acquires its characteristics based on it (Zevi, 1957). In order to design, the architect must firstly understand and ponder architectural space through converting the characteristics of its essence in intelligible language and figuring out the messages revealed by its specified physical form (Dursun, 2009). With regard to this statement, an architect can be aware of the surrounding spaces.

In the other words, design can be assumed as a process of discovery that assists in which, the understanding of space and spatial experiences of architect enhanced and subsequently, the architect is able to create the architectural space. The process of recording, collecting, describing and even reproducing experiences, at that moment, constitute the core of architect's spatial knowledge. Moreover, they act as the stimulant of the design process by encouraging architects to moving forward to the decisions on the principles and concepts of the desired space. If we prove the process of architectural design as a mental process with high degree of complexity which has capacity of manipulating information with its diversity (Lawson, 2005). In this regard, distinguishably, perception can propound itself as a significant impact on capability of space in order to communicate. In this concept, some spatial characteristics can be perceived stronger than the other characteristics (Rose, 1995, pp. 28-51).

In the analysis of the possibilities of a semiotic reading of architecture done by Dorfles, since it is limited to many previous and subjective aspects of perception such as the feeling of deepness and other experiential indicators, he affirms the restrictions such a reading could have. In order to avoid the relativism in a process of reading architecture, Dorfles (1959) proposes to differentiate between two types of semiotic analysis and he states;

> *If we want to systematize architectural analysis from a semiological standpoint, we shall have to say that there is the possibility of a twofold semiological distinction: one kind of semiographic analysis based on the elements of notation and of symbolic transcription of its language (in a certain way similar to certain primitive ideographic writings) and another kind linked to the work itself and to its constitutive elements (spaces, rhythms, volumes)* (p. 48).

To perceive the architectural space with its own complexity, it has to be considered not just as a simple volume that we are surrounded by. By having this conception, first of all, architectural space has to be discovered through its physical form. Physical form of the architectural space can be decoded and explained by identifying its concrete characteristics such as length, width, scale, geometry and also texture, color, light, etc. (Dursun, 2009). The impact of physical characteristic of space on perception can be clearly exemplified by the application of red color in the space intended to send warning signal, by regarding to its visibility rather than the green color which indicates the background. In this case, a greater amount of anxiety and tension have been reported in between the subjects of such a space with red color leading to enhanced performance (Kwallek & Lewis, 1990, pp. 275-278).

Figure 7 : (*Left*): Urban setting example of perception based on formal verticality, Azadi Tower, Designed by Hossein Amanat, 1971, Tehran, Iran (Bakhtiar, 2004). (*Right*): Architectural design example of perceived focal point and attention center basing on spatial symmetry, Reichstag, Designed by Norman Foster, 1999, Berlin, Germany (Foster and Partners).

Likewise, certain compositional elements in space can be accepted by emphasizing the importance of formal characteristic of space. Particularly, perceiving the importance of formal verticality or horizontality, or considering symmetrical composition as communicating focal points can be applied (Lawson, 2001, p. 62) (Fig.7).

To demonstrate more, repetition of physical elements of the space make them unrecognizable and thereupon, it terminates itself to the disappearance of spatial elements from image perception. Consequently, the short-term memory which is able to support up to seven articles, starts to introduce a limitation on the usable architectural elements in foreground (Lawson, 2001, pp. 63-64) (Fig.8). With regard to this description, according to Gawlikowska (2013);

> *This repetition memorization phenomenon takes into account a still observer, but the memorization patterns are largely dependent also on speed of perception* (p. 55).

Figure 8 : (*Left*): Perception of architectural elements: short-term memory limitation leading to limitation of the front portico column repetition to six. Maison Carrée, Roman temple, C. 4-7 A.D., Nimes, France (Danichou, 2011). (*Right*): Perception of architectural elements: short-term memory limitation leading to limitation of the front portico column repetition to six. Reichstag building, 19th Century, Berlin, Germany (Waugsberg, 2009).

Furthermore, space also has other abstract and complex characteristics except its concrete characteristics of the physical form of space. abstract and complex characteristics of space consist of codes, rules and abstract parts shaping meaningful things in space (Dursun, 2012-1, p. 105). Strikingly different to discursive language, presentation of architectural forms take place concurrently to a great extent. Accordingly, they introduce a synthesized and condensed meaning, which is able to be much abstract. This concentrated abstract meaning will be memorized much better than the verbal communication. Due to the attributes of human memory loop, this privilege of spatial communication is taken place, in which the process of storing in memory lasts about two seconds long. For instance, the correlation in between the duration needed to pronounce the digits in different languages and the process of memorization of their sequence. The memorization of the digits has been more successfully done while, in the language, they represent themselves with shorter names. Thus, it affirms the significance of synthesized communication (Gladwell,

1976, p. 228). As a result, it can be stated that time-scale transfromation depending on the mobility causing increased speed, as a factor, impact vastly the communicative construct of architecture. In comparison from the experience of pedestrian observers to the view of quickly moving transportation means, by reducing the time period which is spent in order to observe the individual buildings, different levels of observed details of space will be occurred (Stein, 1977). According to Gawlikowska (2013);

> *This occurrence has caused detail compression, leading to limited communication ability of architecture and space devaluation* (p. 55).

Moreover, since the detection of fine detail is allowed by existing a higher level of precision in the central part of the retina, we could take other characteristics of human's spatial perception into consideration for designing of space including the field of vision (Lawson, 2001, p. 83). Significantly, it is notable that, the spatial perception in actual time generates fragmentary audio-visual material and it depends on the totality of the spatial experiences of observer (Porter, 1997, p. 114) (Forty, 2004), or subconsciously utilization of successive montage in the perception of historic buildings (Eisenstein, 1989, pp. 110-131). To examplify, all the examples which are given above, represent the significance of bodily experience in perception of architecture and also they are reconciled to the explained group of non-formal and non-discoursive communication. According to Gawlikowska (2013), They also permit the formal transition of meaning, but it needs also an supplementary element of understanding (Fig.9). She points out that;

> *The symbol is customary, it's meaning and understanding is often limited to a particular culture or social group, symbolic relation is a relation based on*

> *conventional relationship between concepts, and is usually limited to a particular culture* (Gawlikowska, p. 55).

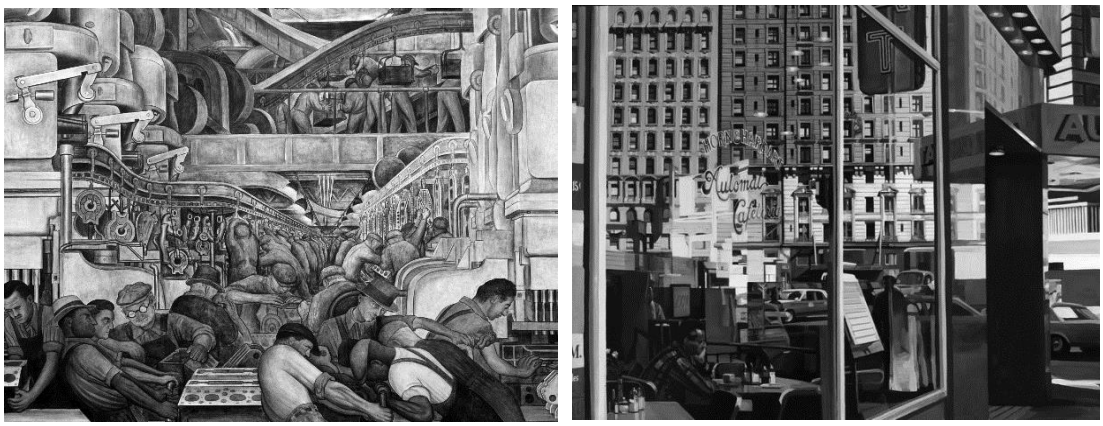


Figure 9 : (*Left*): Fascinated People with Technology- a painting metaphor. Detroit Industry, North Wall, 1932–33 by Diego Rivera. Detroit Institute of Arts, Michigan, USA (DIA, 2016). (*Right*): The notion of impossibility of understanding the modern city of New York - a painting metaphor. Horn and Hardart Automat, 1967 by Richard Estes. Museum of Arts and Design, New York, USA (MAD, 2015).

Whereas, the symbols express different measure of meaning, therefore, the one who adresses to the distinct symbols, has to choose and synthesize them in way that they are limited in the scope of possible meanings. According to Gawlikowska (2013);

> *This can be achieved by using metalingual contextual codes, which in the area of architecture could be chosen material, nature of the medium, architectural style, etc* (p. 55).

In addition, the process of transforming literal interpretation into metaphorical level or allegory, has to be assisted by supplying the references and clues. With regard to this, in order to understand symbolic communication effectively, it needs accomplished translation done by message receiver. This is possible, according to Gawlikowska (2013);

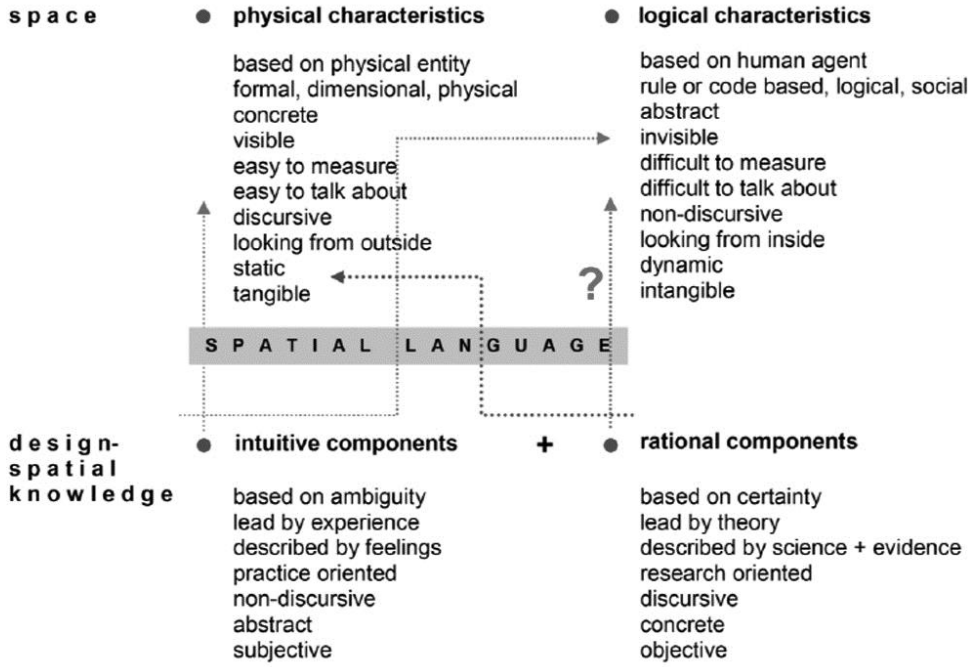
> *If the receiver knows the code (which, apart from symbols can include the grammar and the context)* (p. 55).

Regarding to second type of spatial characteristics mentioned above, Dursun (2012-1) says that;

> *By exploring man-space relationship, the main argument is to discover how social relations are organized in space and how a particular space affects human behavior. In this case, the structure of spatial language becomes more complicated and a depiction based on mainly invisible, non-discursive, un-measurable characteristics and on a related vocabulary becomes increasingly difficult* (pp. 105-106).

Hereupon, The language of space has to consist of a lexicon that being able to illustrate parallelly both physical and logical characteristics of space. In this regard, architectural knowledge has to contain equipment that makes reader able to decode both physical and logical characteristics of space, together with the intuitive and rational components of space (Dursun, 2012-1, p. 106)(Table.1).

Table 1 : Language of Space (Dursun, 2012-1, p. 106).



As explained broadly, the discussion on understanding language of architectural space brings forth the frontier for determining architecture as a communicative construct. On one hand, Architecture bears formal-discursive aspects of semantic codes in a certain level, which is understandable by a narrow group of audiences, who have knowledge of architectural discourse. In fact, these spatial characteristics place architecture in domain of long-established understandable communication. In this concept, according to Anderson (1959), also cited in Schement and Ruben (1993) as a definition of communication, architecture as a communication tool can be defined as;

> *The process by which we understand others and in turn endeavor to be understood by them* (p. 24).

On the other hand, there are levels of non-discursive architectural communication that are perceivable by majority of receivers. While they transmit their own

meanings, they can be clustered and named as semiotic structure of architecture based on much less information requirement of its formal-discursive background.

2.3.6 Architecture as a System of Communication

Architecture by its particular characteristics as a commutative construct mentioned above, drives a meaning (Norberg-Schulz, 1975). Meaning can be treated as a process of providing the linkages between objects, events and beings through exploring the signs (Dorfles, 1959, p. 39). In this concept, since architecture is created to serve its primary missions- functions, therefore, architectural communication needs utilization of symbolic conversion (Eco, 1997, p. 173). Consequently, according to this capability, this communicative construct is able to generate analogies and metaphors, which permit transmission of complex meanings. Despite, architecture is associated with the need to satisfy its own utilitarian function, it is allowed to communicate accordingly. In this manner, as Gawlikowska (2013) acknowledges;

> *Architecture uses visual symbols and elements (rhythm, material properties, lines, shapes, colors, proportions, etc.), which provide an array of communicative elements, possible to abstract and combine. They are, like language, able to articulate* (p. 56).

As discussed above, different levels of meaning which are carried by architecture can be clustered into two categories of formal/discursive and non-formal/non-discursive meanings. In this sense, different types of communication can be recognized to be assigned to architectural and urban forms, as discussed below.

2.3.6.1 Formal/Discursive Communicative Methods as part of Semantics

The formal/discursive communication can be assumed as a part of semantics to design the space. It investigates the denotation emerged by architectural discourse. Depending on internal communicative codes, the formal/discursive messages will be transformed by architecture. At the large extent, they will be restricted to transmit the message to the architects who are familiar with the contextual and historical components and sources carrying by architectural forms. The typological metamorphosis by Aldo Rossi (Haddad, 2014, p. 36), and deconstructive design approach of Peter Eisenmann (Haddad, 2014, p. 71), both, have been directed to the problems of architectural symbolic approach, recognized at first by the narrow group of audiences (Fig.10 & Fig.11). But according to Gawlikowska (2013);

> *With time and formal repetitions in other design objects, they have entered the realm of social communication and cultural canons* (pp. 56-57).

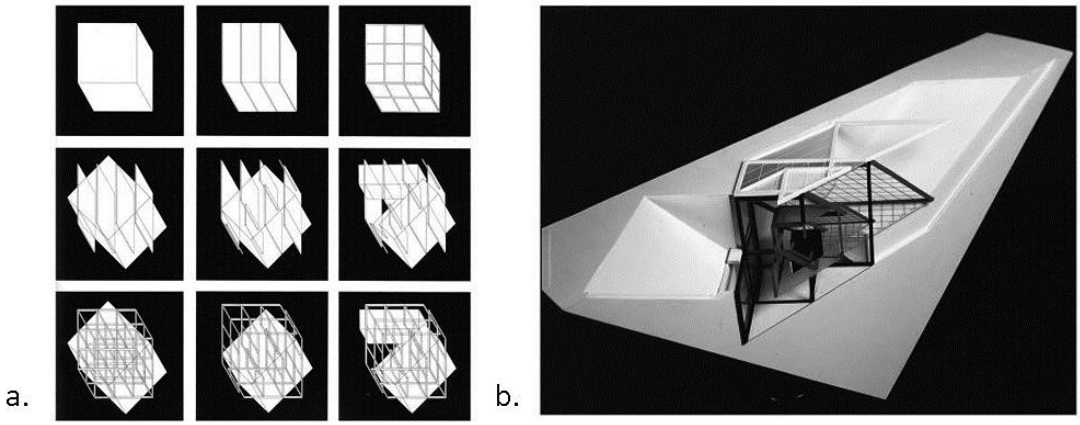


Figure 10 : Peter Eisenman's Deconstructive Approach: the dialectic of presence and absence (Haddad, 2014, p. 71). (*a*). House number. III (1969-71), (*b*). House El-Even Odd (1980).

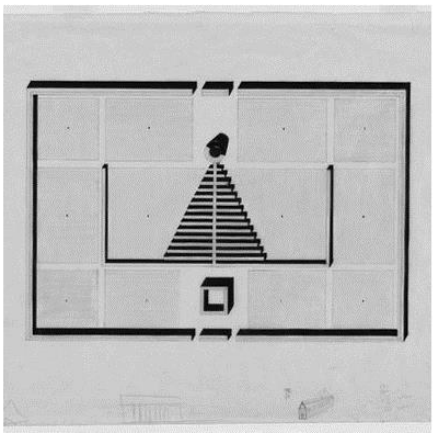
a.  b. 

Figure 11 : Rossi's Representation of Typologies: a. Expression of metaphysical quality emerged from typological investigations on Costa and Jewish cemeteries of the 19th century, b. San Cataldo Cemetery in Modena, Italy (1971) by Aldo Rossi (Ghinitoiu, 2010).

In this manner, such means as, dark and bright, width and narrow, closed and open, connected and separated, dominating and balanced, vertical and horizontal, etc. are used to express a formal articulation. As Langer (1942) describes, semantic sense of architectural interpretation is passed across;

> *The play of lines, masses, colors, textures in plastic arts, or the play of images, the tension and release of ideas, speed and arrest* (p. 257).

Namely, as Gawlikowska (2013) states;

> *Rhythm is a prototype of architectural structures, as a symbolic essence of life. The basic architecture of the compounds in tension and relaxation, and these relationships result in forms of architecture* (p. 57).

In this sense, the formal articulation of architecture has to be interpreted within a distinct urban context, with its all formative characteristics such as openings, center, reference lines, and direction of vision. Moreover, it has to be connected to stylistic and functional characteristics of the architectural object. Subsequently, all these communication tools will be comprehended, metaphorically and symbolically, and

afterwards they will be capable to transfer meanings. As an example of symbolic organization of space, the intention of Christians for expressing the context of their faith in their buildings by establishing a fundamental spatial relationship that guided the form of the church throughout most of the architectural styles can be mentioned. In this case, the concepts of 'path,' designed towards the altar, represents the road inward to one's soul, and furthermore, it symbolizes the Christ and the goal of Christianity; and 'center,' the point at which the meaning of life is revealed, represents the importance of symbolic center, space concentration and the specific spatial organization. In fact, a social indication can be drawn from appropriately closing a space. As mentioned in the case of symbolic spatial organization of Christian church, those implications can be a feeling of group cohesion, and concentration on the general goal (Norberg-Schulz, 1975, p. 119) (Fig.12).

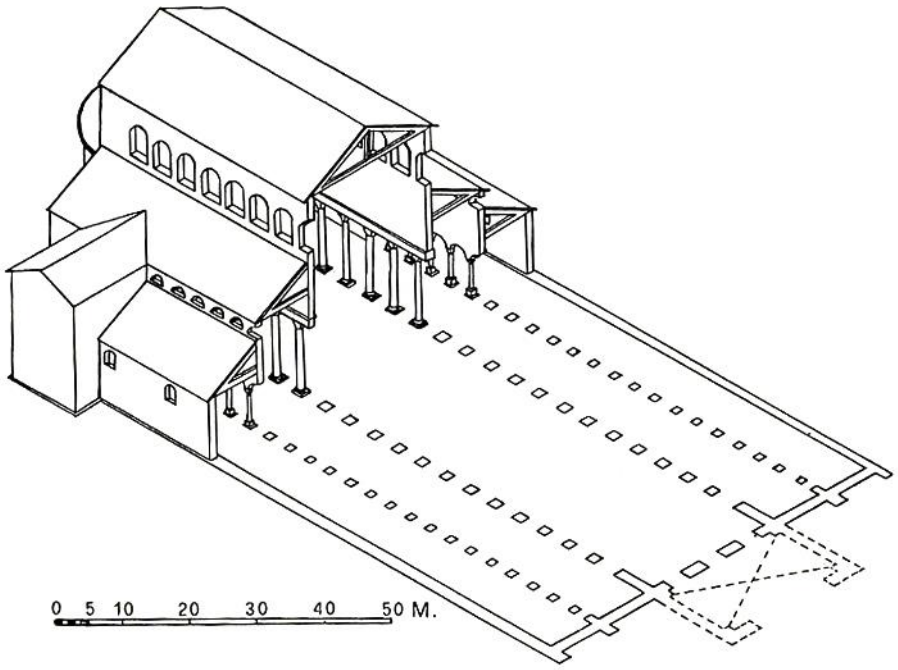


Figure 12 : Symbolic Organization of Space: Isometric reconstruction of Basilica of Saint John Lateran, AD 324, Rome, Italy (Oneonta).

Figure 13 : Symbolic Spatial Organization: an emphasis on mathematic geometry, a symbol of man's reason expressing God's order, St. Peter's Piazza, Rome, Italy (Diliff, 2007).

Behind a process of determination of symbolizing the desire which has been observed in the tendency of functionalism in architecture, a return to the idea of the center has been emerged in the pluralistic style (Norberg-Schulz, 1975, p. 252)(Fig.13). In this understanding of architectural communication, according to Wittgenstein (1942);

> *Architecture is a gesture. No every purposive movement of the human body is a gesture. And no more is every building designed for a purpose architecture* (Albertsen, 2000, p. 67).

2.3.6.2 Non-Formal/Non-Discursive Communicative Methods as part of Semiotics

The non-formal/non-discursive communicative method can be assumed as a field of semiotics, in which the meaning of communication will be studied. This category of communication allocates architecture as a metaphor rather than a language (Forty, 2004). It considers architecture as more interactive rather than entirely an autonomous phenomenon (1997, p. 190). By regarding to the semiotics, specifically pragmatics is the field that is well matched to architecture as long as it explores the context of meaning, and also the linguistic understanding of the audience (Mey,

1993). In the case of urban design, the field of pragmatics is dominantly suitable to use, where the meaning of a remarkable building is frequent in its own context and similarly, in the case of architectural design, while the final form is affected by functional, historical, social and political concerns, and it cannot be abstracted anymore (Markus, 1993, pp. 27-33). Non-discursive communication in architectural discipline is more connected with actual conditions and experience of human being through architectural space. In this sense, to communicate, emotions and atmosphere are used and thus, it is a medium which is used to transfer messages which are easily decoded trough architectural forms. According to Gawlikowska (2013);

> *Human feelings find their expression in abstract art forms more easily than in the language, therefore non-discursive architecture is able to reveal the nature of feelings with accuracy hard to reach for the discursive language* (p. 57).

The important issue that non-discursive confronts, is its dependence on trust of the audience's receiving talent and interpretation (Eyck, 1962, pp. 173-178), providing the ability to understand architectural forms to a limited extent subjective (Gawlikowska, 2013, p. 57). Moreover, According to Scruton (1979), architecture is not able to literally represent the idea, and it is the reason, so that, it applies symbolism to transfer the messages. He remarks that;

> *For Hegel, architecture is a medium only half articulate, unable to give full expression to the idea, and hence relegated to the level of pure symbolism, from which it must be redeemed by statuary and ornament* (p. 5).

On the other hand, Gawlikowska (2013) argues that;

> *Semiotics has cardinal importance in transmission of meaning through the modern built environment, since the contemporary architects gradually make less use of elements, which can be qualified as symbolic* (p. 57).

Eco (1986), Markus (2002), Forty (2004) agree all that the transfiguration of the conception of architectural language from text to into grammar, has been caused by lees literal meanings provided by the built environment and architecture. Therefore, architecture which has been interpreted as grammar, illustrates itself as combination of several components by using a set of propositions (Jencks, 1977) (Alexander, 1977) (Ching, 1979). By considering the practical and emotional necessities, architecture generates meaning through the components which are able to be recombined together. These elements have been categorized including two groups based on the distinction of way of recognition, mentioned below;

- Surface elements, which are recognizable by the senses;
- Deep elements, which are recognizable by the mind (Eisenman P. D., 1971).

Particularly nowadays, in the context of contemporary modern society, the role that architecture undertakes for transferring the universal meanings is important. It is specified by pervasive transformation and the rapid changes in opposite to, permanent, global system or global hierarchy of values (Gawlikowska, 2013, pp. 57-58). Accordingly, the contemporary modern society extremely requires the state of being stable which is transmitted by 'significant stones' as a symbol. In this regard, existential meaning is delivered from natural phenomena, and they can be assumed as order and spirit of a system. Subsequently, to be significant to the modern society, the discipline of architecture is able to interpret these meanings to spatial communicative forms (Norberg-Schulz, 1975).

The important role of architectural interpretation and afterward architectural communicative forms which are linked to the sublime values and global archetypes, will be emerged when according to Piaget (1950, p. 167) cited in Norberg-Schulz (1971);

> *The mobile world, which is not based on the repetition of similarities in connection with a stable system of places, would make human development impossible* (p. 35).

Therefore, in accordance to Piaget's psychological research, Norberg-Schulz (1971) argues that mobile world would prevent the human development and also not give permission to the real interaction between people, and he says;

> *Piaget's research indicates that a mobile world tie man to an 'egocentric' stage, while a stable and structured world frees his intelligence. Nor would a mobile world allow for real human interaction* (p. 35).

In such a condition, architecture has to be essentially exceeded than short-lived experience, and equipped by symbols and anchoring memory. In this sense, the expression of *Genius Loci* introduces preservative spirit of the place by regarding to the mythology in which it has been rooted in. In contemporary notion of *Genius Loci*, it directs to the location's atmosphere. In the theory of modern architecture, expression has profound implications for bringing the place into existence, involving with the phenomenology (Norberg-Schulz, 1980, p. 18). According to Gawlikowska (2013);

The sense of beauty is created by various spatial means including creation of atmosphere, which can be referred to as specific genius loci, transmission of emotions or direction of behavior (p. 58).

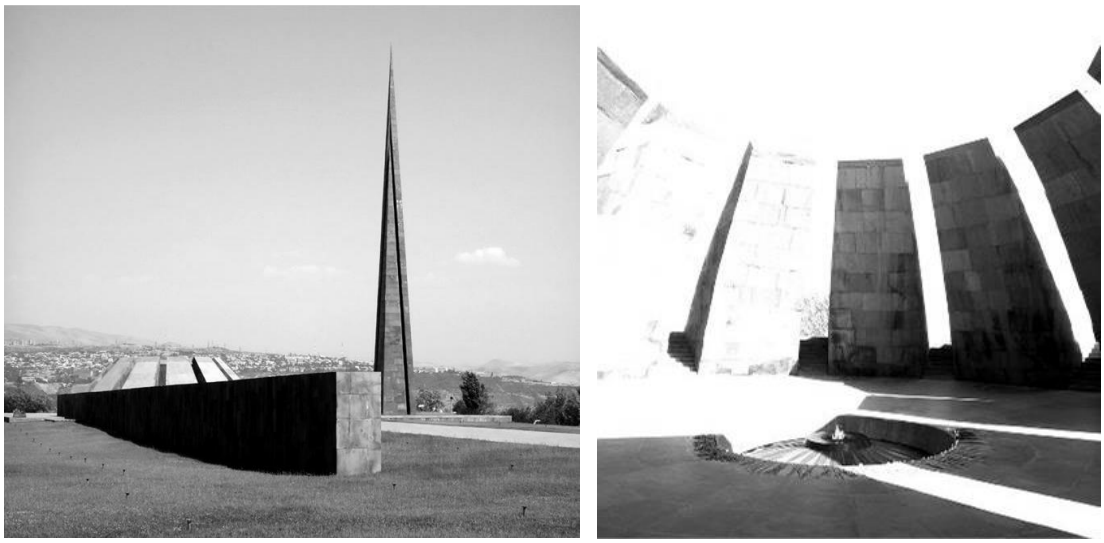


Figure 14 : Symbolic Space, transferring emotions through atmosphere: Tsitsernakaberd, Yerevan, Armenia. Symbol of the national rebirth, the memorial to commemorate the victims of the genocide, transferring the meaning of eternity and sensibility (Photos by Author, 2011).

By considering this means, architecture is able to generate a mental connection which is profoundly rooted in the memory of receivers. By generating a provocative atmosphere for thought, architectural discipline is able to provide contemplation in its audiences, and permits transmission of global values in opposite to literal representing an idea.

Figure 15 : Space of Transcendental Homelessness, example of New York City's subway (Mathias & Lennihan, 2015).

By having no comprised intentional message, even, architectural communication takes place trough constructing the buildings and infrastructural objects. In fact, they create an atmosphere and then, they are able to deprive the surrounding space of human qualities. Such spaces, are the places of '*transcendental homelessness*,' as Krakauer (1997, p. 50) calls, which are frankly constructed to serve efficiency as a functional structure. This recalls broadly the receivers' feelings and emotions.

According to Forty (2004), in semantic sense, by assuming that even architecture is not a language, architecture again bears semiotic metaphors. However, these semiotic metaphors are incomplete by nature, but as Gawlikowska argues, these metaphors continue to exist as effectual tools of communication (Gawlikowska, 2013, p. 58). In fact, space is able to globally communicate through semiotics metaphors, emotions and atmosphere, however, as mentioned above, this communication also is based on the recognition and decoding process of communication codes by its recipient as

soon as it occurs into a formal articulation. Generally, architects do not take the representation of meaning into consideration in their design process (Venturi, 1966). But as Gawlikowska (2011) remarks in her Ph.D. dissertation, 'Architecture in the center of conflict, threats to its identity', cited in as Gawlikowska (2013);

> *The meaning should be strongly considered as a part of the design process, due to the long-lasting and deep effect of space on human activity and mental reality* (p. 59).

Throughout the entire lifespan of the architectural object, the narration of the building is willing. In this sense, the semiotic meaning of the architectural object carries not only unadulterated symbolic communication codes, but in overall look, it also includes all the components of genius loci, the components which have been promoted in time, consists of events, new styles and changes (Markus, 1993). This time-based characteristic of architectural communication is not capable to wholly neglect all the meanings occurred before in time, and therefore, architecture continues to be as a witness to its own whole history. In this concept, architecture accumulates semiotic meanings which are derived from the events that it has been facing with. However, architectural transformations in stylistic, urban, social, political context, alters its meaning to a limited extent, the collective memory of the past will be remained through inscribed city monuments and subsequently, urban structure. In accordance with this statement, Rossi (1982) states that;

> *History exists so long as an object is in use; that is, so long as a form relates to its original function. However, when form and function are severed, and only form remains vital, history shifts into the realm of memory. When history ends, memory begins. The singular form of Split now not only signifies its own individuality, but at the same time, it is also a sign, a record of events*

> *that are part of a collective memory. History comes to be known through the relationship between a collective memory of events, the singularity of place, and the sign of the place as expressed in form* (p. 7).

According to Nijakowski (2006), cited in Gawlikowska (2013), time-related transformations replace;

> *Events and characters from the past feed into common repertoire of symbols (...) constituting system of meanings. Monuments are the material carriers of these meanings* (p. 59).

In fact, by comparing with other cultural communicative artefacts, transforming meaning via communication medium of architecture is able to be more efficient in a long term interval. Namely, due to informatization, the capability of architectural communication has been enhanced through spatial distance. In this concept, symbolic architectural objects are allowed to arrive at universal standard through mass-media, setting up a new universal place, more and more, identify people as familiar (Mcquail, 1983, p. 57). The matter of time, scaling segregation down, in addition, expanding the communication, elevate spatial symbols to universal symbols of cities and regions, socio-political structures, as well as ways of living. Consequently, brands of each specific domain, in parallel with lifestyles, transform into products and therefore, they link themselves to the market sphere. In this regard, at the same time, they begin to be involved in commercial culture domain. Accordingly, their spatial symbolic values transform to a subject of a subject of speculations and competition for audiences. However, once the communities get confused by aggressive employment of information and visual intrusion, this process

of transformations might be directed back to the spatial quality objectives. As Gawlikowska (2013) states;

> *This could have an effect of architectural design in the long-term perspective, in case these qualities will be selected as guidelines for the image of particular organization or institution* (p. 59).

2.4 Theoretical Ground of Meaning in Architecture

As mentioned, indeed, spaces in different architectural and urban scale are able to communicate. On one hand, through the formal and non-formal characteristics of architectural and urban spaces, the transmission of meaning emerges itself, however it is restricted by human perception of the space and their comprehension through the factors such as memory, faculty of vision, and understanding of symmetry and time limitation. On the other hand, the functional necessities of architecture and also the needs of decoding the meaning complexity of symbolic alteration, entail additional inconvenience in order to understand architectural symbolism. Since architecture has been accounted to transfer values, sense of place, and moreover stability, it is depended on the capability of audiences to perceive and interoperate. In this concept, it is explained that only a narrow group of professionals are able to understand the semantic meaning transmitted by space. Furthermore, the ability of formal communication of architectural space is reduced to this limited group, except to the large number of receivers. So, in transition of discursive meaning generated by symbolic architectural elements, it is needed to consider the prior education and skill of audiences. Thereupon, according to Gawlikowska, it can be stated that since, there is no dependable ordering thought on socio-cultural discourses in architecture, the rational-linear perception of the intended meaning cannot be precise in post-modern architecture (Gawlikowska, 2013, p. 59).

By having a contrary proposition, as it is discussed, a large group of receivers are addressed by semiotic components of architecture, by utilization of non-discursive/non-formal communication means such as, atmosphere, architectural forms directing feeling and emotions, or inherently interpreted and decoded symbolic elements. This category of architectural communication is understandable and perceivable through senses- not by faculty of reasoning and understanding objectively-, and therefore, it is experiential and to a limited extent, unconscious as well. According to Gawlikowska (2013);

> *Semiotic architectural meaning transmission can be compared with non-verbal social communication, making it especially suited for communicating feelings and attitudes* (p. 59).

Besides, the architectural and urban communicative procedures are conformable with non-formal/non-discursive communication tools, together with socio-cultural incident. In this sense, semiotic meaning of architecture cannot be translated and interpreted without regarding to spatial characteristics of surrounding, functional account of building, historical background, and socio-cultural clues. By assuming that, if in semantic point, architecture is not a linguistic construct, it either bears semiotic metaphors. Moreover, in this notion on architectural communication, as it has been argued, space is capable to provide a communicative ground by using order, character, atmosphere and feeling and emotions. However, this communication possibility relies on identification and decoding of communicative code by the recipients while it raises itself to a formal articulation.

2.4.1 Concern with Meaning in Architecture

Indeed, the 1960s demonstrated a turning point in the architectural discipline to challenge architects to rethink the thought of function and introducing another new paradigm in the perception of meaning in architecture. Structuralists with their main assumption declared that phenomenon of human life are not comprehensible, aside from just through their interrelations and a profound conviction in which those relations constitute a structure. Moreover, behind the local varieties in the surface phenomenon, there are constant laws of abstract culture encouraged a new structure aimed to search for meaning.

As a matter of fact, the transmission of meaning through communicative construct of architecture, as a medium, is absolutely necessary to both phase of use and enjoyment of architecture (Hershberger, 1988, p. 175). Indeed, the state of meaning: (1) is of substantial in perception through spatial understanding as Creelman states that "every theories of perception deals with the problem of meaning" (Creelman M. B., 1966, p. 15), (2) is a factor that decisively affects the nature or outcome of human behavior (Osgood, Suci, & Tannenbaum, 1967, p. 10), and undeniably, is involved with human feelings (Pallasmaa, 1996, pp. 448-453). In this context, by regarding to the increasing number of situations, it is concerned by architects and urban designers in a similar way that, the under-load, overload, or confusion of meaning in architecture are severely endangered (Hershberger, 1988, p. 175). Consequently, at this time, it would be beneficial to tackle a serious study of the essence of architectural meaning, its relative current concerns, types and levels to acquire knowledge of what is required to build physical environment which can be fulfilling expectations or needs, and successfully perceived, felt and used.

2.4.2 Sources of Meaning in Architecture: Type, Function and Tectonics

To emphasize, as it has been mentioned, the quest of search for meaning has been prescribed at central discussions in postmodern in order to define the essence of architecture. One often experiences three components set as that which cannot be expelled from architecture; including type, function and tectonics. In fact, these elements can be genuinely associated and interpreted to the Vitruvian triad of delight (magnificence or ideal form), commodity (utility or accommodation), as well as firmness (durability) as Nesbitt points out (1996, p. 44). Moreover, type is regularly connected to the next two components; to function through types in view of use, and to tectonic through types in light of structural frameworks. Typology can be additionally be seen as an inventory of general answers for issues of architectural organization, admired to the most diagrammatic level. In this sense, typology represents itself as the profound structure architectural language or architectural communication system.

The correspondence of meaning can additionally introduce itself as part of the type due to the excess of possible forms resulted from the repetition of basic forms or archetypes. In this regard, Nesbitt (1996) remarks that;

> *Consciously or unconsciously perceived, type creates continuity with history, which gives intelligibility to buildings and cities within a culture* (p. 44).

Moreover, some architects and architectural thinkers blend typologies with the pragmatics of constructional procedures, in which they sometimes have been inspired by regional or vernacular methods of building aiming to form the new entities. It can be conceivable by alluding to de Quincy's notion cited in Rubio (1984, p. 18), Also Nesbitt (1996), which underlines postmodern thoughts in architecture and he says;

> *The foundation of Neo-rationalism lie in its conception of the architectural project, the limits of which are already established b architectural tradition and whose field of action is logically framed by the constant return of types, plans, and basic elements: all synchronically understood as permanent and immutable, rooted in tradition and history* (p. 45).

In the modern movement, correspondence of function is the fundamental expressive issue. The function is seen as rational and scientific, not unwarranted or essentially aesthetical. The given priority to function which positions it as content, would propose that function can be assumed to be the essence of modern architecture (Eisenman P. , 1998, pp. 234-239). Consequently, it can be derived to the presumption that architectural form is gotten from or straightforward to function infers that there can be an immediate correspondence between particular architectural forms and particular functions.

In this regard, indeed, this correspondence seeks codes to generate meaning in the architecture while architectural meaning does not essentially exist in the architectural forms, but rather is socio-culturally established in interrelations amongst semiotics and function (Eco, 1997, pp. 173-195).

Tectonics, also, can represent itself as a resource of meaning in architecture. It is generally attached to a phenomenological consideration which refers to the interest of perceiving the thingness of architecture. It means that architecture is able to gather and make meaning more concentrated in the built environment.

By considering to the emphasis of tectonics, which contains a significance level of the criticism in postmodern on a sterile, debased modern architecture and in addition, historicism of superficial postmodern; architects and architectural thinkers have generated a critical narration based on material used, detail designed and structure. However, this narration expresses whimsically characteristics such as eclectic borrowed components, pastiche and applique approaches, but sometimes pragmatically, considering the details and components needed as a chance to express tectonics (Nesbitt, 1996, p. 46). In this manner, in 1980s, Gregotti (1996, pp. 494-497), Frascari (1996, pp. 498-514) and Frampton (1996, pp. 516-528) on, have emphasized the role of detailing in architecture. In this manner, for seeking essence of architecture, Frampton (1996, pp. 516-528) recommends to refer to the structural unit representing itself as not reducible essence of architectural form. In his point of view, actually, the structural unit addresses to the joint between tectonic components of architecture, which is the network that a building can emerges itself into being. In fact, in wide phenomenological sense, the structural unit ultimately refers to the articulation as a presence.

2.4.3 Types of Meaning in Architecture

By considering representational and responsive types as main categories of meaning, there are several subordinate categories that practically ascertain the differences in relation to architectural subject material. With regard to the objective and representational aspects of architectural meaning, representational and referential types of meaning can be disassembled. On the other hand, by accounting to subjective and responsive phases of architectural meaning, affective, evaluational and prescriptive types emerge themselves. In following, these types of meaning will

be discussed in order by regarding to the categorization which has been done by Hershberger (1970).

Table 2 : Types of Meaning in Architecture (By Author).

Representations		**Responses**		
Representational Meanings		Responsive Meanings		
Objective phase of Meaning		Subjective phase of Meaning		
Presentational Meaning	**Referential Meaning**	**Affective Meaning**	**Evaluational Meaning**	**Prescriptive Meaning**

2.4.3.1 Presentational Meaning

By regarding to the notion of 'representational form' given by Langer (1942, pp. 86-90), in the case of architectural form, it directly presents itself to the audience, non-discursively at the same time. Moreover, the architectural forms do not operate as signs, because the representation of architectural form is depended on the observed form itself, instead of, all or any formerly observed forms or various other remote or imagined objects or events. In this concept, the representation of architectural form is generally non-verbal, as we describe it with such words, complex, large, or powerful. In this process, audience isolates the architectural form from its own context, and then, perceives it in terms of its shape, texture, color, etc., and subsequently, realizes its position of affairs toward her/him and other objects, and finally, classifies it in accordance with familiar objects and events. Accordingly, through this process, As Hershberger (1970) points out that audience;

Become aware of the attributes or qualities of the object or event, at least those which are in some way relevant to our condition (p. 45).

2.4.3.2 Referential Meaning

In some cases, the representations arrived to the mind from architectural forms to refer to the specific objects or events, are more important than the architectural forms by themselves. In opposites to the case of representational, now, architectural forms operate as signs or symbols of other objects and events. In such a concept, *words* can be exemplified, as the representation of the form of the word itself, has insignificant value of the representation of what it extracts as meaning. In this sense, with regard to the architectural forms, however, they mostly carry a powerful referential credibility. For instance, doors evoke mostly themselves to most observers as a representation of the activity of 'passing through' within broad range of their spatial characteristics such as size, shape, color, texture, etc. Also, by observers' point of view, the spatial characteristics of a door can be assigned to represent an idea of such a things as the distinctive character of the architect who has designed it, or his/her a settled way of thinking or feeling about the owner. As Hershberger (1970) concludes in the case of referential meaning;

In any of these instances, the door is not seen as itself, but rather as referring to something else (p. 46).

2.4.3.3 Affective Meaning

As soon as the recipient's representation of architectural form has been established, our memories, intentions, and values begin to be involved in once more, and the recipient usually has subsequent internal responses with regard to his/her representation, whether the representation has been formed of the stimulus object, or

event itself, or of some other object or event, for which it is employed to act as a sign (Ogden & Richards, 1923, pp. 149-159). As Hershberger (1970) explains;

> *Our representations may excite us, please us, bore us, sicken us, or do a myriad of other such things. Our feelings and emotions are, thus, brought into play. This then is a further kind of meaning relating to architecture: affective meaning* (p. 46).

By introducing the effective meaning, it differentiates itself from the bodily alterations opposed to the mind, which are emerged to respond to the environment by human organism. The process of swearing in the heated space or the changes in field of vision affected by increasing or decreasing of light in space, can be called as physical adjustments (Creelman M. B., 1966, pp. 198-202). To begin, As Hershberger (1970) argues;

> *Affective meaning comes in response to a representation of a stimulus object rather than directly as a result of the stimulus itself* (p. 46).

Therefore, in this sense, the audience is influenced, not just bodily, by temperature of the space, but by how hot the audience ponders it is in a space. Furthermore, affective meaning is a reached response by regarding to spatial experience of the audience. As Hershberger (1970) points out on affective meaning;

> *Unlike autonomic responses, it varies widely between individuals who are similar physiologically* (p. 46).

In this manner, by referring to Benjamin (Benjamin & Osborne, 1994), Pallasma (2013) affirms the role of spatial experience on the individual's response and he says,

> *True architectural quality is manifested in the fullness, freshness and unquestioned prestige of the experience. A complete resonance and interaction takes place between the space and the experiencing person* (p. 221).

By referring to this argument, a building can excites an ordinary observer that it may rises criticism of an architect and she/he perceive it boring, and vice versa. An underground space can be perceived by one vastly in contrast, than other observer might perceive (Hall, 1966, pp. 131-164).

2.4.3.4 Evaluational Meaning

Evaluational meaning by its subject phase, presents itself as a response to our representations of architectural object, and probably to affective meaning. Rather than our immediate response to architectural form through our feelings and emotions, evaluational meaning must deal with our critical attitudes and conceptions about architecture. For instance, observer can firstly be excited and even pleased by his/her representation of a building, and yet on reflection, terminates that it is not exciting or pleasant building (Rudner, 1951, pp. 67-77). In this case, initial phase, the observer can respond objectively to the building's representational meaning- for example formally-, on the other hand, then to building's referential meaning- for example functionally. But, by considering the values, criteria, standards, or attitudes which are belonged to the observer with regard to his/her former experience, the representation of building comes subjectively to the field of evaluation, and consequently, the observer manifests the building's condition, by describing the building as pleasant, unpleasant, exciting, boring, beautiful, ugly, novel, common or etc. As it is argued here, in process of evaluational meaning, the observer's purposes and values are

placed at the center, with a high concentration. In this concept, Hershberger (1970) exemplifies that;

> *A tourist, for instance, will judge buildings and cities on entirely different bases than will a native. Similarly, a maintenance man will evaluate the details of a building differently than an art historian* (p. 47).

2.4.3.5 Prescriptive Meaning

To recognize and decide what to do, the building's condition has to present itself, and subsequently, it has to effect on the observer's representation, and subsequently, the evaluation of both representation and its results will be emerged. It is called prescriptive type of meaning (Morris, 1955, pp. 62-66). In general, in architectural discipline, the prescriptive meaning is not pointed as it is in discursive language, in which a prescription such as command, entreaty or directive, is directly given. Rather, architecture more frequently is prescriptive in faculty with something is made possible and convenient by an arrangement of forms. For instance, a recipient is navigated to derive that he should not go to the left, but he has to comply with following the wider and gentler walk to the right. Nevertheless, the type of meaning which is evoked, is prescriptive of what action should be taken (Hershberger, 1970, p. 47).Thus, in much the same sense as discussed by Morris (1955, pp. 62-66) and Brown (1968, pp. 82-109), prescriptive meaning is a 'disposition to response'.

According to Hershberger (1970);

> *It is the only type of meaning which can be so labeled and, thus, proves itself insufficient as a complete definition of meaning. Admittedly, this type of meaning might prove adequate for persons primarily interested in behavior* (p. 47).

2.4.4 Levels of Meaning in Architecture: Representational and Referential

By defining the concept of meaning as an internal and intrinsic ‘stimulus-response’ set of circumstances which is assimilated of representations and internalized responses, two types of representations have been introduced: representational and referential; subsequently, three types of internalized responses have been identified: affective, evaluational and prescriptive. Here, through introducing a framework manifested by Hershberger (1970) by referring to the classification done by Whitehead (1927), it is aimed to demonstrate multiple possibilities of architectural meaning.

2.4.4.1 Recognition of Form

Probably, the most basic level of meaning in architectural discipline is the identification of architectural form in which, leastways, there are two variations. On one hand, the recognition of architectural forms is in relation with other forms. Furthermore, this class of recognition of architectural form is intimately based on perception of audience. By going beyond this notion, if at all, in that what is discerned as belonging to a category of architectural forms, likewise, it might evoke the name of the category. In this context, there may be verbal categorization as well as the perceptual one, at once accomplished in the representation (Hershberger, 1970, p. 48). To give an example, having had former experience of triangular forms, the representation of the form can be the shape (*a*), and it is recognized that that is belonged to a category of shapes (b), since we assume to ourselves and take commonly the next step that it is ‘triangle’ (Fig.16 and Fig.17).

(a) (b)

Figure 16 : Recognition of Architectural Form based on perceptual and verbal categorization of the representation (by Author).

Figure 17 : (*Left*): Recognition of Architectural Form relative to nominal level: House number.III (1969-71), By Peter Eisenman (Donohue, 2014). (*Right*): Recognition of Architectural Form relative to nominal level: Isfahan Central Library, Iran (1999), By Polshir Architects (Photo by Author, 2013).

Moreover, in the case of more complexity in shapes, it may of course prevent the audience at the level of perceptual recognition, without having describing words with which to subsume the architectural form (Fig.18).

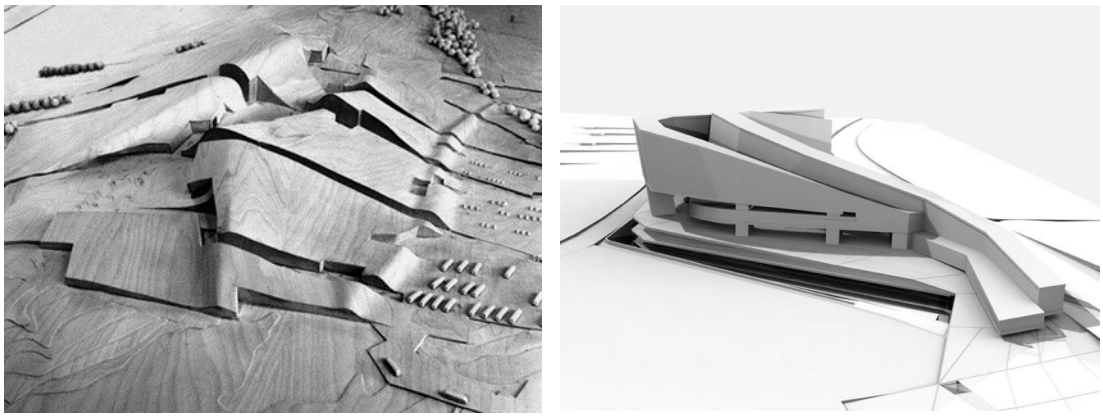


Figure 18 : (*Left*): Recognition of Architectural Form relative to nominal level: City of Culture of Galicia, Santiago de Compostela, Spain, competition model (1999), By Peter Eisenman (Woods, 2010).(*Right*): Recognition of Architectural Form relative to nominal level: ATI Center Complex, Tehran, Iran, competition model (2004), By Hadi Mirmiran (NJP, 2002-2010).

The second level of recognition of architectural forms is based on the classification of forms by regarding to their clearly visible size, organization, strength, texture, spaciousness, potency or their power to affect the audience, and etc. In this sense, the categorization of architectural forms involves rather than nominal level, at the descriptive and adjectival level. In addition, this level of architectural meaning is intelligibly dependent on perception. Once more, by going beyond this notion, if at all, solely in that there can be verbal categorization, likewise to the immediately categorization in the representation. In the other diction, for instance, during the time that an audience regards to a building can, with referring to his/her experience of other buildings, without any intervening time, feel or perceive the simplicity of the building. Subsequently, the question might arise to the mind of observer that: isn't that a simple building? (Hershberger, 1970, p. 48).

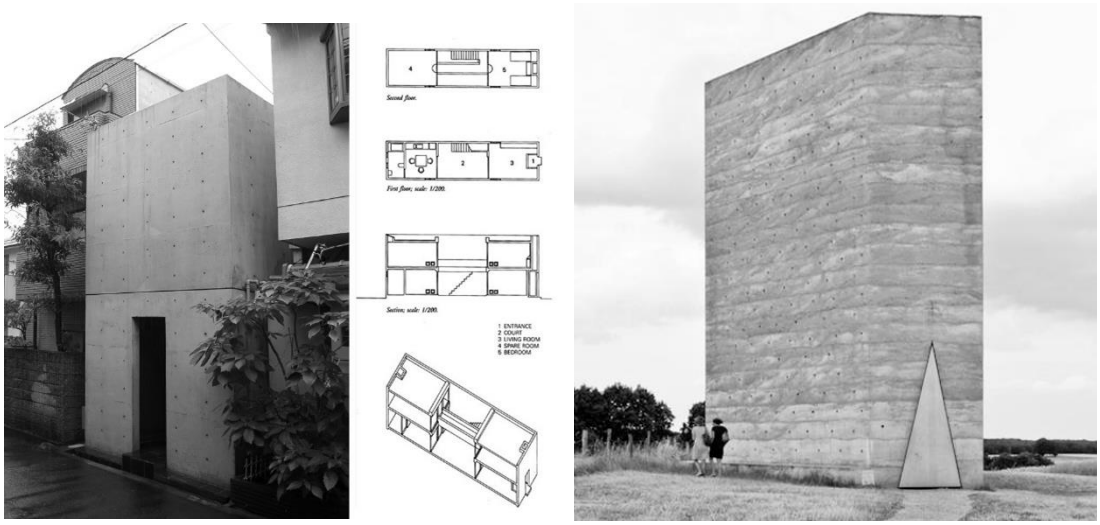


Figure 19 : (*Left*): Recognition of Architectural Form relative to adjectival level: Azuma House, Sumiyoshi, Osaka, Japan (1976), By Tadao Ando (Cheng, 2008). (*Right*): Recognition of Architectural Form relative to adjectival level: Bruder Klaus Field Chapel, Mechernich, Germany (2007), By Peter Zumthor (Sveiven, 2011).

In fact, the samples of this category of form recognition are easily to be detected and numerous to encompass the discussion, as an architectural form can be perceived by its audience to be large or small, complex or simple, well-ordered or chaotic, strong or weak, capacious or cramped, crude or mature, and so on. Moreover, the audience recognizes the attributes, characteristics and qualities of the architectural form, or in another word, and more accurately, the audience ascribes those distinctive indicators to architectural form (Weinberg, 1947, pp. 196-212). Accordingly, the recognition of architectural form in both nominal and adjectival level, whether it is represented itself weak or powerful, simple or complex and so on, does not only depend on the properties of architectural form, but also on our former experience of similar objects and subsequently, stimulant object absolutely involves with comparison between itself and similar ones. According to Norberg-Schulz (1968);

> *Form only has meaning within a system of forms, and that the idea of independent meaningful forms is a misconception. That an independent, that*

> *is, meaningless form has quality, is an absurd statement. A form can only receive a content if it belongs to a system of forms* (p. 156).

Hence, by attributing complexity to an architectural form, architect has intended to achieve complexity relative to other similar architectural forms which he/she has experienced; otherwise, the architectural form will be independent. Therefore, Norberg-Schulz (1968) states that;

> *Such isolated forms ('fancies') are certainly possible, but remain meaningless* (p. 156).

2.4.4.2 Recognition of Status

By regarding to the relationship of the form to the audience, closely related to the level of architectural form recognition, is the recognition of status. Similarly, recognition of status is based on the former experience of observer with forms as well, because only in such a way an observer is able to realize the properties of architectural forms, such as apparent size, color, intensity, texture and spaciousness, and to this point, to specify the adjectival and descriptive level of recognition - such as distance, vividness and brightness of the form. In this sense, but, Hershberger (1970) points out that;

> *The problem of the status is more complex, since most forms, of themselves, are not limited as to size; i.e., a square is a square no matter how large* (p. 49).

To emphasize, with respect to the architectural form, the recognition of status actually is the recognition of use or convention. For instance, the audience is able to distinguish in relation with ourselves of the rectangle, 'door,' for the reason that the audience know what usual size they, in most cases, are with regard to their use.

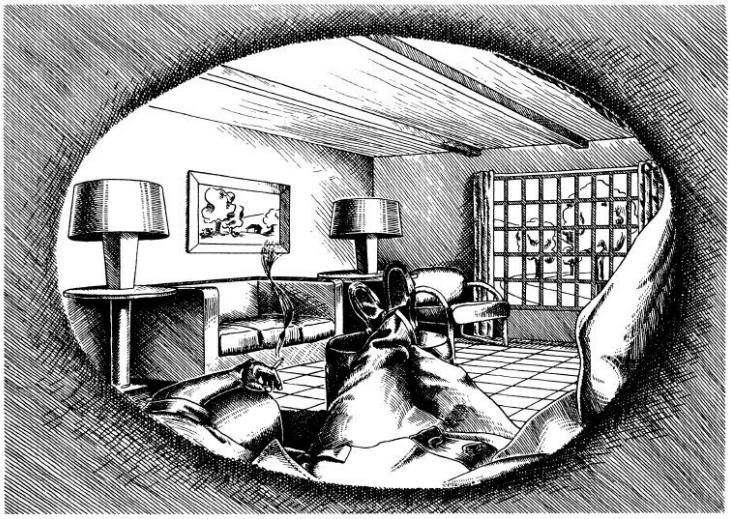


Figure 20 : Determination of the Distance based on varieties of distinct perspectives, Modern Visual Ego by James Gibson (1950, p. 227).

Similarly, the true reason can be recalled for bricks, shingles, stairs, chairs, etc. Furthermore, there are several partial evidences which go together to specify the distance in between the audience and architectural form, in addition to the level at which the distance is being substituted. As an example, according to the investigation by James Gibson (Gibson, 1950) various systems of depth perception, cited and summarized by Hall (1966, pp. 191-196), as he explores through space, he has discovered thirteen distinctive types of perspective which assist to determine the distance (Fig.20).

2.4.4.3 Recognition of Use

Moreover, there are levels of architectural meaning which attributed to the architectural forms by denotation of their use as well as the meanings which are immediately presented to the audience by architectural form (Arnheim, 1964, p. 31). In this concept, the architectural forms are used to refer to their use as signs or symbols. Accordingly, Whitehead (1927) remarks about the recognition of use as a fundamental symbolism by giving an example of a chair and he says;

We look up and see a colored shape in front of us, and we say, - there is a chair. But what we have seen is the mere colored shape. Perhaps an artist might not have jumped to the notion of a chair. He might have stopped at the mere contemplation of a beautiful color and a beautiful shape. But those of us who are not artists are very prone, especially if we are tired, to pass straight from the perception of the colored shape to the enjoyment of the chair, in some way of use, or of emotion, or of thought (pp. 2-3) (Fig.21).

Indeed, such fundemental symbolism is essential to the use of any object and subsequently, to architecture. According to Hershberger (1970);

If a person could not recognize colored shapes as objects which he could use in some way or other, he would have no basis for action whatsoever. Complete chaos would be the probable result (pp. 49-50).

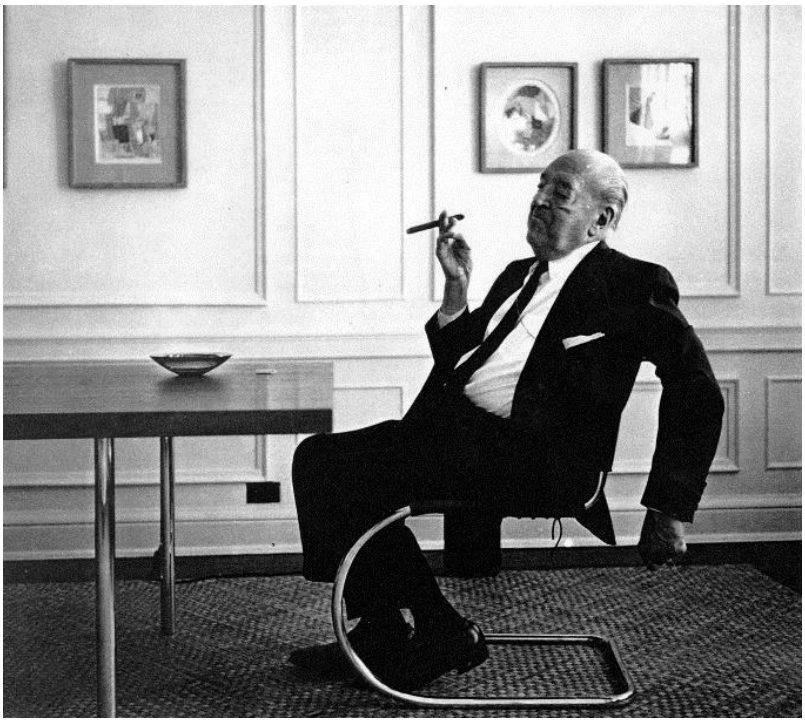


Figure 21 : The Brno Chair by Mies Van Der Rohe, 1929-30 (Helm, 2012).

In fact, in order to control, to transfer, to function in a building, it is of great significance the majority of architectural spaces, forms, and objects which observer perceive in the building are recognized with regard to their use. In this regard, if it is intended by expert that some objects in a building not be identifiable based on their usage, almost certainly, the inhabitant of the building will not be intending and willing or more dramatically, not be able to consent to receive the objects in those terms if any perceptual communication is verily made with those objects. It would not be comprehended from this, that it is infeasible to create objects so that their usage cannot be perceptible. To exemplify, suppose an invented chair which has no any similarity to whatever which the observer had perceived before. Although he could perceive the object and its properties such shape and color, but actually, the observer does not know what it is and what to do with it, whether to be worried about the object or to use it. In this case, there are possibilities of various emotional responses to the object based on the perceived shape and color. Accordingly, the observer reacts on the basis of his/her conception of what the object should bear a resemblance to, very likely followed by an analysis of how it could be used (Hershberger, 1970, p. 50). Similarly, the reaction to or lack of reaction to Le Curbusier's Villa Savoye by an inhabitant of Paris who was only intimated to earthbound houses in Paris, can be investigated (Fig.22).

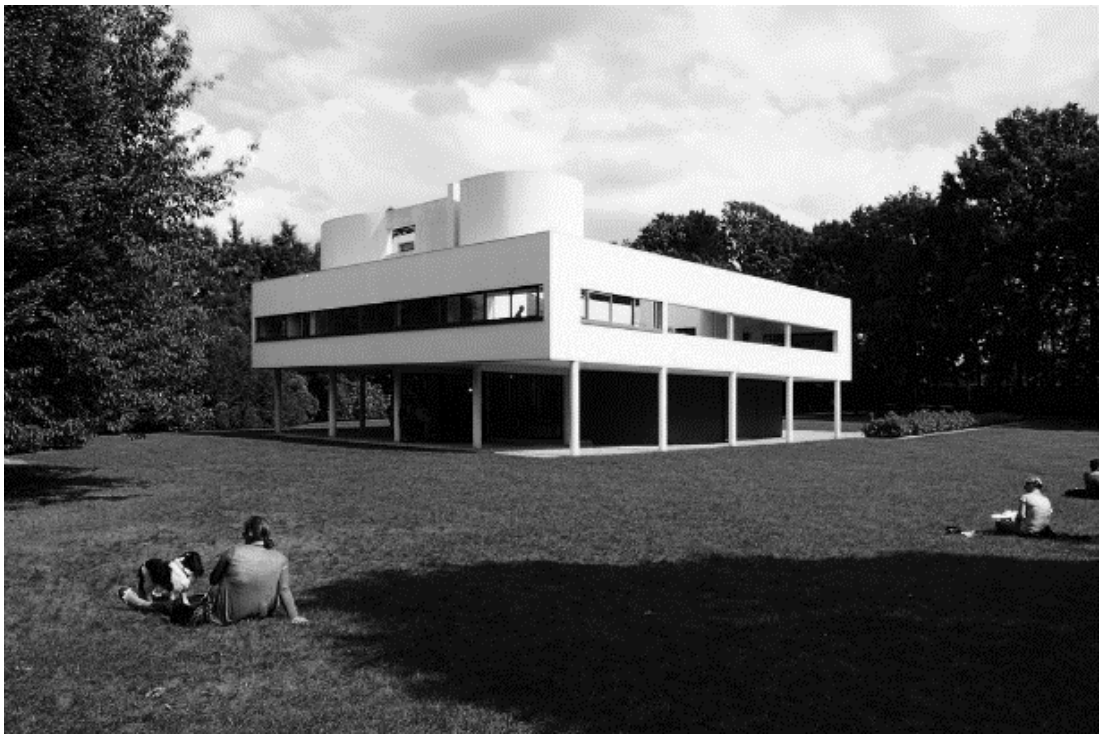


Figure 22 : Villa Savoye, by Le Corbusier, 1929 (Kroll, 2010).

In the case of Villa Savoye, surely all observers are able to perceive its shape and color, mostly are able to recognize it as man-made structure, some can recognize it as a building, and few would recognize it as a house. Furthermore, in each category of recognition, except the recognition in first level of perceiving shape and color, the process of symbolization will take place in the sense of use. In this concept, in the level of recognition Villa Savoye as a house, it has been fully and strongly symbolized in comparison with the levels of recognizing it as a man-made structure or a building.

2.4.4.4 Recognition of Human Function

By regarding to the human function, there are two sides of recognition of architecture. The first phase of recognition has to concentrate on the human function immediately provided for on the interior space of a building or its immediate exterior spaces. Therefore, an observer recognizes the house as a place in which a family is able to dwell in relative to other components of a society. Moreover, the interior

spaces of the house are named with regard to their main function; a bedroom is allocated for sleeping, the bathroom is allocated for showering, the lounge area or dining room is for feasting, so on. Furthermore, another aspect of the house, but with lesser importance, is its capacity to keep undesirable guests out. The castle, conversely, while giving a few aspects of a house, would have all the more importance regarding keeping undesirable guests out. Its customarily high, thick, coarse, and windowless walls would adequately convey this capacity. In either case, the two building typologies are mainly differentiable for the functions of the people who are permitted to be in or forbidden. Moreover, comparative contentions could be given for an inconceivable number of building typologies (Hershberger, 1970, pp. 50-51).

By regarding to the classification given by Hershberger (1970), regarding human functions as a level of architectural meaning, the second feature of the architecture needs to consider the architecture as a part of a city. This is the viewpoint that which Lynch (1960), Crane (1960) and Brown (1965) were basically concerned. These concept responses in such a manner that considering by what sort of information, the individual buildings can communicate to the users of the city. In this respect, Lynch (1960) characterized five essential pictures, a large portion of which architecture is able to give at any rate to a limited extent: Landmarks, Edges, Nodes, Areas and Paths.

2.4.4.5 Recognition of Building Function

one kind of symbolic attitude in architecture which is more fundamental in one sense than even what imparts information about the human function needs to do with building function. For this situation, the components of a building show their utilization as far as the basic undertaking they perform or the environmental

conditions which they control. Case in point, a column as one structural component of a building, is utilized to hold up a beam or other spanning member which thusly bolsters different components. In just an exceptionally restricted sense are the column and beam utilized by individuals yet they have meaning since we comprehend their utilization. It could be contended, maybe, that we utilize the column and beam to see how the building is held up. Therefore, in this respect, by considering the totality of these building components that we named structure, Hershberger (1970) says that;

> *Parts of buildings have meaning with respect to the structural task they perform, not just to the human function they allow* (p. 51).

As it is mentioned, we can likewise perceive building components regarding environmental control. Once more, despite the fact that we don't utilize these components straightforwardly, we comprehend that they function to permit us to utilize the spaces they shape. The outside covering of the walls and rooftop and in addition the windows in buildings, are utilized to keep out the climatic factors from the interior spaces. Additionally, heating and cooling systems, insulation and lighting all have a significant meaning as far as their capability to control the environment. Therefore, in this respect, by considering the totality of these components together with their combination with structural components, can be named a building, as Hershberger (1970) says;

> *The combination of the communication of building function and human function allows us to recognize a building as a house. The house, or church, school or office cannot be defined or recognized as such except in terms of human function in combination with building function* (p. 52).

2.4.4.6 Recognition of Purpose

In addition to the function, it is feasible for an architect to convey the purpose of the architectural forms and spaces which he plans (Hershberger, 1970, p. 52). Therefore, it is just too simple to observe an object which was effectively identified as an architectural form, yet which looked so uncomfortable that we barely sought to settle down in it. One reason, accordingly, for settling down is to accommodate, which can be considered as a physiological purpose. Another purpose may be rooted in mental status. A house may be utilized by settling down in it, for physiological purposes, as well as for reasons for making a feeling of security in the environment. Accommodating in a house may likewise demonstrate a social role or status, such an apartment, villa, palace, and so on.

2.4.4.7 Recognition of Value

Values can be communicated in architectural discipline both with respect to the architectural forms themselves, the utilization and purpose for the architectural forms, and autonomously of either. Firstly, With respect to the symbolizing of structures which are esteemed of them, we look both to those architectural forms which are frequently utilized, and to those architectural forms on which the most consideration is lavished. Each historical epoch appears to have had its most favorite architectural forms, pretty much as most architects appear to have theirs. It is even likely that our representations reflect our own formal values. For instance, as Hershberger (1970) exemplifies;

> If we appreciate triangles, we will probably see them in more objects than will people do not appreciate them (p. 52).

While it is not clearly common in our cultural setting to value activities, actions, behavior or utilization freely of purpose, maybe one case despite what might be

expected would include going and remaining. We have a tendency to spend generously incredible considerations on places such as rooms, courtyards, and so forth; yet we let individuals go through the most discouraging underground passages, undistinguished lobbies or cramped lifts to get to these places. Thus, in any event as of not long ago, in general, it was considered in terrible taste to show or put forth formal expressions with the mechanical apparatus of the building, while spatial and structural displays were the request of the day.

Secondly, architectural forms are frequently used to demonstrate the value of different purposes, including physical, social, and mental or psychological, social and symbolizing purposes. In fact, architectural discipline by itself is capable to express such values (Hershberger, 1970, p. 53). Indeed, even the architecture of the early functionalists where the ornamentations in their works have been rejected, they also symbolized a cultural value, as Mies Van de Rohe verbalized it in his well-known pronouncement: Less is more (Frampton, 1992, pp. 161-166). In this sense, in addition, by considering to the revival and eclectic architecture of the 18th and 19th centuries, it can be seen an alternate aspect of the cultural meaning in operation. In this respect, a few buildings of those times were proposed to call forward images of other buildings which were appreciated for some reason (Fig.23).

Figure 23 : The Boston Public Library (*Left*) in a Renaissance style, has been designed by Charles Follen McKimin 1888, which is modeled based on the Bibliothèque Sainte-Geneviève in Paris (*Right*), designed by Henri Labrouste in between 1843-1850 (Wikimedia Commons, 2012).

Consequently, it can be stated that most buildings, nonetheless, imitated some past or far away style of architecture in time, in an endeavor by the architects or clients aimed to connect themselves with the values which they have recognized that period or architectural style represented. To clarify more, for instance, a considerable number of the government buildings in Washington, D.C. are Greek revival, since it was recognized that in such a way, the values of a democratic society could be deliberatively represented by Greek revival as an architectural style.

2.4.5 Levels of Meaning in Architecture: Responsive

The levels of meaning so far examined were fundamentally rooted in a representational nature; they managed with architectural forms, their utilization or purpose, or the value that society particularly puts in them, and so forth. In addition to them, there are also the responsive levels of meaning, those levels which are engaged with us and what we think or feel about the things represented. In this regard, responsive levels of architectural meaning have been already predetermined as including affective, evaluative and prescriptive meaning; which explained briefly below in turn.

2.4.5.1 Affective Meaning

The affective meaning may come in response because of the architectural forms themselves as an observer sees a building with obscure use and purpose, yet whose formal properties basically please her/him. In this regard, the observer is influenced by the architectural forms themselves. Then again, the affective meaning may come in response to the utilization of architectural forms, and in this way, the observer will be affected by the use. With regard to this, it ought to be specified that there is typically a lack of compatibility or similarity between representations which affect us. Similarly, it can be said of purpose and value. In the light of purpose and value, Hershberger (1970) exemplifies that;

> *We see a magnificent columned building and discover that it is a dime-store, and are both let down and annoyed* (p. 55).

Subsequently, it should be mentioned that, affective meaning is also able to come in response to any or all features of our representation of a building. It is not attached only to the presentational or to the referential features of architectural meaning.

2.4.5.2 Evaluative Meaning

The same is valid for the evaluative level of architectural meaning, however in this level; the response is reflective (Hershberger, 1970, p. 55). It relies on upon applying criteria and norms as a powerful influence for our representations. it can answer the inquiries which the architectural form that instantly energized us, is proper in the light of the building's purpose or additionally, such consideration can be lavished on architectural forms of this typology or not. Likewise, it can answer the inquiries regarding the use of the building and its accomplishment with respect to its efficiency. In this sense, these and numerous different inquiries are postured and replied in our assessment of architecture.

2.4.5.3 Prescriptive Meaning

The prescriptive level of architectural meaning is regularly the most responsible to the all aforementioned levels of meaning. It is insufficient to perceive lonely the architectural form to act; the user or observer has to perceive the utilization or use at least. Be that as it may, purpose likewise enters, while the building may not be expected for her/his use. Subsequently, the value which is determined on a building by the society, may likewise impact her/his action, whether she/he walks or runs, whether she/he carries on respectfully or detachedly. Be that as it may, this depends likewise on whether she/he shares the values of her/his social order. In this respect, the quick impact will likewise temper her/his choice. at long last, in light of every one of her/his representations, influences, and assessments, the observer or user takes decision what she/he will do, and accordingly, he prescribes her/his behavior and then acts (Hershberger, 1970, p. 55).

2.5 A Composite Framework for Studying Meaning in Architecture

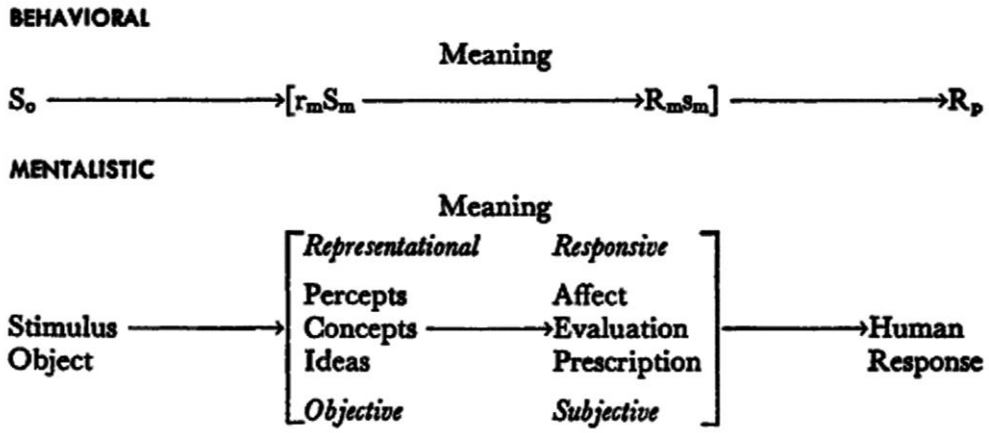
To prepare the checklist applicable to designated architectural examples and to explore the state of meaning, here, the approach has been taken from the combination of ‘Mentalistic’ and ‘Mediational’ theories of meaning on one hand to study non-discursive and non-verbal aspects of architectural meaning. Although, it is with some significant changes in emphasis and details from the discussions mentioned above. On the other hand, linguistics also have been considered in the framework of category of discursive and verbal meanings in architecture.

With respect to mediational hypotheses of architectural meaning, here, there is no prominence given to a fulfillment of meaning based on behavior. In reality, it is supposed that the last or culminating response to an external stimulus is regularly

internal including thoughts, feelings and so on. In this sense, when behavioral responses are occurred, it is concurred that they are mediated by an inward stimulus-response circumstance. On the other hand, with respect to the mentalistic theories of architectural meaning, here, there is no perseverance that mental action is confined to the interplay of the brain or that all or any of it is entirely undetectable in general. For instance, the work of some Russian researchers in measuring different autonomic reaction with respect to verbal stimuli is as of now demonstrating potential outcomes around this area of study (Creelman M. , 1966, pp. 116-120). At last, here, the architectural meaning is not considered to rely on upon the external sign phenomena, despite the fact that it regularly does. In this way, the applicable model of studying architectural meaning to be presented is expected to cover circumstances in which the object or event serving as a stimulus which is treating as a sign or just as itself.

Accordingly, with regard to the approach introduced by Hershberger (1970, p. 42), the applicable model of a meaningful circumstance can be given in both behavioral and mentalistic terms, as it is shown in the table below (Table.3).

Table 3 : Applicable Model of a Meaningful Situation
(Hershberger, 1970, p. 42).



As it can be seen, in both models, within the brackets, the words or symbols inside are planned to include meaning or a representational mediation process. As Hershberger (1970, pp. 42-43) explains based on the table above, the stimulus object (S_o) is reacted to (r_m) as in it, or that to which it alludes as a sign, is represented in the human single-celled life form as a percept, idea, concept, image or whatever. For instance, an individual sees the building, an individual perceives the sound of strides, or an individual feels the wind in her/his hair. Following, she/he has a representation of a kind or another as a reaction to some external object or event. Furthermore, she/he does not internalize the objects or events themselves, or the objects or events to which they allude as signs. In this sense, she/he just internalizes representation of them. Thus, these representations serve as a mediated stimulus (S_m) for a mediated response (R_m). In such manner, the mediated response is able to be emerged in several formal structures. As Hershberger (1970) deliberatively explains;

> *It might be a tingling in our spine or a shortening of our breath. It might be a feeling of disgust or contempt, or conversely, of excitement or joy. It might consist of thought about the goodness or value of the presented object or event. It might include ideas as to that should be done about the object or event* (p. 42).

As the result to briefly consider, the mediated response (R_m) might be emerged itself in the levels of affective, evaluative or prescriptive meanings by its essence. In this concept, by referring to Gibson (1950, pp. 208-213), in any event, in fact, the mediated response is not to the event itself or the object, but rather to our representations of the event or object. Subsequently, in its turn, the mediated response (R_m) may present itself as a mediated stimulus (s_m) for an ensuing behavioral (noticeable) response (R_p). that is, our contemplations or feeling in

regards to our representation of on outside object or event, can be inclined to condition or anticipate our behavioral response to the event itself or the object (Hershberger, 1970, p. 43).

Presently, it ought to be re-accentuated that all internal or external responses to the environment are reliant to a vast degree on a man's experience, including his memories, intentions and values. In this regard, the points mentioned below have been taken into consideration.

- Firstly, the representations of a stimulus object (S_o) have to be assumed as selective. One doesn't see all that is accessible to be observed, or even, all that is pondered the holds of his eyes. He sees what he has figured out how to see. All the more effectively, according to Gibson (1950, pp. 208-213), one credits qualities or referents to external objects or events which, in view of experience, are applicable to our condition;
- Secondly, at the point when the particular representation in its turn expresses itself as a internalized stimulus for our contemplations and feeling about stimulus object (S_o) or event, therefore, these thoughts and emotions are again reliant on experience. Accordingly, they will change as indicated by how our past involvement with the stimulus object or event has differed (Hershberger, 1970, p. 43). For instance, as Pratt (1956) says;

  People who love San Francisco find everything in the city loveable. Those who detest New York find almost every aspect of that metropolis detestable (pp. 1-11).

At long last, consequently, our previous experience conditions our readily apparent responses in no less than two ways mentioned below;

- The first is directed via the internal response considered as mediators;
- The second one is on account of conditioning in which the external response promptly takes after the inward representation of the stimulus object (S_o). For this situation, past experience as conditioning present itself straightforwardly to impact behavior identifying with the representation (Hershberger, 1970, pp. 43-44).

The model of studying architectural meaning developed here has the positive points mentioned below;

- Firstly, the proposed model, as a two-stage model, is consisted of both internal representations and responses, in which the model corresponds more accurately to the mere relationship of meaning towards external objects and events such as signs.in this respect, the assigned model will have descriptive value;
- It has informative quality in that it shows the functional reliance of the second phase of meaning on the first.

In the other word, in fact, there are two particular territories, both relying upon experience, in which persons may contrast in their derived meanings ascribed to architectural subject.

2.6 Summary of the Chapter

In this chapter, by having a general overview on Post-modern theory of architecture, the significance of meaning in architecture as a theoretical theme which deeply is in

search of the essence of architecture has been considered. Regarding to this ground, the various theories of meaning has been discussed in order to establish a philosophical ground for studying meaning in architecture, but in this sense, the vitality of understanding architecture as a communicative structure was deeply requested. Therefore, the discussion has been extended to introduce verbal and non-verbal communicative components through the perception of space and spatial understanding in architecture. On the other hand, the state of meaning and the concerns with it based on the emerged criticism on modern architecture has been explained aimed to open a new perspective towards the sources, types and the various levels of meaning in Post-modern period. Finally in this chapter, a framework for searching meaning has been sketched which was basically combined by Mentalistic and Mediational theories of meaning to follow the non-discursive levels and on the other hand, Linguistic theory to search discursive ones.

In this ground, at the central point of the postmodern discussion of meaning in architecture, we frequently encounter the element posited as that which cannot be removed from architecture, technological state of architecture and tectonics. In this manner, technological state of architecture has been assumed more generally as a rich source of meaning. In this concept, in following chapter, the distinct but customary instrumental-anthropological conception of technology will be introduced and investigated in philosophical ground, in order to figure out the issues of technological instrumentalization and its consequent meaning.

Chapter 3

INSTRUMENTAL-ANTHROPOLOGICAL PERSPECTIVE TOWARDS TECHNOLOGY

3.1 Technological Progression

According to Feenberg (2002);

> *Technology is a two-sided phenomenon: on the one hand, there is the operator; on the other, the object. Where both operator and object are human beings, technical action is an exercise of power. Where, further, society is organized around technology, technological power is the principal form of power in the society* (p. 16).

New developments of technology emerged from transformation of scientific knowledge into technology; has nourished a tremendous diversity of visions and ideas which are aimed to turn mankind to the subjects as well as the objects of world-historical process of modernization. In this sense, there is a particular mode of vital experience based on contradiction, which directly refers to all human experience of space and time, of the self and environment as well as all perils and possibilities provided by technology. It has been occurred when technological is capable to speed up the whole tempo of changes without direct human mind control. For instance parallel uncontrollable changes in societies- as revolutionary consequences of this condition- are occurring alike to correspond to the changes in technology. Equally we can address to, immense and rapid demographic upheavals as a consequence of

this sociotechnical changes, caused severance of people from their ancestral habitats, and in a wildly uncontrolled manner, moving them at a great speed halfway across the world into new lives; often and rapid cataclysmic urban growth (Berman, 1988, pp. 15-17). Accordingly, in short, these questions arise that: does technology control us and we have a passive relation to? Or do we actively control it?

As cited in Fasching (1981), French philosopher Jacques Ellul (1964) argues that;

> *Modern technology has become a total phenomenon for civilization, the defining force of a new social order in which efficiency is no longer an option but a necessity imposed on all human activity* (Fasching, 1981, p. 17).

Wherefore, as with regard to this concerning technological progress and its consequences, Bernard James (1973) – a cultural anthropologist - wrote that;

> *There [was] a sense of desperation in the air, a sense that man has been pitchforked by science and technology into a new and precarious age* (James, 1973).

As a result of this new and precarious age caused by technological progress, all other spheres have also been affected vastly. Specifically in architecture, some architects such as Le Corbusier, Mies van de Rohe, Buckminster Fuller and Walter Pichler, to name a few, fearlessly started to regard with respect and warm approval to utilization of technology in architecture. As cited in Conrads (1971), Walter Pichler in his manifesto ‘Absolute Architecture’ –published in 1962- says;

> *Today, for the first time in human history, at this point in time when an immensely advanced science and perfected technology offer us all possible means, we build what and how we will, we make an architecture that is not*

> *determined by technology but utilized technology, a pure, absolute architecture* (p. 182).

Buckminster Fuller (2001) is one example of someone who demonstrates that many problems could find their answer by technology, and says;

> *Technology represents philosophy resolved to the most cogent argument… If man did this, such would result. In technology man is empowered to explore and develop his own "if" without reference to the limiting response of other preoccupied egos. Through technology alone the creative individual can of free will arrange for the continuing preservation of mankind despite individual man's self-frustrating propensities* (p. 150).

By considering this fact that the technological activity is the most primitive activity of human being (Ellul, 1964, p. 23), hence, this research intends firstly to explore in a historical vein in order to the understanding of the technological problem or problems in society today.

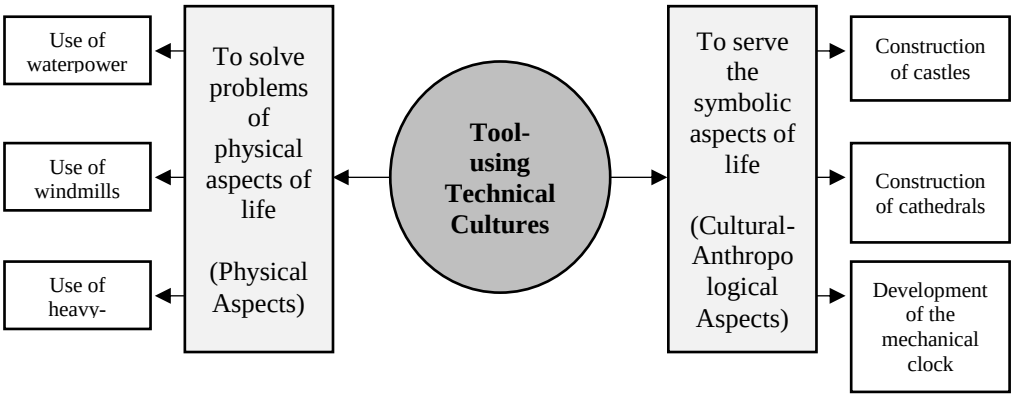
3.2 Emerging a Discontinuity between Historical Epoch and Contemporary

In modern technical society, to clarify the process of sociotechnical changes and indicating what dangers lay ahead, sociotechnical changes into three types, listed below. Neil Postman (1993) defines his taxonomy of sociotechnical changes based on three kinds of cultures distinguished by transmitting in their attitude towards technology. According to him, technological cultures may be classified into three types: tool-using cultures, technocracies, and technopolies. In addition, each type, at

the present time, may be found and on the other hand, each is competing the old ones aiming frequently for dominance of their world-view (pp. 16-22).

The main characteristic of tool-using cultures is that the tools invented by this culture aimed to reach two goals. Firstly, on the one hand, the means which are effectively dealing with the urgent and determined problems of physical life, and on the other hand, to perform duties for the symbolic world of art, politics, myth, ritual and religion (Table.4). In either case, means are not aggressive (or, more precisely, are not intended to be aggressive) to the integrity and dignity of the culture in which they are inserted into. Furthermore, from primitive technological tool-using cultures to the most sophisticated ones, are integrated with theology or metaphysical theory which are providing order and meaning to existence. Nearly, they do allow technics to subordinate humans to their own needs (Postman, 1993, pp. 23-26).

Table 4 : Tool-using technical cultures' physical and symbolic goals and their examples.



In this concept, Postman (1993) remarks that;

With some exceptions, tools did not prevent people from believing in their traditions, in their God, in their politics, in their methods of education, or in

> *the legitimacy of their social organization. These beliefs, in fact, directed the invention of tools and limited the uses to which they were put* (p. 23).

But, in a technocracy, means have dominant role in the thought-world of the culture. In some degree, in such a condition, symbolic and social worlds become subsidiary of the development of tools; and increasingly, become subject to the necessities of that development. Thus, we can follow the first calls for separation of intellectual and moral values, as Postman (1993) explains;

> *Tools are not integrated into the culture; they attack the culture. They bid to become the culture. As a consequence, tradition, social mores, myth, politics, ritual, and religion have to fight for their lives* (p. 28).

Subsequently, by regarding to classification defined by Postman, Technopoly represents itself as a state of culture, and also state of mind, which is composed of deification of technology. It means that culture searches its own authorization in technology and following by it, finds as well its satisfaction and order in technology (Postman, 1993, p. 71). Consequently, it does by redefining all physical and metaphysical aspects of technological society, matches itself to new necessities which can be concluded to the term 'totalitarian technocracy' as Postman describes. More importantly, it also requests "submission of all forms of cultural life to the sovereignty of technique and technology" and therefore, technology actively gets rid of other thought-worlds. In this sense, it reduces human life to detecting meaning in technique and machines (Postman, 1993, pp. 48-53). With the rise of Technopoly and involving with new technological symbols, Rem Koolhaas (1997) describes the New York City as Galapagos Island of new technologies, and he says;

A Galapagos Island of new technologies, where a new chapter in the survival of fittest, this time a battle among species of machines, is imminent (p. 12).

3.2.1 Setting the Context: Jacques Ellul and Technological Society

Regarding technology, humans have to match themselves to it, and they have to comply absolute change while technology has to be subservient with humanity (Ellul, 1989, p. 136). In this sense, technology extends its own irreversible and ever-extending rule to all scopes of life. So, the technological society is the one that is committed to the demand of constantly improving the means to carelessly examined ends. To emphasize, technique takes its main role to convert ends into means, and conversely it turns means to ends. Accordingly, it of course influences all aspects of a society.

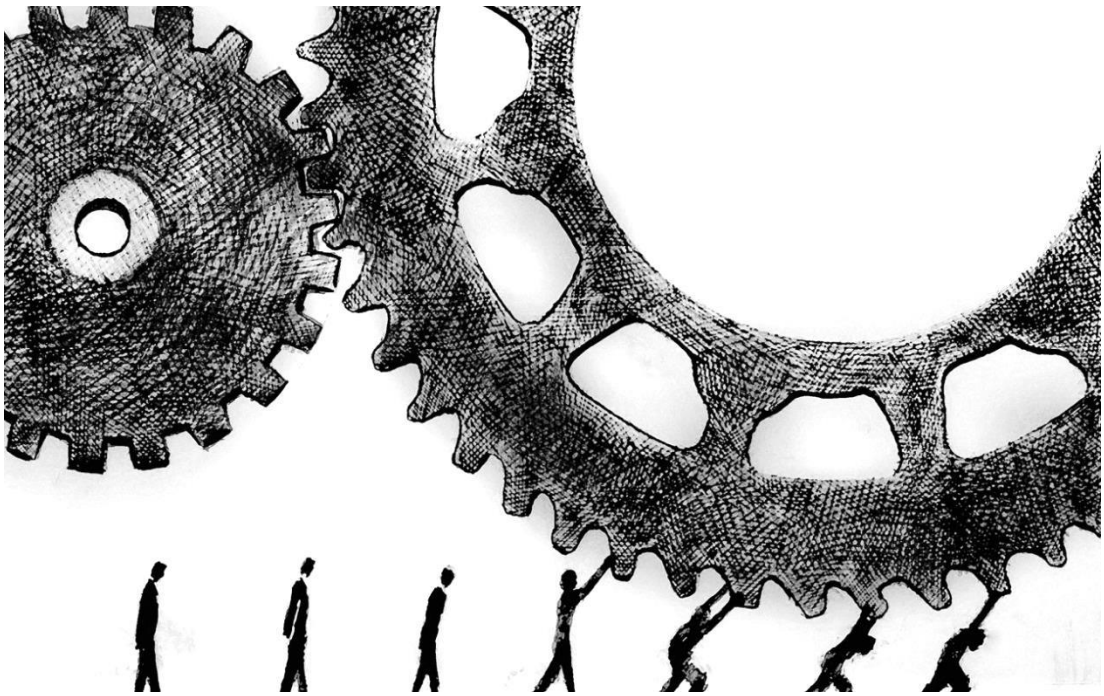


Figure 24 : Impacts of technological conversion -ends into means- on human being (By Author).

Therefore, by confronting to the atmosphere caused by technology, modern man finds himself being beset by anxiety and a feeling of insecurity. Together with this, he tries to adapt himself to the sociotechnical change which he is not able to comprehend. In this regard, technique puts out the ideas that makes its rule in question and refines for public debate only those ideas which are in substantial accord with determined values in sociotechnical change. In Ellul's conception, therefore, life is not happy in a society that is dominated by technology, because every part of a technological society responds to the needs which are generated by technology itself (Ellul, 1964, pp. vi-viii).

In proposing and expanding this discussion, it is better to open a debate over the Ellul's characteristics of primitive and modern techniques- based on Ellul's classification of techniques-, in order to differentiate them and search out the factors which affected on formation of modern technical society. So in this case, for understanding the problem of technology in society today, it is necessary to speak in a historical vein regarding Hegel's interpretation of history- presence of historical continuity. In this concept, Heidegger considers the history as a thing which signifies the whole of beings including technology that change in time, and he (1996) clarifies that;

> *History does not so much mean the 'past' in the sense of what is past, but the 'derivation' from it. Whatever 'has a history' is in the context of a becoming. Here the 'development' is sometimes a rise, sometimes a fall. Whatever 'has a history' in this way can at the same time 'make' history. 'Epoch making,' it 'presently' determines a 'future'. Here history means a 'connection' of events and 'effects' that moves through the 'past,' the 'present' and the 'future.' Here the past has no particular priority* (p. 347).

3.2.2 Historical Development and Characteristics of Primitive Technology

Jacques Ellul's explanation of techniques throughout the history, prepares a helpful description of the theme of continuous change, flux and evolution of technology. He indicates a proposition that the origin of the technology can be found in magic, which established the first technology. Comparatively, Aleister Crowley introduces the practice of magic as "science and art of causing change to occur in conformity with will" (Crowley, 2004, p. vii), which assists us to understand the equation of technology and magic declared by Ellul.

As Ellul (1964) explains, building is one of the most primitive technological activities of man, as similar as techniques of clothing, weapons, of hunting or of food gathering are. There is a mystical phenomenon of invention at the core that is the origin of these technical activities- which affirms of no complete explanation. In this concept, techniques also include spheres of imitation, transitions of one technical appearance to another form, models of penetration. However, it can be demonstrated that technique is engaged intensely with man's psychology and is determined upon that psychology and upon what has been named technical motivation- which was religious-, but there is no exact explanation of how a technical activity came to be, which was not existed before. He points out that;

> *Each primitive operation of man implies the bridging of such an enormous gulf between instinct and the technical act that a mystic aura hovers about all subsequent development. Our modern worship of technique derives from man's ancestral worship of the mysterious and marvelous character of his own handiwork* (pp. 22-23).

From a simple to a more complex form, certainly primitive technique has developed along two recognizably different routes. Firstly, the physical form and not abstract type of technique called *homo faber* or man-made, to which is usual for us, and also which constitutes the problems that we have perused in the usual way. Secondly, there is a technique roughly with spiritual order that we can name it, magic. Magic has been evolved in parallel with other types of techniques to express the human's volition aimed to get determined outcomes of a spiritual order. In order to obtain them, humans put together not varied set of aggregate of rites, formulas, and established methods. Besides, strict adherence and fixity are the manifestation of the technical character of magic, which means that the best possible means that are able to obtain the desired outcomes, are the most efficient ones, and there is no reason to change them to another. In fact, in spiritual domain, magic is capable to express all the characteristics of a technique. It acts as a mediator between human and 'high powers', just as other types of techniques are able to intercede in between human and matter. By referring to anthropologist Leroi-Gourhan, Ellul (1964) writes;

> *Magic clearly displays the characteristics of primitive technique, as Leroi-Gourhan indicates when he says that technique is a cloak for man, a kind of cosmic vestment. In his conflict with matter, in his struggle to survive, man interposes an intermediary agency between himself and his environment, and this agency has a twofold function. It is a means of protection and defense: alone man is too weak to defend himself. It is also a means of assimilation: through technique, man is able to utilize to his profit powers that are alien or hostile. He is able to manipulate his surroundings so that they are no longer merely his surroundings but become a factor of equilibrium and of profit to*

> *him. Thus, as a result of technique, man transforms his adversaries into allies* (pp. 24-25).

So, we can argue that this conception of technology is the first attempt to have an effect, adjust and master the surrounding environment through the set of procedures of defense, protection and assimilation. In this sense, Harris and Taylor define the primitive techniques as an "ensemble of procedures that enable the modification of the external environment accordance with human needs" (Harris & Taylor, 2005, p. 31). So regarding to this, the construction of different types of structures, construction of water reservoirs, irrigation canals, use of windmills by aiming to serve physical demands and even to serve symbolic-cultural aspects by construction of castles and cathedrals can be highlighted. Similar to, Ellul (1964)says;

> *He [man] shows that magic is basically a 'scholasticism of efficiency' which man employs as an instrument against his environment; that magic is pragmatic, yet has a precision that must be called objective; and that its efficiency is demonstrated only in certain 'consecrations or disqualifications'* (p. 25).

As mentioned before, primitive techniques have been divided into two groups of 'material artefactual techniques' and 'immaterial magical techniques'. In this sense, Ellul argues that while both techniques became bewildered in their origin, finally they diverge. By regarding to the magical techniques, we perceive a phenomenon which is static in two concepts. At first, by virtue of the fact that magical-technical procedures, once confirmed, it have been modified not often. However, on the other hand, material techniques are tending, in and by themselves, to be evolved. Secondly,

immaterial techniques are static in the sense that is limited in extent by the specificity of its location. Equally, Harris and Taylor (2005) remark that;

> *Magical techniques are the possession of a given group in a given context and cannot easily be transported or adopted by another group. One consequence of this is that magical techniques –unlike material techniques- do not survive their endemic context* (p. 31).

Namely, according to Ellul (1964);

> *When a civilization dies, it transmits to its heirs its material but not its spiritual apparatus. Tools, houses, and methods of manufacture live on and, more or less reincarnated, are to be met with again* (p. 26).

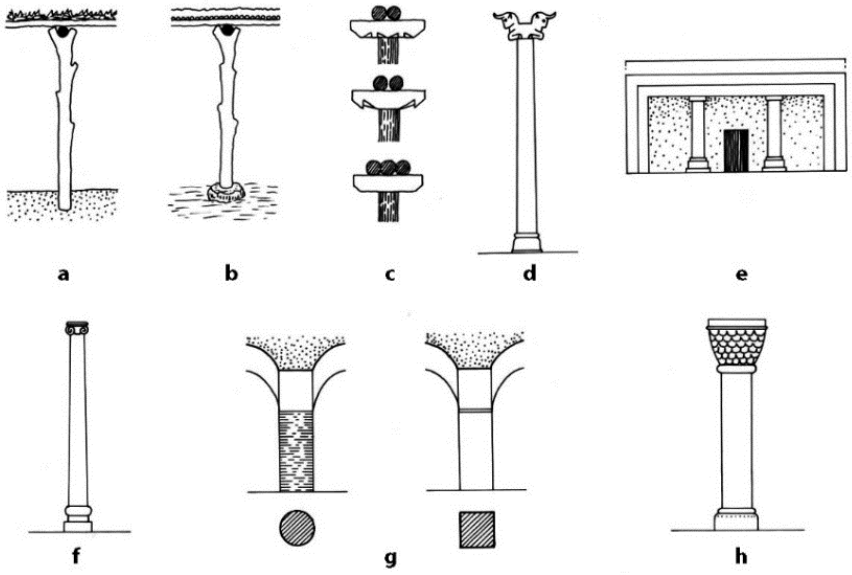


Figure 25 : The Evidence for Transmission of Material Techniques and Methods of Construction to Heirs in the Case of Load-bearing Architectural Members in Ancient Iran. (From prehistoric times to Sasanid period, A.D. 224–651)
a. Tree trunk used as roof support. *b.* Tree trunk planted in stone base. *c.* Wooden capitals from the modern Caspian area. *d.* Column with double-protome capital from Persepolis. *e.* Rock-cut columns at Dokkān-e Dāwūd. *f.* Column from Dā o Doḵtar showing Greek influence in the capital. *g.* Sasanian brick column and pier. *h.* Sasasian capital from Verdenī near Kermānšāh
(Kleiss, 1992).

Furthermore, by considering the regression of immaterial-magical technology, there is another fact which has to be considered: the problem of evidence. In the case of material technologies, an act of selecting or making a decision is relatively simple. As Ellul (1964) explains;

> *Since every technique is subordinate to its immediate result, it is only a question of choosing the one that produces the most satisfactory result; and, in the material domain, that result can readily be seen* (p. 27).

But, on the other hand, there is no such an existing certainty or force of evidence in the case of immaterial technology, because nobody is able to judge the relative efficiency of immaterial techniques. In fact, by regarding to a clear material outcome,

immaterial-magical efficiency is not always to be ascertained. Above all as explained, the two streams of technique which they have been explored from their beginnings evolved in completely distinct manners and sharply separated (Ellul, 1964, p. 27).

As Ellul argues, primitive technology is principally originated and first developed in Near East. Therefore, this essentially Oriental phenomenon has not been concerned with general theories and subsequently, it has very little in the roots of scientific foundation. Indeed as Garrison points out, it has been more directed towards practical application which served to meet solutions through providing relationships in between man's needs and his intellectual capacity (Garrison, 1999, p. 4).

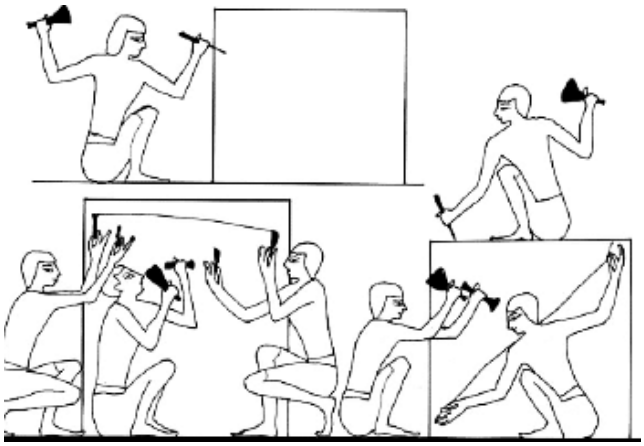


Figure 26 : Stone-dressing, from a Tomb at Thebes, Egypt, 1450 B.C.
(Derry & Williams, 1960, p. 159).

The predominance of primitive technology in its Oriental origin notifies an error which is detected throughout Western contemplation. In this concept, Ellul (1964) says that;

> *The Oriental mind is turned toward the mystical and has no interest in concrete action, whereas the Western mind is oriented toward 'know-how'*

> *and action, and hence toward technique. In fact, the East was the cradle of all action, of all past and primitive technique in the present sense of the word, and later of spiritual and magical technique as well* (pp. 27-28).

Principally in the Near East as mentioned, however, the technique has been firstly developed with very little in the roots of scientific basis; but the Greeks were the first to have a consistent scientific activity and to release scientific idea. In this regard, in Greece a conscious attempt has been done to spend less on means and to reduce the domain of impact of technique. In this concept, Greeks did not seek to apply scientific thought regarding the technology available, because in their notion, scientific thought corresponded to a conception of life, to wisdom. In parallel with, they were suspicious of technology because it depicted a feature of brute force and implied a want of moderation. Specifically, this deliberate refusing of technology was positive activity involving self-mastery, recognition of destiny, and the application of a given conception of life. Although in such an atmosphere, there were some types of techniques which were permitted, as Ellul (1964)remarks;

> *Only the most modest techniques were permitted-those which would respond directly to material needs in such a way that these needs did not get the upper hand* (p. 29).

Subsequently, infancy technique has been remained in its progress in Roman period. In Roman period, technology was also related to Roman law in its multiple forms, both public and private as everything else was. By focusing on the period of the second century B.C. to the second century A.D aimed characterize the technique of this law, we can say that it is first of all not a result of abstract thought, but rather of an precise view of the real situation, which the Romans tried to turn to account with

the fewest possible means. Ellul (1964) highlights this not abstract situation and its concrete technical outcome, and says;

> *This realism respected justice and acknowledged history and necessity. From this concrete, experimental view, which the Romans held consciously, their administrative and judicial technique developed. And a kind of discipline appeared: the use of a minimum of means. This discipline, which probably had its foundations in religion, is one of the secrets of the whole development. To the degree that the Roman had to respond to necessity, and at the same time not permit himself excessive luxury, it was necessary to refine every means, to bring it to perfection, to exploit it in every possible way, and to give it free rein, without shackling it with exceptions and secondary rules* (p. 30).

Moreover, the second main character of Roman law was the search for equilibrium between the purely technical factor and the human factor. It means that the law laid down the structure of human activities and prepared the means that men could use by considering their own initiative. And the third characteristic of Roman technology was that it was directed toward a precise end in order to promote the cohesion in between human activities not as scaffolding which holds elements independently together. To demonstrate, this technology was not self-justifying, it did not have as its own self-development, and it was not imposed from the outside. Roman technology has another characteristic which can be named continuity, in which technology was constantly able to readopt itself in accordance with a historical plan. As we discussed, Romans vastly developed social techniques by referring to their low and plans continuously applicable unfailing in every spot of their territory, but in development of material techniques they did not have brilliant achievements and, as Elull (1964) claims;

> *As regards material techniques, the Romans did not develop them as brilliantly. From the fourth to the first century B.C., and after the second century A.D., there was almost total stagnation, tools and armaments no longer evolved. But from the first century B.C. to the first century A.D., a technical revival took place. Practical necessity was met by the production of animal-powered machines* (p. 32).

In brief, we can summarize the main five characteristics of primitive technology before industrial revolution as mentioned below:

- Primitive technology acts as a mediator between human and surrounding environment through the set of procedures of defense, protection and assimilation;
- Technology was used only in limited functional areas such as production, building, hunting, and so on;
- The used technological tools were limited in those spheres.
- Technology before 18^{th} century was endemic among particular people or in a certain context;
- Primitive technology is possibility of choice for humans.

3.2.3 Factors of Formation of Modern Technological Society

The conjunction in time of five phenomena in transformation of civilization can clarify the formation of modern technological society in nineteenth century. However some of these conditions had existed in other societies; for example, the necessary technical preparation and the destruction of taboos in the Roman Empire in the third century, but the unique phenomenon was the simultaneous existence of all five- all of them necessary to bring about individual technical invention, the mainspring of

everything else. Therefore, by regarding to these conditions mentioned below and presence of technological progression in the center of transformation, the modern technological society has been emerged;

- The fruition of a long technical experience;
- Population expansion;
- The suitability of economic environment;
- The plasticity of social milieu;
- The appearance of a clear technical intention (Ellul, 1964, p. 47).

Obviously, every modern technological application has its own ancestors and it is rooted in a previous technical period, and every period carries in itself inconsiderable leftover but also it is capable to bear the valuable survivals of preceding technologies by itself, and subsequently being a nuclei of new ones. With this regard, which represents itself genuinely new is the formation of a technical complex that is composed by a serial sets of partial inventions that combine into an ensemble. This unit starts to function when the greatest number of its constituents has been assembled, and its trend is toward continuous self-perfection. (Mumford, 1970). According to Ellul (1964);

> *From 1000 to about 1750, there had been a slow fermentation which had no immediate consequences but which had amassed materials in every area of life. They had only to be drawn on for the technical miracle to take place* (p. 48).

This historical continuity has been explored and emphasized by Wiener when he writes;

> *It is interesting to reflect on the fact that every tool possesses a genealogy and is the result of the tools which served to make it* (Wiener, 1961).

Equally, we find ourselves face to face with a familiar problem by regarding to population expansion. In accordance with population studies in relation to the development of civilization, there is an undeniable linkage between population and technology. In this sense, Ellul (1964) argues that;

> *The growth of population entails growth of needs which cannot be satisfied except by technical development. From another viewpoint, a population expansion offers favorable grounds for research and technical growth by furnishing not only the necessary market but also the requisite human material* (p. 48).

If technological progress is to take place, economic milieu will be affected accordingly. Specifically, it has to combine two contradictory traits: at once it must be firmly stable and in flux. It means that the foundations of economic life have to constant; therefore, principal technical research can be dedicated to the set of circumstances and well-defined objects. But at the same time, the economic milieu has to be capable of providing great changes, so that, technological initiatives can be attracted into the economy, and as a consequence research will be stimulated. According to Ellul (1964);

> *Studies of the economic situation in the second half of the eighteenth century show that it had precisely these two opposed characteristics* (p. 49).

The plasticity of social milieu as the fourth condition is the most decisive phenomena which influence the formation of modern technological society in nineteenth century. It involves two factors that mentioned below:

- The disappearance of social taboos;
- The disappearance of natural social groups.

The first of these shows up in different structures, contingent upon the general public included. In general, in the Western development of the eighteenth century, there are two extensive classes including the taboos coming about because of Christianity and sociological taboos. The first class takes in all religious and moral thoughts, judgments concerning activity, the overall origination of man, and the targets proposed for human life. Hypothetically and truly, these were contradicted to technical development. In fact, at the point when confidence had been deciphered into bias and belief system, and individual religious experience fused into a social establishment, a solidifying of moral positions occurred, in which it corresponded to the creation of genuine taboos. At this point, it has to be stated that, this was the mainstream mindset made by Christianity, especially amid the seventeenth century. Firmly identified with these were sociological taboos, specifically the conviction that a characteristic chain of importance exists which nothing can be modified. In such an atmosphere, the place of noble class and pastorate couldn't be addressed. Subsequently, at the point when amidst the eighteenth century these started to be scrutinized, the response of the general population was that heresy was being dedicated. In this concept, this constitution of society, which everybody depended on and perceived as the stand out conceivable, was an impediment to procedure inside it; technique was held to be in a general sense blasphemous and sacrilegiously

committed. Therefore, the regular progressive system worked against the act of the mechanical craftsmanship, which would just convey comforts to the lower classes. Also, since the lower classes strongly consider natural hierarchy into the chain of their beliefs, therefore they must be compliant and passively detached; they didn't attempt to better their part. To emphasize, the critical point here was not the truth of the realities or the presence of the progressive hierarchical system; it was confidence in its essential and sacrosanct character which hindered the technique (Ellul, 1964, pp. 49-50).

Besides, by considering the natural groups in the society, the very structure of society was likewise an obstruction. For instance, Families were firmly composed, the guilds and the gatherings established by aggregate-collective interests were independently distinct and autonomous. Moreover, the individual discovered subsistence, support, security, and scholarly and moral fulfillments in assemblages that were sufficiently solid to answer all his needs yet sufficiently constrained not to make him feel submerged or lost. They sufficed to fulfill the normal man who does not attempt to delight imaginary necessities if his position is genuinely steady, who restricts development on the off chance that he lives in an adjusted milieu, despite the fact that he is poor. In such a condition, Ellul (1964)remarks that;

> *This fact, which is so salient in the three millennia of history we know, is misunderstood by modern man, who does not know what a balanced social environment is and the good he could derive from it. Man himself may feel less need to improve his condition* (p. 50).

Also, the very presence of natural groups is a deterrent to the engendering of technical invention. According to Ellul (1964);

> *For primitive peoples, invention spreads in certain geographical areas within certain groups according to existing social bonds. Exterior diffusion, however, the crossing of a sociological frontier, is extremely difficult* (p. 50).

At the point that the propagation of every technique tends to be inspected by these social divisions, these obstacles vanished at the season of the French Revolution, in 1789. With the vanishing of religious and social taboos came the production of new religions, the assertion of philosophic materialism, and the concealment of the various hierarchies, regicide, and the battle against the pastorate. Accordingly, these variables acted effectively upon the prevalent cognizance and added to the breakdown of the faith in these taboos. At the same time, in parallel, a methodical crusade was pursued against all natural groups, under the appearance of a guard of the rights and privileges of the individual while, there was to be no freedom of groups, just that of the individual. In fact, revolutionary legislation advanced its disintegration; it had as of now been joggled by the philosophy and the fervors of the eighteenth century. In this sense, Ellul (1964) explains the atomization of society caused by the individual that remained as the sole sociological unit and argues that;

> *The atomization we have been discussing conferred on society the greatest possible plasticity-a decisive condition for technique* (p. 51).

Consequently, the separation of social groups caused the tremendous relocation of individuals toward the start of the nineteenth century and brought about the grouping of populace requested by modem technique. This was possible just when the individuals were deeply isolated and uprooted from their own domestic origins aimed to crowd them into the cities, to crush them into unfit lodgings and undesirable work environments; to make a radical new environment inside the structure of another

human condition by overlooking this new classification has been caused by industrial machines. According to Ellul (1964);

> *Such is the influence of social plasticity. Without it, no technical evolution is possible. For the individual in an atomized society, only the state was left: the state was the highest authority and it became omnipotent as well. The society produced was perfectly malleable and remarkably flexible from both the intellectual and the material points of view. The technical phenomenon had its most favorable environment since the beginning of history* (p. 52).

In this concept, on the one hand, Marx has addressed to the existence of industrial and scientific forces which no epoch of human history had ever suspected till nineteen century and, on the other hand, consequently, he refers to the symptoms of decay; and he points out that;

> *In our days everything seems pregnant with its contrary. Machinery, gifted with the wonderful power of shortening and fructifying human labor, we behold starving and overworking it*.

3.2.4 Characteristics of Modern Technology

Above all, now, the characteristics of modern technology including the indicators mentioned below, is considered by referring to Elull's classification.in his point of view, modern technology has these six discussable attributes;

- Rationality and Artificiality;
- Automatism of Technical Choice;
- Self-Augmentation;
- Monism;
- Technical Universalism;

- Autonomy of Technique.

Each of them has been deliberatively defined and introduced in following pages.

3.2.4.1 Rationality and Artificiality

According to Ellul (1964, pp. 78-79), there are two vital attributes of today's technological phenomenon which this research should not harp on as a result of their obviousness. These two, by the way, are the main ones which, as a rule, are underlined by other scholars. The first of these undeniable characteristics is rationality. In technology, whatever its aspect or the discipline in which it is applied, a rational procedure is available which has a tendency to present mechanics as a powerful influence for all that is unconstrained or irrational. Thus, rationality can be correctly exemplified in systematization, division of labor, formation of standards, generation of norms for production, and so forth, includes two unmistakable stages : in the first place, the utilization of 'discourse' in each operation; this causes the exclusion of spontaneity and individual imagination. Second, there is the reduction of the method to its only rational and logical measurement. In this concept, Ellul (1964) states that;

> *Every intervention of technique is, in effect, a reduction of facts, forces, phenomena, means, and instruments to the schema of logic* (p. 79).

The second evident characteristic for the technical phenomenon is artificiality. Technology is against nature. Art and craftsmanship, artifice, artificial, therefore, technology as art is the making of an artificial framework. In this regard, Ellul (1964) points out that;

> *This is not a matter of opinion. The means man has at his disposal as a function of technique are artificial means* (p. 79).

Consequently, the world that is being made by the accumulation of technological means is an artificial world and henceforth, drastically not quite the same as the natural world. Moreover, technological means crushes, wipes out, or subordinates the natural world, and does not permit this world to reestablish itself or even to go into an advantageous connection with it. The two universes obey diverse imperatives, different directives, and diverse laws which have nothing together in common. Following this, Ellul (1964) predicts that;

> *We are rapidly approaching the time when there will be no longer any natural environment at all* (p. 79).

It was just concise portrayals of these two surely obvious attributes of modern technology. Be that as it may, this research should dissect the others at more noteworthy length; which they are technical automatism, self-augmentation, monism, universalism, and autonomy.

3.2.4.2 Automatism of Technical Choice

The method which has been decided upon mathematical process of measurement and calculation is fulfilling expectations or needs from the rational point of view. In practical point of view, when the chosen method is obviously satisfies the maximum productivity and efficiency of all those hitherto employed or those in competition with it, therefore, the technological movement begins to be self-directing. This process is named as automatism of technology. In this concept, Ellul (1964) explains the automatism of technology and says;

> *There is no personal choice, in respect to magnitude, between, say, 3 and 4; 4 is greater than 3; this is a fact which has no personal reference. No one can change it or assert the contrary or personally escape it. Similarly, there is no choice between two technical methods. One of them asserts itself*

inescapably: its results are calculated, measured, obvious, and indisputable (p. 80).

Subsequently, technology by itself without indulgence or possible debate, -is '*ipso facto'* and-, chooses among the means to be hired. No longer, the human is the agent of choice in any sense, and consequently, no one says that human being is the agent of technological progress and that; it is he who selects in between feasible technological methods. Actually, human being neither is nor does anything of the sort and he is just a device for recording affects and outcomes obtained by diverse technological methods. Ellul (1964) acknowledges this argument as the first aspect of technological automatism and says that;

The choice between methods is no longer made according to human measure, but occurs as a mechanical process which nothing can prevent;

And he continues by accepting the situations;

Inside the technical circle, the choice among methods, mechanism, organizations, and formulas is carried out automatically. Man is stripped of his faculty of choice and he is satisfied. He accepts the situation when he sides with technique (Ellul, p. 82).

Furthermore, when we leave the technological area proper, we realize a whole ensemble of nontechnical means, in which, among the means, a kind of preliminary process of elimination is taking place. The diverse technological orders have invaded all domains to the point that they are everywhere in collision with modes of life which have been heretofore nontechnical. Human life as a whole is not inundated by technique. It has room for activities that are not rationally or systematically ordered.

But the collision between spontaneous activities and technique is catastrophic for the spontaneous activities. To demonstrate the superiority of technical activities to nontechnical ones, according to Ellul (1964);

> *Technical activity automatically eliminates every nontechnical activity or transforms it into technical activity* (p. 83).

In such an atmosphere, as mentioned, we as human being are in a period of our historical evolution in which whatever is not technological is being eliminated by technical activities automatically. Accordingly, Ellul (1964) concludes that;

> *The challenge to a country, an individual, or a system is solely a technical challenge. Only a technical force can be opposed to a technical force* (p. 84).

Briefly, the consequences of technological automatism can be mentioned as;

- Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense;
- Giving absolute value to technological progress, and technology;
- Automatically invading and extending technology to all spheres of human being life;
- Possibility of opposing to a technical force, can be done only with another technological force.

3.2.4.3 Self-Augmentation

At the present time, the technology has been got to such a point of its evolution that it is being transformed and also is progressing almost without decisive intervention of human being. By referring to enthusiasm of modern men about technology, Ellul (1964) argues that modern men;

> *Assured of its superiority, so immersed in the technical milieu, that without exception they are oriented toward technical progress. They all work at it, and in every profession or trade everyone seeks to introduce technical improvement. Essentially, technique progresses as a result of this common effort* (p. 85).

So, technological progress and common human effort arrive at the same thing. It means that it is true that technology sharply reduces the role of human invention and it is no longer the man of genius who discovers something. In such a manner, what is decisive is this anonymous accretion of conditions for the leap ahead. When all the conditions coincide, only negligible human intervention is necessary to generate important advances. But, the accretion of complex moment subtle elements, every one of the tending to idealize the gathering, is a great deal more unequivocal than the intercession of the person who amasses the new information, includes some component which changes the circumstance, and along these lines brings forth a machine or to some tremendous framework that will bear his name.

Furthermore, according to Ellul (1964, pp. 86-87), it is discernible that indistinguishable technological creations are delivered at the same time in numerous places. To the extent that science is tackling a more technological aspect, these revelations are made in all places in the meantime, resulted to a further indication that scientific discoveries are, truly, represented by technology.

In the case of more advanced places, because of employment of technology, the more material is required, whether in quantities of men, crude materials, or complexity of machines. A nation must be rich to endeavor technology to a most extreme. What's

more, when the nation can do this, strategy gives back a hundredfold increment in its wealth. This is another component in self-augmentation of modern technology. In this context, it seems that there is an automatic growth (that is, a development which is not ascertained, craved, or picked) of everything which concerns technology. This applies even to men. Measurably, the quantity of researchers and specialists has multiplied each decade for a century and a half. Evidently this is a self-generating process which means that technology engenders itself. In this case, at the point when another technological structure shows up, it makes conceivable and conditions various others. In addition, Ellul (1964, p. 88) regards to methods of approach and the techniques employed in which they prove have a general scope and he argues that the same could be argued that there is a self-argumentation of the areas of application as well. In this atmosphere, this automation totally alters the states of human work by what has been termed the substitution of the natural and the mental by the mechanical. It is sure that this will involve the same social emergency of unemployment as in the sectors.

Additionally, nothing contends that in this way technological activities won't again move in the direction of the universe of machines with reestablished power. All in all, it is the standard of the mix of techniques which causes self-augmentation. In this regard, according to Ellul (1964, p. 88), self-augmentation of technology can be figured in other two characteristic mentioned below;

- In a given human advancement, technological advancement is irreversible;
- Technological advancement tends to act, not as indicated by an arithmetic, but rather as per a geometric progression.

The last indicate to make in discussing about self-augmentation is that technology in its improvement, postures essentially technical issues which subsequently can be determined and resolved just by technology. The present level of technology brings on new advances, and these thus add to existing technological difficulties and technological issues, which request still further advances (1964, p. 92).

Briefly, the consequences of technological self-augmentation can be mentioned as;

- Technological progression almost without decisive intervention of human being;
- Importance of technological progression and only the necessity of negligible human intervention to generate important advances;
- Similar technological creations are delivered at the same time in numerous places;
- Interaction in between technological progression, human sources, raw materials and social health;
- Automatic growth of everything which concerns technology and self-generating process of technology;
- that technology in its improvement, postures essentially technical issues which subsequently can be determined and resolved just by technology;
- In a given human advancement, technological advancement is irreversible;
- Technological advancement tends to act, not as indicated by an arithmetic, but rather as per a geometric progression.

3.2.4.4 Monism

The technological phenomenon, grasping all the different techniques, frames an entirety. This monism of technology was at that point clear to us when we decided, on the premise of the evidence, that the technological phenomenon presents, all over the place and basically, the same attributes. It is futile to search for differentiations. So, according to Ellul (1964, p. 95), this identity is the essential sign of that thorough going unity which makes the technological phenomenon a solitary substance regardless of the great differing qualities of its appearances. As a culmination, it is difficult to break down either component.

Accordingly, the technological phenomenon cannot be separated so as to hold the great and reject the terrible. It has a mass which renders it monistic. Moreover, the necessities and the methods of action of every type of these technological structures join to frame an entire, every part supporting and strengthening the others. They constitute a co-ordinated phenomenon, no component of which can be detached from the others. It should be stated that the technological phenomenon displays similar characteristics itself everywhere.

Briefly, the consequences of technological monistic attributes can be mentioned as;

- The technological phenomenon presents, all over the place and basically, the same attributes. It is futile to search for differentiations;
- Technological phenomenon represents itself as a solitary substance regardless of the great differing qualities of its appearances, so it is difficult to break it down into its components in order to analyze it.

3.2.4.5 Technical Universalism

Technical universalism as one characteristic of the technical phenomenon can be studied under two angles, geographically and qualitatively.

From the geographical perspective, it is obvious to see that technology is constantly making ground for itself, nation by nation, and that its territory of activity is the entire world. In all nations, whatever their level of human advancement is, there is an inclination to apply the same technological strategies. Notwithstanding when the number of inhabitants in a given nation is not assimilated technologically in fact, it is all things considered ready to utilize the instruments which technology promotes. The general population of these nations does not have any need to be westernized. Technology, to be utilized, does not require an civilized man. Technology, whatever hand utilizes it, delivers its impact pretty much absolutely in propor-tion to the individual's pretty much aggregate ingestion in it (Ellul, 1964, p. 116). In this sense, in the light of geographical aligned globe based on technological universalism, Ellul (1964) argues that;

> *In the course of history there have always been different principles of civilization according to regions, nations, and continents. But today everything tends to align itself on technical principles. In the past, different civilizations took different paths; today all peoples follow the same road and the same impulse* (p. 117).

Technology has progressively domesticated all the components of civilization with regard to economic and intellectual activities. But in this ground, man himself is overwhelmed by technology and turns into its object. In this regard, Ellul writes;

> *The technique which takes man for its object thus becomes the center of society; this extraordinary event (which seems to surprise no one) is often designated as technical civilization* (p. 127).

Geologically and qualitatively, technology is universal in its appearances. It is dedicated, by nature and necessity, to the widespread. It couldn't be something else, it relies on a science itself dedicated to the all-inclusive, and subsequently, it is turning into the all-inclusive dialect comprehended by all men. Therefore, we require not dwell on the actuality, which everybody perceives, that science is universalized. Furthermore, this thus leads of necessity to the technological universalism which originates from it.

3.2.4.6 Autonomy of Technique

The complete division of the objective from the mechanism, the constraint of the problem to the means, and the refusal to interfere in any capacity with efficiency; this is unmistakably expressed by Ellul (1964, p. 133) and lies at the premise of technological autonomy. The autonomy of technology can be analyzed in alternate points of view on the premise of the diverse circles in connection to which it has this characteristic. Firstly, technology is autonomous regarding economic aspects and political issues. It has already seen that, at the present, neither financial nor political development conditions technological progress. Its progression is in like manner independent of the social circumstances. Technology evokes and conditions social, political, and eco-nomic change. It is the prime mover of all the rest, disregarding any appearance despite what might be expected and regardless of human pride, which imagines that man's philosophical hypotheses are as yet deciding impacts and man's political administrations decisive factors in technological development. In this sense, Ellul (1964) remarks that;

> *External necessities no longer determine technique. Technique's own internal necessities are determinative. Technique has become a reality in itself, self-sufficient, with its special laws and its own determinations* (pp. 133-134).

To go one step further, technological autonomy is clear with regard to morality and spiritual values. Technology endures no judgment from without and acknowledges no constraint. It is by virtue of technology instead of science that the principal framework has gotten to be set up. In this regard, the same phenomenon is obvious in yet another area in which technological autonomy asserts itself: the relations amongst technology and human being. As mentioned, in connection with technical self-augmentation, that technology seeks after its own course more independently of man. This implies man takes an interest less and less effectively in technological creation, which, by the programmed mix of earlier components, turns into a sort of fate. Human being is reduced to the level of a catalyst. Even better, he looks like a slug embedded into a slot machine: he begins the operation without taking part in it.

3.2.5 A Discontinuity by Lack of Common Denominator

By regarding to the characteristics of technology that explained, allows us to state with certainty that there is no shared denominator in between the modern technology and primitive one. In fact, today we are conversing and in connection with an absolutely distinctive technological phenomenon which clearly expresses different attributes from primitive technology. By giving account to Ellul (1964, p. 146), therefore, the individuals who claim to conclude from man's technological circumstance in past hundreds of years, his circumstance in this one demonstrates that they have grasped nothing of the technological phenomenon. These deductions demonstrate that all of their explanations are without reasoning foundation and every one of their analogies is astigmatic.

Now, it will be beneficial if we just point briefly the basic differences in between modern technology and primitive technology;

- Primitive technology was local, while modern technology is universal. In this sense, primitive technology had been developed and applied in a restricted geographical boundaries regarding to the local necessities in proportion with distinct place of use. Vice versa, modern technology is geographically and qualitatively universal and it spreads out itself all around the world and imposes itself to the societies;
- Primitive technology has simple mechanism while modern technology is complex. The presence of primitive technology is simply happened in traditional and not advanced societies, and the procedures of thought, its actions and outcomes are all simplified as it is in its essence. On the other hand, modern technology has turned to complexity in order to answer the several necessities of modern technological society;
- Primitive technology is manual while modern technology is mechanized. By considering the direct role of human being, primitive technology in its procedures of thought, its actions and outcomes can be identified, however, as much as modern technology is interfering with its mechanized process, the presence of human being in this process gets faded;
- Interaction with environment by primitive technology and being in contrast by modern technology: primitive technology has been basically resulted by necessities rooted in interaction man and environment. Consequently, primitive technology has interrelationship with environment. But modern technology gets the environment enrolled and considers it as a source of energy and benefits;

- Primitive technology has tried to have answer to each necessity in proportion with it, and subsequently, it ignored the mass production for unknown distinctions. On the other hand, modern technology pervasively has mass production processes regardless to consuming distinctions;
- Primitive technology in comparison modern technology with regard to its scientific, technical and economic capacities has restricted variation range;
- According to limitations of primitive technology, it was aimed to serve the societies regarding to their necessities, however, modern technology by having characteristic such as increasing competition and consumerism, searches for more consumption and necessities;
- In primitive not advanced societies, primitive technology, its procedures and instruments were determined by religions or kind of worldview and therefore, their guiding and controlling ideologies and frameworks. On the other hand, in modern technological societies, there is no any sacred, secret or taboo for technological phenomenon. Technological phenomenon is de-sacred.

In such an atmosphere has been emerged by modern technology since initial traces of modern technology almost in eighteenth century and industrial revolution, in twentieth century, Martin Heidegger as several philosophers and authors in the field of humanities has paid attention on Technology (Herf, 1984). Indeed, Heidegger lived in period of massive technological change which broadly transformed the Europe and the whole world; he also was witness of rapid growth of urbanization, hasty industrialization, world wars and explosion of nuclear bombs. Therefore he was trying to apprehend the correlation in between modern technology and modern

human being (Ahmadi, 2002). Therefore, Heidegger began to question this technological phenomenon and its essence in a phenomenological way.

3.3 Heidegger's Diagnosis of Instrumental-Anthropological Perspective on Technology

Webster's Third New International Dictionary defines technology as;

> *The totality of means employed by a people to provide itself with the objects of material culture* (Webster & Babcock, 1961).

The substantivist philosophical approaches towards technology drew broadly consideration far from the viable inquiry of what technology does to the hermeneutic inquiry of what it actually implies. The topic of significance has gotten to be characterizing for philosophy of technology as an easily distinguishable branch of humanistic reflection. In this field as mentioned before, among the few philosophers who have seriously taken technology into consideration, apparently Martin Heidegger is a pioneer. According to Idhe (2010);

> *He was among the first to raise technology to a central concern for philosophy, and he was among the first to see in it a genuine ontological issue* (p. 28).

Similarly, Feenberg (1999) says that;

> *Heidegger is no doubt the most influential philosopher of technology in this century* (p. 183).

Consequently in this research, by referring to Heidegger's analysis and method, it is aimed to bare the phenomenon of technology through its own horizon and its limits,

but in relationship with human existence. As Martin Heidegger defines, technology "is a means and a human activity, can therefore be called the instrumental and anthropological definition of technology" (Heidegger, 1977, p. 5). By regarding to the given definition by him, two statements can be extracted in order to explain the principal feature of the concept. Firstly the process of positing the ends and procuring and utilizing the means to them, has been considered and in the following, he points out that the technology is a human activity.

In this sense, he argues that, "the two definitions of technology belong together", and he continues, "the manufacture and utilization of equipment, tools, and machines, the manufactured and used things themselves, and the needs and ends that they serve, all belong to what technology is. The whole complex of these contrivances is technology. Technology itself is a contrivance, or, in Latin, an *instrumentum*" (Heidegger, 1977, pp. 4-5). As a result, technology in Instrumental-Anthropological account can therefore be defined as a man-made means to an end set up by man. Or inspired by Heidegger, as Feenberg (2002)clearly says;

> *It is based on the commonsense idea that technologies are 'tools' standing ready to serve the purposes of their users* (p. 5).

Heidegger (1977) emphasizes on the accuracy of instrumental definition of technology and he says;

> *It is in obvious conformity with what we are envisioning when we talk about technology. The instrumental definition of technology is indeed so uncannily correct that it even holds for modern technology, of which, in other respects, we maintain with some justification that it is, in contrast to the older*

> *handwork technology, something completely different and therefore new* (p. 5).

To clarify Heidegger with his intention of Instrumental-Anthropological definition of technology, Idhe (2010) explains that;

> *Such a definition implies that technology is merely an invention of a 'subject' and functions as a mere neutral instrument. The definition, Heidegger characterizes, is 'correct'. But then, in a move directly reflective of his earlier analysis of logical or propositional truth in relation to truth as disclosure, he notes that what is correct is not yet 'true'. Correctness turns out to be ''true'' in a very limited sense, true with respect to some aspect or part of a larger whole. The whole, however, is more than that which contains parts; it is ultimately the set of conditions of possibility that found the parts* (p. 29).

He continues with defense of phenomenological form of the argument which is applied by Heidegger and argues;

> *Correctness is not in itself untrue but is limited or inadequate, and it may be characterized as a partial truth, in which case it now covers over the larger or more basic truth that founds it* (Ihde, 2010, p. 30).

Couple with, Instrumental-Anthropological perspective of technology is incorporated of arguments which portrays technology as neutral phenomenon, and technological artefacts as neutral tools. This philosophical perspective perceives technology as not inherently good or bad, but a mean or instrument standing ready to serve the purposes and ends desired by the individuals or institution in control. In this concept,

Feenberg remarks that this perspective puts forward 'widely accepted view of technology' and together with this, also technology is assumed neutral without evaluative content (Feenberg, 2002, pp. 5-6). But actually, what does the 'Neutrality' of the instrumental perspective on technology mean?

As Feenberg explains (2002), the concept of 'Neutrality' consists of four basic points which are discussed below in order, and they assists to investigate profoundly this perspective in modern technology:

- Technology as pure instrumentality is unconcerned and mediocre to the diversity of ends that it is employed to serve;
- Technology represents itself indifferent with respect to politics. More dominantly, in modern world, with respect to socialism and capitalism. It means that technology is not inhibited by anything –only by its cost-, to be transferred to new social contexts;
- Maintenance of cognitive status of technology in every conceivable social context, because of technology's 'rational character' and universality of the truth that it comprises. It means that geographically, technology is not inhibited and therefore, what can work in one social context, can be supposed to work as well in another one;
- In any and every context, the attitude of technology is essentially under the very same principle of 'efficiency'. It means that the same standards of measurement can be exerted to it in variable settings (pp. 5-6).

By regarding to this issue of instrumental conception on technology, Heidegger (1977) says that;

> *We are delivered over to it in the worst possible way when we regard it as something neutral; ...* (p. 4).

Relatively by referring to the norm of efficient ordering of technology, dominantly Jacques Ellul (1964) defines his central concept, *la technique*, which closely corresponds to instrumental conception of technology as now used in everyday routines. He says;

> *In our technological society, technique is the totality of methods rationally arrived at and having absolute efficiency (for a given stage of development) in every field of human activity. Its characteristics are new; the technique of the present has no common measure with that of the past* (p. xxv).

In this account, a compromise has to take place in instrumentalist approach, because technology is unable to optimize two variables, where efficiency is considered to be as one of the variables. As consequence, truism of systems can be appeared because of inability of optimization while there is a value for achievement of the other considered variables such as environmental, ethical, or religious aims. Subsequently, that price has to be paid by reducing efficiency. In fact, instrumentalist understanding of technology has been appeared to regard to the tensions among efficiency, ideology and tradition that were produced by sociotechnical change (Feenberg, 2002, p. 6). Accordingly, this assumption can influence the architecture and architectural themes –architectural variables- such as meaning. Heidegger (1977) argues that;

> *Instrumental conception of technology conditions every attempt to bring man into the right relation to technology. Everything depends on our manipulating technology in the proper manner as a means. We will, as we say, "get" technology "spiritually in hand." We will master it. The will to mastery*

becomes all the more urgent the more technology threatens to slip from human control (p. 5).

Thus, it seems that instrumental understanding has created an artificial gap in between technology and humans -as technology's users-, in which there is an image of a unified human subject ruling over and benefiting from technology as a mere autonomous tool (Winner, 1978, pp. 13-43). In what Feenberg entitles 'a moment of decontextualization', we are permitted to see technology separated from ourselves. In addition, contrariwise, we are abstracted from the complex social relations we take part (Feenberg, 2002, p. 168). Perhaps, we can claim that this conception of technology which assumes technology as a plastic, without content, being involuntary and neutral phenomena, provides consequently a ground for technology to be pervasive and overbearing in all aspects of human world .In this sense, Instrumental-Anthropological perspective of technology as a research problem, prepares a framework for such research.

3.4 Issues of Instrumentalization of Technology

In determinist and instrumentalist conceptions of technology, efficiency serves as the exceptional rule of choice amongst fruitful and fizzled technological activities. On these terms, technology seems to borrow the virtues for the most part ascribed to scientific rationality. Philosophy of technology demystifies these cases to the need and universality of technological choices. (Feenberg, 2005, p. 51).

As discussed, actually instrumental perspective expresses the most generally acknowledged perspective of technological phenomenon. In fact, it depends on the rational thought that technologies are tools standing prepared to fill the needs of their

users. But it should be mentioned that as Heidegger (1977, p. 4) pointed out, from this essential view towards the essence of technology, has nothing to do with technological. In this regards, as mentioned, technology is esteemed as a neutral phenomenon without evaluative substance of its own. This instrumentalist approach put exchange-offs in a particular position at the focal point of the research in this step. By considering that there is no capability for optimizing mentioned variables, an axiom of economic aspects, seems to apply to technology where efficiency is considered as one such variable. Moreover, there is a cost for the accomplishment of different variables, for example, natural, moral, or religious objectives, and that cost must be paid in diminished efficiency. In this regard, the technological phenomenon can be restricted by non-technological qualities, yet not changed by them.

Now, the holistic technological study in philosophical ground that this research proposes is relied on upon an analytic refinement between what Feenberg (1999, pp. 202-203) names the primary and secondary instrumentalization. The issues of technological instrumentalization have been briefly explained below with accordance to mentioned classification.

Table 5 : Issues of Technological Instrumentalization

Instrumentalization	Primary Instrumentalization (Functionalization)	Decontextualization
		Reductionism
		Autonomization
		Positioning
	Secondary Instrumentalization (Realization)	Systematization
		Mediation
		Vocation
		Initiative

3.4.1 Issues of Primary Instrumentalization: Functionalization

The primary instrumentalization is the technological introduction toward the fact that Heidegger (1977, p. 11) recognized as the technological mode of revealing. However, as we have seen, the technological includes an orientation as well as action in the world, and that action is socially adapted in complete. Therefore, the primary instrumentalization of technology is more or less focused on essence of technology in the base of phenomenological orientation. On this account, as Feenberg (1999, p. 202) remarks, the essence of technology has not only one but rather two viewpoints, in which the first view clarifies the functional constitution of technological subject and object. Regard to this, he has named it primary instrumentalization. In this concept, essentialist approach provides understanding just into the primary instrumentalization by which functions are isolated from the continuum of daily life and subjects situated to connect them. Moreover, primary instrumentalization portrays technological relevancies in all technological advanced societies, in spite of the fact that its affirmation, scope of use and importance usually differs.

To go further into discussion, it should be stated that primary instrumentalization comprises of four reifying importance of technological practice. The initial two relate generally to critical parts of Heidegger's thought of enframing. Together, they incorporate the types of objectification and subjectivation attached with functional world connection.

In categorization of primary issues of instrumentalization, issues of decontextualization and reductionism correspond with the significant aspects of Heideggerian notion of enframing, and furthermore, the latter two issues explain the

form of action implied in Habermas's media theory. Therefore, the focus of the study is more on the first two of primary issues.

3.4.1.1 Decontextualization

To reconstruct natural objects as technological objects, they have to be de-worlded, artificially isolated from the context in which they are initially observed in order to be coordinated with a technological framework. The detachment of the item opens it to a utilitarian assessment. In this respect, Feenberg (1999) gives an example and says;

> *The tree conceived as lumber, and eventually cut down, stripped of bark and chopped into boards, is encountered through its usefulness rather than in all its manifold interconnections with its environment and the other species with which it normally coexists* (p. 203).

Consequently, the disconnected object uncovers itself as containing technological patterns, possibilities in human activity frameworks which are made available by decontextualization. Therefore, by giving some qualities to the natural object which has been isolated, it is expected to reveal it as a technological property. Together with, the figure that the qualities may have played in nature is crushed all the while in this process. And subsequently, nature is divided into odds and pieces that reveal as technologically beneficial after of being preoccupied from every single particular context.

3.4.1.2 Reductionism

Reductionism alludes to the procedure in which the de-worlded natural objects are streamlined, stripped of technologically futile qualities, and subsequently, are reduced to those aspects through which they can be enlisted in technological structure. These are the qualities of essential significance to the technological

subject, the qualities which can be perceived as crucial to the achievement of a technological plan. Furthermore, they are named by Feenberg (1999, p. 203) as primary qualities; which being comprehended that their priority is in respect to a subject's system. Primary qualities may incorporate anything about natural objects that expresses an affordance, for instance, weight, size, shape, sharpness or softness, color, etc.

At this point, secondary qualities are what remain, including those measurements of the natural object that may have been most important over the span of its pre-technological background. The auxiliary characteristics of the natural object include its potential for self-development. In this respect, Feenberg (1999) gives an example of tree as a natural object again and says;

> *The tree trunk, reduced to its primary quality of roundness in becoming a wheel, loses its secondary qualities as a habitat, a source of shade, and a living, growing member of its species* (p. 204).

As it can be resulted, the Heideggerian notion of enframing is the process of reducing in the state of objects as they actually exist, to the abstract essential characteristics via formalization and evaluation.

3.4.1.3 Autonomization

The subject of technological confines itself as much as could be possible from the impacts of its activity on its object. However, the actor and the object in mechanics have a place with the same framework, thus the correspondence of their collaborations, but in contrast, technological action autonomizes the subject. More importantly, this is achieved by interrupting on the reaction between the object and the actor. In the obvious special case to Newton's law, the technological subject

vastly affects the world, yet the world has just a little profit sway for the subject. In fact, the connection in between of subject of the technological action and the object is absolutely functional (Feenberg, 1999, p. 204).

3.4.1.4 Positioning

Technological action adjusts its objects via their laws. Therefore, there is a detachment with regard to those laws, surprisingly, even in the most vicious technological intervention. In this concept, the subject's activity comprises not in changing the law of its objects, but rather in utilizing that law to benefit. Indeed, by situating itself deliberately as for its objects, the subject turns their characteristic properties to account (Feenberg, 1999, p. 204). Therefore, the technological action cannot be controlled, only anticipated and used.

3.4.2 Issues of Secondary Instrumentalization: Realization

The primary instrumentalization reveals itself in the skeletal procedure of fundamental technological connection. In fact, much more is essential for that connection to yield a real framework or technological device: strategy must be coordinated with the natural, technological, and social contexts that bolster its functional mechanism. In this procedure, the technological action revolves back on itself and its actors as it is acknowledged accurately. Subsequently, it reconsiders a portion of the measurements of contextual relatedness and self-advancement from which abstraction was initially made in setting up the technological connection. Accordingly, realization makes up for a portion of the reifying impacts of the primary instrumentalization. In this regard, the underdetermination of technological progression leaves space for social interests and values to take an interest in this procedure. As decontextualized components are consolidated, these interests and values dole out capacities, arrange decisions and safeguard compatibility amongst

technology and the society. In this manner, the essence of technology incorporates a secondary level that works with measurements of reality while the primary instrumentalization abstracts. In this respect, Feenberg (2002) remarks that;

> *Secondary Instrumentalization lies at the intersection of technical action and the other action systems with which technique is inextricably linked insofar as it is a social enterprise* (p. 177).

Consequently, the technology includes an orientation as well as activity in the world, and that activity is socially molded in complete. Subsequently, the necessity for a hypothesis of secondary instrumentalization is apparent through which the skeletal primary instrumentalization tackles body and weight in real technological phenomenon and frameworks in a social connection. To sum up, therefore, secondary instrumentalization it literally concentrates on the acknowledgment of the constituted objects and subjects in real technological systems and structures. This level of technological instrumentalization includes the issues mentioned below.

3.4.2.1 Systematization

In order to work as a real technological device, confined, decontextualized technological objects must be consolidated with each other and re-implanted in the natural environment. According to Latour (Latour, 1992, pp. 225–258), by referring to the term of ‘enrolling’ objects in an interconnected system, systematization means entirely the procedure of creating the combinations and also connections. the procedure of technological systematization is vital to designing long in the extreme and firmly coupled systems of modern technological social orders yet assumes a lesser part in traditional social orders there. In traditional social orders, the technological phenomenon might be better adjusted to the natural and social environment yet broadly related functionally. Indeed, the excessive role of

systematization in advanced social orders is established in the accomplishment of coordination media, money, power and technology, and the long-scale associations they make conceivable (Feenberg, 1999, pp. 205-206).

3.4.2.2 Mediation

Moral and aesthetic mediation provide the simply rearranged technological object with the new secondary qualities that consistently implant it in its new social setting. By considering the various ritual considerations that produce an aesthetically and ethically expressive technological object, Feenberg (1999) exemplifies;

> *The ornamentation of artifacts and their investment with ethical meaning are integral to production in all traditional cultures* (p. 206).

In this concept, the chalice of Heidegger can be also exemplified as an aesthetically and ethically expressive object.

By difference, generation and feel are incompletely separated in modern social orders nowadays. The objects are firstly generated, and afterward, externally styled and bundled for distribution. The social insertion of the modern industrial shows up as an idea in retrospect. The ethical limitations are also toppled in the breakdown of religious and craft traditions. These constraints are in the end epitomized in adjusted design which gathers contemplations of efficiency with moral values. A comparative thought shows up in the aesthetic of the industrial design. In this way, mediations are remained as essential, even, with regard to the controversial aspect of the technological procedure in modern social orders in the present period of time (Feenberg, 1999). In this regard, crises in the environment have can be considered as a field of interest in the ethical and aesthetical limitations of technological power.

3.4.2.3 Vocation

The technological subject becomes noticeable self-ruling or autonomous just seeing that its activities are considered in disengagement from its life procedure. In general, the progression of its acts sum up to a specialty, a vocation, a lifestyle. In such a concept, the subject is as profoundly got involved with as the object, however in an alternate register. Subsequently, the actor is transformed by its acts. In this sense, the human properties of the technological subject characterize it at the most profound levels, physically, as an individual, and as an individual from a group of individuals occupied with comparative activities (Feenberg, 1999, p. 206). Indeed, the terminology of vocation can represent utterly the reverse impact of technological tools on their users. However, in not advanced societies and in some modern ones, the idea of vocation or way is not connected with a specific sort of work, but rather in most advanced social orders it is reversed.

3.4.2.4 Initiative

Ultimately, vital control of the specialist and consumer through positioning is to some covered area retaliated by different types of strategic initiative with respect to the individuals submitted to technological control. In this respect, prior to the ascent of capitalist administration, the joint action was frequently managed by tradition or patrilineal control, and the employments of the couple of accessible technological products so broadly recommended that the line between producer strategies and user apportionments was regularly obscured. In fact, it is rooted in free enterprise conception of capitalism that has prompted the sharp split amongst positioning and initiative, strategy and tactics. A specific edge of operation has a place with subordinated positions in the capitalist based technological hierarchy. That edge is

able bolster responding collaboration in the coordination of the exertion and user apportionments of technological products and structures (Feenberg, 1999, p. 207).

To summarize, by referring to the primary and secondary issues of instrumentalization based on Feenberg's notion, four reifying snippets of technological practice can be briefly introduced, that they have consistently described the object relationship in the little technological enclaves of social life however that embrace interestingly social orders in the holistic conception for the first time in the light of capitalism.

- ***Decontextualization and Systematization:*** the separation of the technological object from its indispensable context, and a relating systematization through which the decontextualized technological objects are associated with each other, with users, and natural environment to shape technological tools and structures;
- ***Reductionism and Mediation:*** the detachment of primary from secondary qualities, which demonstrates the lessening of natural objects to their valuable and useful angles, and a relating mediation of technological objects by aesthetic and ethical values that are formed into their configuration and design;
- ***Autonomization and Vocation:*** the detachment of subject from object, which introduces the insurance of the autonomized technological actor from the quick outcomes of its actions, and a relating vocational speculation of the doer who is formed as an individual with an occupation by the technological actions in which he or she involves in;

- ***Positioning and Initiative:*** the subject arranges or positions itself deliberately to explore among its produced objects and control them, and a relating circle of initiative in which those technological objects, in fact, are subordinated individuals, specialists and the ones who consume the technological products, and satisfy a specific tactical free process created by technology.

3.5 Summary of the Chapter

In this chapter, at the beginning, the new development of technology emerged from transformation of scientific knowledge into technology, the fruition of a long technical experience, population expansion, the suitability of economic environment, the plasticity of social milieu, the appearance of a clear technical intention, has been concerned in philosophical ground and then, in architectural discipline. Secondly, by identifying the discontinuity between historical epoch and contemporary, the necessity of having a research on different technological cultures and therefore, technological societies has been deeply explained by referring mostly to the critical thinker Jacques Ellul (1912-1994). Furthermore, by focusing on the characteristic of primitive technology, factors of formation of modern technological society after 18^{th} century and characteristic of modern technology, the necessity of study on emerging a discontinuity by lack of common denominator in between two types of technology has been introduced regarding to the differences.

By following, referred to the definition of instrumental-anthropological technology given by phenomenologist Martin Heidegger (1889-1976), has been dominantly sketched and felt into awareness of three major perspectives on concerning modern technology; including the instrumental, critical and substantive perspectives. In this regard, by referring to classification introduced by philosopher of technology

Andrew Feenberg (1943-Present) who is inspired mostly by phenomenological notions of Heidegger, only the instrumental perspective has been broadly investigated in order to explore the issues emerged by the phenomenon of technological instrumentalization. In this context, in determinist and instrumentalist conceptions of technology, efficiency serves as the exceptional rule of choice amongst fruitful and fizzled technological activities. On these terms, technology seems to borrow the virtues for the most part ascribed to scientific rationality. Philosophy of technology demystifies these cases to the need and universality of technological choices. Subsequently, the issues of instrumentalization are briefly discussed in order to set up the research based on them.

The instrumentalists are regularly related with strains of thought that appreciation human autonomy in matters of technology, to a limited extent since technology itself is seen to be neutral in its effect on human undertakings, and to a limited extent in view of the prominence upon human willpower to choose whether to embrace technologies. In contrast to instrumental perspectives, substantive perspectives stress the routes in which technological frameworks or structure can substantively affect individual and community interests that may vary from their proposed impact. Subsequently, in following chapter, the Heideggerian substantive perspective of technology will be introduced and discussed.

Chapter 4

A SUBSTANTIVE PERSPECTIVE TOWARDS THE PROBLEM OF TECHNOLOGY

4.1 Alternative Perspective of Technology in Philosophy

In the past chapter, as it is seen, some background on various perspectives on the relationship between human autonomy and technology has been outlined. In this sense, technology thinkers generally separated into two gatherings: instrumental and substantive theorists. As it was discussed, instrumental speculations (or perspectives) tend to regard the technological phenomenon as a neutral tool without looking at its more extensive social, social and political effects. The instrumentalists are regularly related with strains of thought that appreciation human autonomy in matters of technology, to a limited extent since technology itself is seen to be neutral in its effect on human undertakings, and to a limited extent in view of the prominence upon human willpower to choose whether to embrace technologies.

In this concept, the Ancient Greek poet Sophocles cautioned us that we will turn out to be progressively dependent to the artificial world that we build to release us from our limitations in the physical environment, and subsequently, to shield us from 'the evils' of the natural world. In fact, Sophocles deplored about the affliction of the human condition, existing in a cosmic order that is not interested in human enduring, for which *techne* (artifice) is the means to get rid of suffering by conquering Nature through agriculture, medicine, mechanics and architecture (Rogers, 2008, pp. 38-71).

Accordingly, this permits people to live easily in urban areas, creating legislative issues and alternate expressions, however, at last, and humanity will get to be ruled by its reliance upon artifice, which perpetually makes and destroys, as it drives individuals to enhance an inhuman world that is beyond human willpower to control.

In contrast to instrumental perspectives, substantive perspectives stress the routes in which technological frameworks or structure can substantively affect individual and community interests that may vary from their proposed impact. In this sense, substantive scholars some of the time underline how technological structure can overcome human willpower. With regard to this, it is the major concern with the substantive effect of modern technological phenomenon on human autonomy and the human condition that has been a repeating topic in the accusing evaluates of "mass society" offered by numerous twentieth century thinkers and social scholars such as Heidegger (1977), Jonas (1984; 2004), Arendt (1958; 1990), Mumford (1970), Fromm (2010), Gadamer (1977), Benjamin (2008), and Ellul (1964). As cited by Rogers (2008, p. 38), Mitcham (1994) has termed this as ‘the humanist tradition’ of the philosophy of technology. Moreover, Weber contended that, in a progressed technological society, political choices are compelled and coordinated by technocratic frameworks of estimation, evaluation, and control. Despite the fact that Weber considered sciences to be neutral, as in they are not able to let us know what to do or how we ought to live, he contended that the advancement of modern science has progressively constrained our liberation to seek after alternative courses of action (Weber, 1958; Rogers, 2008, p. 38).

As it discussed above about this trend, regardless of the judicious request of instrumental perspective, a minority view prevents the neutrality from modern

technology. Substantive perspective, best known through the works of Jacques Ellul and Martin Heidegger, contends that technology constitutes another social framework that rebuilds the whole social world as an object of control (Winner, 1978; Feenberg, 1999). This framework is portrayed by a wide-ranging dynamic that at last surpasses each pre-technological enclave and forms the entire of social life. Hence, total instrumentalization is a predetermination from which there is no break other than retreat. in this regard, just an arrival to convention or straightforwardness offers an alternative perspective towards the overwhelming force of progress (Feenberg, 2002, p. 7). Similarly cynical, Ellul makes that connection more cleared, contending that the technological phenomenon has turned into the characterizing all present modern social orders paying little respect to the political belief system. Accordingly, the technology by its juggernaut of progress, as Ellul affirms, has ended up with its autonomous attribute (Ellul, 1964, p. 14). In this regard, Heidegger concurs that technology is steadily surpassing us. We are locked in, as he asserts, in the transformation of the whole world, including ourselves, into field of standing-reserve, crude materials to be prepared in technological procedures (Heidegger, 1977, p. 17). In this ground, actually, Heidegger attests that the technological reorganization of modern social orders is established in a skeptical will to power and control, a corruption of man and *being* to the level of unimportant objects (Feenberg, 2002, p. 7). This prophetically catastrophic vision is frequently released for crediting foolish, semi supernatural forces to technology.

In this concept, the substantive perspective towards the problem of technology endeavors to make us mindful of the mediation of the development of a progress by a standard of efficiency essential for modernity and alien to tradition, or rather, its cultural character. The issue is not that machines have assumed control, but rather

that in utilizing them we make numerous unwitting responsibilities. Modern technology is not just a means but rather has turned into an environment and a lifestyle. This is its substantive effect (Borgmann, 1987, p. 240).

In fact, after Second World War, emerged technological determinism endlessly swept the humanities and social sciences. Determinism raised both optimists and pessimists with a crucial ground of modernity as an integrated phenomenon. In this ground, substantive perspectives towards technology endeavor to clarify how truly developed and structured technologies severely restrict the scope and coordinate human autonomy- choices and practices-, while additionally dismissing technological determinism, which holds that society is the result of technological progression and the direction of this advancement is represented by chronicled or natural law (Rogers, 2008, pp. 40-41). According to Heidegger (1977);

> *The closer we come to the danger, the more brightly do the ways into the saving power begin to shine and the more questioning we become. For questioning is the piety of thought* (p. 35).

'Question Concerning Technology' (Heidegger, 1977) as one of the most important and widely known article that Heidegger has written in the late period of his philosophical developments. Indeed, Heidegger was one of the first philosophers that have taken seriously the issues of technology and subsequently, he has transformed the discussions on technology into ontological study and substantively into philosophical research in mid of last century. At this time, as it mentioned above, there is no doubt that Martin Heidegger is the most persuasive philosopher in the last century. However, he has many philosophical themes besides, but it is self-evident that his discourses on *being* have been culminated ontologically in technological

enframing. His aim was to reveal philosophically the relevant facts of the modern world, in order to furbish the power of reflection for our time. Truth be told, the project of transformation was elaborated in the midst of the vast technological revolution that was replaced the rural and religious roots of old European social settings, into a mass urban industrial ordering based on science and technology. Heidegger was intensely informed about this rapid transformation which was the main theme of philosophical debates in the Germany and Europe of the 1920s and 1930s (Feenberg, 1999, p. 183). In this sense, regarding Heidegger's history of *being*, the modern 'revealing' is one-sided by an inclination to assume each object as a potential crude material for technological activity. Objects enter our experience just in so far as we notice their efficiency in the technological framework (Feenberg, 2005).

To be more clarified, as it mentioned somehow, Heidegger's *Question Concerning Technology* (1977), attempts to reveal the essence of technology as a way of *being*. In this sense, as it can be comprehended, Heidegger does not perversely inclined to disagree with technology; however he does not frankly prescribe any remedy for it and he just seeks it within the essence of technology.

Now, it has to be stated that two of Heidegger's later articles, *The Question Concerning Technology* (1977) and *The Turning* (1977), deciphered in conjunction with each other, encapsulate the essence of his philosophy of technology. Heidegger proposed both attempts to serve as phenomenological portrayals of the way *Dasein* comports itself towards technology. As phenomenological essays relating to Heidegger's comprehension of technology, both are intended to be only descriptive and ought not be taken as prescriptions that encourage us to act in somehow. In this

chapter, his substantive conception on technology is considered as a reaction to the issues emerged in instrumental-anthropological perspective aimed to introduce a philosophical foundation for this study.

4.2 Heidegger's Criticism on Instrumental-Anthropological Perspective: The Correct but Subjective

Regardless of the division amongst technology and the technological, Heidegger concedes that there is as yet something which is correct about the traditional understanding that has been attributed to technology. While we discuss technology, technology envisions evidently itself in conformity with the definition of instrumental perspective (Fig.27). As Heidegger (1977) says;

> *The instrumental definition of technology is indeed so uncannily correct that it even holds for modern technology* (p. 5).

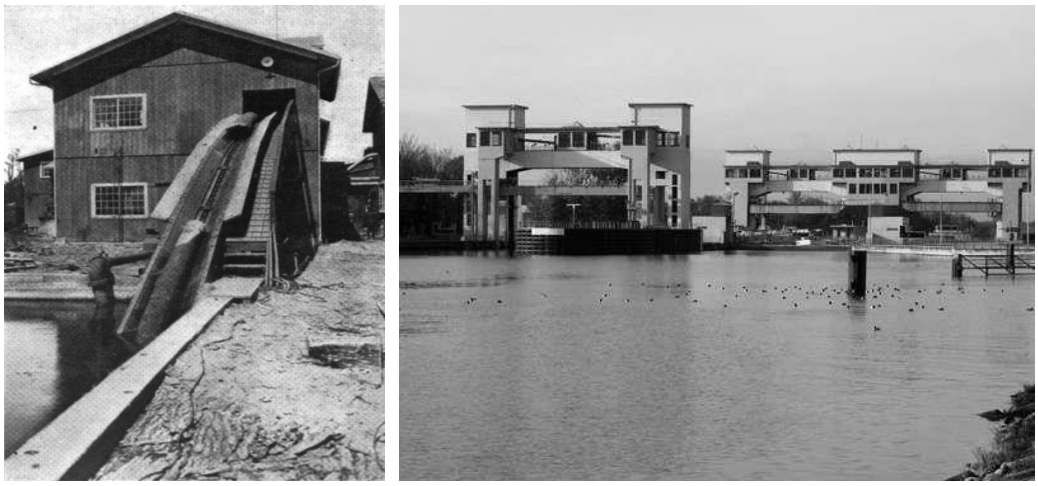


Figure 27 : Instrumental Conception (means to an end) in Obvious Conformity with both Primitive and Modern Technology: in the case of a Sawmill (Commons, 1920) and a hydroelectric plant (Riverama, 2012).

Consequently, by considering the modern technology as a means to an end, so, the instrumental conception can be assumed that it conditions each endeavor to convey man into the right connection to technology. Therefore, everything is depended on

that technology as means should be manipulated in appropriate way in order to make human being capable to overcome the technology. In this sense, Heidegger (1977) remarks that;

> *The will to mastery becomes all the more urgent the more technology threatens to slip from human control* (p. 5).

At the turning point of this discussion, by supposing the technology not merely as means, the will to overcome the technology, and accordingly, the instrumental conception of technology as a correct definition will be doubted. According to Heidegger (1977);

> *Yet we said, did we not, that the instrumental definition of technology is correct? To be sure. The correct always fixes upon something pertinent in whatever is under consideration. However, in order to be correct, this fixing by no means needs to uncover the thing in question in its essence. Only at the point where such an uncovering happens does the true come to pass* (pp. 5-6).

Accordance with, therefore, the merely correct does not yet represent the true. In this regard, just the true carries us into a free association with that which concerns us from out of its essence. In order to comprehend what this kind of free association with modern technology involves, we should in the first place comprehend the refinement amongst technology and the technological. Heidegger keeps up that the essence of technology is not reducible to the technological. Subsequently, Heidegger (1977) points out that;

> *The correct instrumental definition of technology still does not show us technology's essence. In order that we may arrive at this, or at least come close to it, we must seek the true by way of the correct. We must ask: What is*

> *the instrumental itself? Within what do such things as means and end belong?* (p. 6).

Correctness ends up being true in an extremely constrained sense, true with regard to some perspective or part of a larger whole. The whole, be that as it may, is more than that which holds parts within; it is eventually the arrangement of states of possibility that found the parts (Ihde, 2010, p. 30). Regard to this conception, Godzinski (2005) remarks that;

> *What makes the standard or correct definition of technology fundamentally deficient with respect to our own epoch rests with the fact it stays within the mode of 'presencing' and does not get to presencing itself—that is, Being as epochally given* (p. 3).

The phenomenological form of the Heidegger's contention is that accuracy of Instrumental-Anthropological conception of technology is not in itself untrue, but rather is restricted and deficient. What's more, it might be described as a partial truth, in which case it now covers over the bigger or more essential truth that discovered it. Therefore, it turns out to be practically untrue by concealing its origin. Furthermore, it is just by understanding the whole that establishes correctness that it can be seen as partial. Consequently, what is included in taking correctness for truth resembles a misrepresentation of taking a part for the whole. In any case, it is likewise more than that in that cognizance of the whole is a vital condition for perceiving what a part is. So, by regarding to the Heidegger's argument, Ihde (2010) says;

> *Anthropological-Instrumental definition of technology is functionally ontic, correct but partial, limited to a subjectivistic set of conditions* (p. 31).

By pointing that Heidegger is very explicit about this reductionist process taken by instrumental perspective, Godzinski (2005) writes that;

> *According to Heidegger, technology is distinct from what we do with tools, instruments, equipment, or the way of thinking about those things. Likewise, modern technology is not reducible to technological artifacts, devices, or the techniques that produce those things* (p. 3).

In addition, a comparable theme is taken up and inspected by Heidegger in *What is Called Thinking?* (Heidegger, 1968). Inside this content, by referring to Nietzsche's overman, Heidegger points out that that Nietzsche's overman speaks to the epitome of unalloyed technological being, seeing that the overman's will is a will that endeavors to overwhelm and to overcome to anything that is other (Heidegger, 1968, pp. 57-87). In fact, Heidegger comprehends that the overman is not an unusual phenomenon in the modern technological age. Each one of the individuals who live under the influence of modern technology must meet this reality. To emphasize, the main thing we have left inside the fringe of the age of modern technology, is simply technological relationships.

Regardless of this cynical tone, Heidegger trusts that we have to comprehend the *correct* or standard meaning of technology before we can get a handle on the *true* meaning of technology. Before we advance toward the true meaning of the technology, nonetheless, Heidegger says that we should comprehend modern technology from an alternate point of view that is not constituted by instrumental-anthropological conception of technology. In this sense, therefore, modern technology presents itself as a phenomenon having two sharply contrasting aspects (Janus-faced). Accordingly, one the one hand, Heidegger sees modern technology as

a challenging. Therefore, as a challenging, modern technology puts to nature the preposterous interest that it supply energy that can be extricated and keep in reserve in that capacity (Heidegger, 1977, p. 14). On the other hand, Heidegger additionally figures out the modern technology as a type of uncovering or revealing. Correspondingly, through the process of revealing, modern technology tends to unbolt, change, store and circulate the assets that nature must bring to the table. In the other word, modern technology has a tendency to deal with nature in a certain way as standing-store [*Bestand*]. Heidegger rapidly calls attention to that man, *Dasein*, is never changed merely into standing-reserve (Heidegger, 1977, p. 17).

4.3 Technology as a Mode of Revealing

The declaration of *Dasein* picking something freely does not sufficiently characterize a free relationship to technology, for it includes a great deal more than a basic demonstration of the will. Moreover, Heidegger envisions a free association with modern technology as one that will require a totally distinctive way for being in the world. In the event that *Dasein* can have a free relationship to technology, then Heidegger lets us know that it will be one that is established in a totally new attitude. Heidegger names this new state of mind or exceptionally distinctive method for being in the world, releasement (Heidegger, 1977, p. 21). As Heidegger keeps up that the essence of technology is not reducible to the technological (Heidegger, 1993, pp. 91-115), therefore as to comprehend what this kind of free association with modern technology involves, as mentioned, we should in the first place comprehend the refinement amongst technology and the technological object. As indicated by Heidegger, technology is distinguished from what we do with tools, instruments, apparatus or the state of mind about those things. Similarly, modern technology is not reducible to technological objects or the technological strategies that create those

things. In this sense, in *Overcoming Metaphysics* (Heidegger, 1973), he remarks that technology is able to be differed strikingly with;

> *The production and equipment of machines* (p. 93).

Therefore, if this understanding is correct, modern technology essentially is Heidegger's determination for the path in which things give themselves in and through an age. Furthermore, technology entails itself with the ontological route in which things uncover and reveal themselves by means of a sending (Heidegger, 1977, p. 24). By looking at the ontological grounds of technics, Heidegger has started to lift technology out of its subjectivistic and simply instrumentalist understandings and made of it an essential philosophical inquiry. In this sense, Ihde (2010) points out that;

> *Heidegger inverts this definition by asking a question that belongs to the transcendental tradition of philosophy: what are the set of conditions of possibility that make technology possible? Technology, as Heidegger sees it, is not only ontic but also ontological* (p. 31).

Heidegger's system gets to be more clarified in the event that it is seen that his general theory of truth is, as a result, a complex field theory. Truth is *aletheia*, deciphered as *unconcealedness*, conveyed to nearness inside some opening that itself has a structure. Beings or entities along these lines seem just against, from, and inside a background or opening, a framework. Yet, the opening or clearing inside which they take the shapes they accept, is itself structured. Overall this structure has as an invariant element, a concealing-revealing proportion. In this way, one may say that it generally has some selectivity parameter as an essential feature. Comprehended thusly, it turns out to be clear that beings are never just given: they

show up or come to the presence in some unmistakable way that is not independent upon the aggregate field of revealing in which they are arranged. To begin with, it should be stated that the field or opening in which things are gathered is, it could be said, given. Historically, it is given as an age of *being*. This is to say that the Heideggerian idea of truth has something like a civilizational given as a variable. It is what is underestimated by the humans who inhabit such a world. Variables given in this sense are specific states of the invariant revealing-concealing structure of truth. To begin with, such a move appears to be somehow nonsense; however, by setting it within the Heideggerian theory of truth, it starts to make sense in the following way. The technological objects (instruments) and the technological activities (of subjects) that connect with them show up as they do just against the background and founding stratum of some kind of framework. in fact, technology in its ontological sense is the accumulation of technological objects and activities, as well as a mode of truth or a field within technological objects and activities may show up as they do. Therefore, technology is lifted to an ontological dimension (Ihde, 2010, pp. 30-32). According to Heidegger (1977);

> *Techne is a mode of aletheuein. It reveals whatever does not bring itself forth and does not yet lie here before us, whatever can look and turn out now one way and now another* (p. 13).

Together with, Heidegger (1977) remarks that;

> *What is decisive in techne does not lie at all in making and manipulating nor in the using of means, but rather in the aforementioned revealing. It is as revealing, and not as manufacturing, that techne is a bringing-forth* (p. 13).

Consequently, technology does not represent itself only as means anymore. Rather it represents itself as mode of revealing, and subsequently, technology as a mode of truth assumes the general state of Heidegger's truth theory in a way that Heidegger (1977) explains;

> *Technology comes to presence in the realm where revealing and unconcealment take place, where aletheia, truth, happens* (p. 13).

A mode of truth as a variation upon the revealing-concealing invariant conveys with its certain attributes. A couple of these are essential to be noted as for the particular attributes of technological truth. In this sense, Idhe (2010, p. 32) has named it actually as civilizational givens, what Heidegger sometimes mentions as epochs of *being*. Accordingly, he describes them as something like profoundly held, dynamic yet continuing traditions, chronicled; however no more effortlessly thrown over than one's own particular most profound character or identity.

Hence, firstly, for an individual it is conceivable to say that he remains in or remains over against that which goes before him. According to Heidegger (1977);

> *The coming to presence of technology gives man entry into that which, of himself, he can neither invent nor in any way make. For there is no such thing as a man who, solely of himself, is only man* (p. 31).

Secondly, these civilizational givens make a case upon who possess them such that some response is required to be presented, in spite of the fact that varieties may go from sheer rebellion to willing acknowledgment. Thirdly, they have an intrinsic course (*telos*), which Heidegger names as a destiny. Be that as it may, as will be noticed, a destiny is not an emphatic determination; it is more similar to a course of

the state or process of development and rottenness (Ihde, 2010, p. 32). In this regard, Heidegger (1977) point out that;

> *We do not mean a generic type; rather we mean the ways in which house and state hold sway, administer themselves, develop and decay* (p. 30).

Therefore, technology is ontologically what portrays the variation of this epoch of being; along these lines entrance of its essence or shape turns into a focal philosophical concern while we are aimed to comprehend our time and set up a reaction to it. Once more, technology is lifted to a from time to time appear to be philosophical significance in Heidegger's sense.

Through revealing the true, the true or essence of technology, indeed, Heidegger's concern with modern technology is not only restricted to his articles that are unequivocally committed to it. In this concept, fully concentrating on his perspectives on modern technology, deeply requires some comprehension of how the issue of technology fits into his more extensive philosophical task and phenomenological approach that he has followed. In fact, for Heidegger, phenomenology is a method that attempts to give things a chance to show themselves in their own particular manner, and not investigate them ahead of time through a through a technical or theoretical lens. The most essential argument in *Being and Time* (Heidegger, 1996) that is important for Heidegger's later pondering technology is that theoretical activities, for example, the natural sciences rely on upon perspectives of time and space that slender the comprehension implicit by in how we manage the conventional world of action and concern. In this regard, we are not able to construct meaningful separation and direction, or comprehend the open doors for action, from science’s neutral, mathematical understanding of space and time.

Without a doubt, this separated and objective scientific perspective of the world limits our regular comprehension. Our conventional utilization of things and our careful dealings inside the world are pathways to a fundamental and more truthful comprehension of man and being than the sciences express. In fact, science straightens the wealth of conventional concern. By setting science back inside the domain of experience from which it begins, and by looking at the way our scientifically comprehension of time, space, and nature gets from our more crucial experience of the world.

4.4 Technology and (En)framing: The Mode of Truth

Presently, at this step, every shape or truth as a variation over the revealing-concealing ratio has a specific definiteness to it. It has an essence or structure that is not only its variety but rather is the specific type of its arrangement of conceivable outcomes that found what we take as contemporary technologies (Ihde, 2010, p. 33). With this regard, this shape of technological truth has been emerged in Heidegger's argument as *Ge-stell*. In ordinary German language, *Ge-stell* means frame, apparatus or skeleton while it has been use as *enframing* in Heidegger's sense. Regarding to the terminology used by him, as it mentioned briefly, the essence of technology in Heidegger's (1977) point of view is;

> *We now name that challenging claim which gathers man thither to order the self-revealing as standing-reserve: 'Ge-stell' [En framing]* (p. 19).

Hence, this is Heidegger's ontological meaning of technology. it has the aspects beforehand noted of being a civilizational variation into which human have moved; of being a mode of revealing-uncovering that serves as the arrangement of conceivable outcomes by which technology ontically shows up as it does; of making

a call or claim upon human for some essential response; and therefore, it has a destiny as a course towards process of development. Briefly, according to Godzinski (2005), from Heidegger's perspective;

> *Enframing is the way in which truth reveals itself as standing-reserve* (p. 5).

In this sense, through technology as a mode of revealing, as discussed, revealing is a coming to presence inside framework. In popular trend, he returns to etymological description over Greek concept that stands at the origin of our epoch of *being*. In this regard, *Techne* is initially considered as more extensive than technique in the contemporary thought. Heidegger (1977) indicates that;

> *Techne is the name not only for the activities and skills of the craftsman, but also for the arts of the mind and the fine arts. Techne belongs to bringing-forth, to poiesis; it is something poietic* (p. 13).

In this concept, *poiesis* is both making and bringing forth, however bringing forth is presencing and in this manner, is a praxical truth (Ihde, 2010, p. 33). Here is as of now the seed of the essential of the praxical that portrays Heidegger's phenomenology, however now it is vital to see just that *techne*, as with the ancient thought, is connected to episteme as a mode of truth as conveying to presence. In this concept, *techne* can reveal or bring things to presence that is feasible.

> *What has the essence of technology to do with revealing? The answer: everything. For every bringing-forth is grounded in revealing* (Heidegger, 1977, p. 12).

In fact, mode of revealing in technology obtains its distinct form through its field of possibilities and frameworks. Also, its framework is a specific type of the human

action taking up a connection to the world through some existential deliberateness. In this way, there is some specific assumed shape to the world and some specific action that reacts to that state of the world. Therefore, the technological state of the world is a collection of conditions that Heidegger demonstrates it as world taken as *standing-reserve*. In this ground, the world which is revealed technologically is assumed in a certain way, as field of energy or power that is able to be taken into possession and stored. Furthermore, by considering the technological world which is assumed as field of *standing-reserve*, Heidegger (1977) points out that;

> *The revealing that rules in modern technology is a challenging, which puts to nature the unreasonable demand that it supply energy that can be extracted and stored as such* (p. 14).

Consequently, this point of view emerges some outcomes, in which the nature appears itself as a certain potential for human utilization. Actually, this is a variant upon how the nature can be assumed in contrast to those civilizational variants, as they were discussed. Heidegger contends that such a comprehension of the world is a state of the potential outcomes for our taking up the sorts of technologies that we really develop now. In such manner, he stresses the transformational features of this undertaking. Along these lines, not just is it the case that the world might be perspective as an asset, however, what was beforehand taken as the strength of nature over man gets to be altered with the goal that man overwhelms nature through technology. In this sense, technology is both the state of the possibility of the form of the world in the contemporary sense, and the conversion of nature itself as it is taken into technology.

For each variation noematic condition, there is a comparing noetic condition. in this way, if the world is seen as field of standing-reserve, the essential path in which the world is comprehended, there must likewise be an associated human reaction. That, as well, takes specific shape in an technological age. The actions of people responding to world as standing-reserve are those of revealing that world's potential outcomes, portrayed by Heidegger as “unlocking, transforming, storing, distributing, and switching about” (Heidegger, 1977, p. 16). Following, Man is grasped into the procedure of ordering;

> *Precisely because man is challenged more originally than are the energies of nature, i.e., into the process of ordering, he never is transformed into mere standing-reserve. Since man drives technology forward, he takes part in ordering as a way of revealing* (Heidegger, 1977, p. 18).

4.5 Modern Science as Offspring of Technology

The conventional perspective of technology, identified with what Heidegger names the Instrumental-Anthropological perspective, holds that modern technology is an offspring of modern science. Therefore, technology is a simple tool of modern science or, best case scenario, an applied science. Heidegger rearranges this perspective and cases that modern science is basically the offspring of technology. The method, by which he tries to demonstrate the claim, is an impression of the same functional reversal utilized in *Being and Time* (Heidegger, 1996). Accordingly, this reversal of science and technology call for watchful examination.

Moreover, there are three associated thoughts that show up themselves toward the start of the strategy which bear introductory note.

- Firstly, Heidegger allows that contemporary predominant perspective of modern technology looks to unequivocally separate between scientific technology and the more established handwork primitive technology (Ihde, 2010, p. 35).

In fact, Heidegger does not disprove that there are contrasts, but rather he minifies them down. Case in point, in allowing correctness (not truth) to the instrumental perspective, he remarks that this perspective is able to bring both handwork and scientific technology under the same discourse as means or as instrumental towards ends. In this concept, the distinction between technologies introduces itself just as a matter of relative complexity (Heidegger, 1977, pp. 7-8);

- Secondly, the permanent affirmation upon technology as *poiesis* and as *techne*, a quality in broad ancient thought, has a tendency to reduce a distinction amongst primitive and modern technology (Ihde, 2010, p. 35);
- Be that as it may, thirdly, and most significantly, the distinction is reduced deliberately on the grounds that the essence of technology is not itself technological, but rather is existential. In this sense, therefore, modern technology permits the mystery grounds of technology as enframing to be emerged accurately, permits what was long concealed and originary to be left no room for confusion or doubt (Ihde, 2010, p. 35).

Connected with the reduction of key contrast amongst primitive and modern technology, is the essential confirmation that modern technology emerged chronologically later than modern science. As Heidegger (1977) indicates;

> *Chronologically speaking, modern physical science begins in the seventeenth century. In contrast, machine-power technology develops only in the second half of the eighteenth century. But modern technology, which for chronological reckoning is the later, is, from the point of view of the essence holding sway within it, the historically earlier* (p. 22).

Therefore, the essence of technology is not sequentially earlier, but rather it is historically, ontologically, preceding modern science. It is from the reversal that the technological age is the thing that portrays the contemporary period. In this discussion, subsequently, the reversal emerges itself clearly with regard to the modern science and its instruments. By admitting that modern science is technologically embodied, Heidegger (1977) remarks that;

> *It is said that modern technology is something incomparably different from all earlier technologies because it is based on modern physics as an exact science. Meanwhile we have come to understand more clearly that the reverse holds true as well: Modern physics, as experimental, is dependent upon technical apparatus and upon progress in the building of apparatus* (p. 14).

In this regard, technology is the wellspring of science, and therefore, technology as enframing is the beginning of the scientific perspective of the world as standing-reserve. Indeed, enframing is both the state of the possibility of modern science and the field of potential outcomes inside which it moves. Furthermore, enframing as the ontologically horizon of modern science such that what takes place within it shows up as it does through its sorts of ordering (Ihde, 2010, p. 37).

4.6 Concerning Technology and Heidegger's Salvation

According to Heidegger, one can results these three major consequences from technology;

- Firstly, although technology apparently is the outcome of the human tendency to exploit and to utilize more from the nature; but it finally conquers on humans. Therefore, it will be out of control by humans as far as it encourages and leads the world upon its possibilities;
- Second, the modern technology seeks to bring the purposeless and wandering set of conditions by itself. In this sense, the man becomes a subject and subsequently, he will be deprived from his origin. By considering, human wandering and rootlessness as technological consequences, it can be said that technology does not emerge itself as an existential, and it carelessly transforms other entities as it does tend to do, and eventually, it eliminates them;
- Third, technology repeals other entities' possibilities for revealing, because it has been penetrated into and through them, for instance, even, the field of art. In fact, in such process, one can only perceive the world technologically and comprehend it through aggressive technological revealing.

Indeed, Heidegger sketches a frightful image from the essence of technology; an image in which man is seriously affected by amnesia and decontextualization. What is the remedy? Does the man choose the isolation or as the common does, he has to reluctantly accept this destiny? Of course, in Heidegger point of view, the destiny in no way does not mean the inertia; rather it is often sketched as a direction. A

direction aimed to present a framework in best situation, and to provide a set of conditions as particular interest. According to Heidegger (1977);

> *We experience Enframing as a destining of revealing. In this way we are already sojourning within the open space of destining, a destining that in no way confines us to a stultified compulsion to push on blindly with technology or, what comes to the same thing, to rebel helplessly against it and curse it as the work of the devil. Quite to the contrary, when we once open ourselves expressly to the essence of technology, we find ourselves unexpectedly taken into a freeing claim* (pp. 25-26).

In the Heideggerian project, in fact, is to have perceived that the relationship to technology is not technological, but rather is an existential relationship, and henceforth, encircled by every one of the elements that portray existentiality. To portray the human reaction to technology, as it is located and constrained, is to perceive that technology has three prominent attributes mentioned below. But, according to Idhe (2010, p. 39), all these characteristics are rooted in existential intentionality with regard to the framework of concealing-revealing. Perhaps, the major consequences, as mentioned above, can be resulted by these three attributes by technology;

- Firstly, technology is not neutral. As Heidegger (1977) says;

  > *We are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology* (p. 4).

- Secondly, technology is ambiguous, as Heidegger (1977) remarks;

The essence of technology is in a lofty sense ambiguous (p. 33).

- Thirdly, the essence of technology is mysterious, as the technology is not demonic. Heidegger (1977) indicates;

  Such ambiguity points to the mystery of all revealing, i.e., of truth (p. 33).

Heidegger portrays a scope of conceivable reactions to technology. the extent from visually impaired obedience to similarly blind rebellion. However, he additionally considers the free relationship that confronts technology in its essence, but since there is such an extent, there is likewise threat (Ihde, 2010, pp. 39-40). Heidegger (1977) points out that;

> *Placed between these possibilities, man is endangered from out of destining. The destining of revealing is as such, in every one of its modes, and therefore necessarily, danger* (p. 26).

The threat, here, is basically the same as the already noted threat of taking correctness as truth, the threat which is of taking a section for the whole. In this regard, Heidegger (1977) says;

> *In whatever way the destining of revealing may hold sway, the unconcealment in which everything that is shows itself at any given time harbors the danger that man may quail at the unconcealedand may misinterpret it* (p. 26).

This misinterpretation contains components that mirror the mistakes in taking accuracy for truth. They rotate around the variant of mixing up the part for the establishing whole. Hence, unless it is perceived that technological revealing is additionally a concealing, it can be mixed up for totality. In this sense, technology by

its an exceptionally status as a mode of revealing, may shelter this enticement. Consequently, the coming to presence of technology undermines the technological revealing, debilitates it with the likelihood that all revealing will be expended in ordering and that everything will introduce itself just in the unconcealedness of standing-reserve (Heidegger, 1977, p. 33). This is to say a technological attribute which frustrates us from conflicting essence of technology, while it presents itself as a veil upon the truth and isolated from *being*. In this regard, as mentioned briefly, if the world is comprehended wholly as a standing-reserve, therefore, humanity can also comprehend itself as the same by itself. On the other hand, it is sketched question on concerning technology, which makes us hopeful to found out its essence.

So as *Gestell* represents itself as an exact danger, on the other hand, it may be understood as a salvation. In this respect, as Heidegger (1977) cited the Friedrich Hölderlin's poem;

> *But where danger is, grows*
>
> *The saving power also* (p. 28).

The other aspect of Heideggerian reaction is or might be seen as an endeavor to widen and improve technological revealing. In this regard, the advancement originates from a comparable action that is in its own particular right praxical and poetic; the improvement is to get through an essential revival of *techne* as art. This move is commonplace all through the Heidegger accentuation upon the primal thinking about the poet; however it is infrequently refreshing as similar-dissimilar partner of *techne* as technological. In this concept, art is technological as *techne*, yet its mode of uncovering (revealing) opens better approaches for saying being as Heidegger puts it. This is on a very basic level not quite the same as *techne* as

technology. Therefore, technology and art both represent the danger and feasible salvation of the identical epoch of *being* (Ihde, 2010, p. 41). By looking into the danger, Heidegger (1977) remarks that;

> *Through this we are not yet saved. But we are thereupon summoned to hope in the growing light of the saving power* (p. 33).

In fact, the saving power is concealed into the technology itself. Here, at the end, it has to be noted again that *techne* is not only the activities and skills of the craftsman, but it also refers to the arts of the mind and the fine arts which are able to reveal the truth as *techne* belongs to the mode of bringing forth and *poiesis*. By regarding to this fact that art should not be another veil upon the truth, and influence our question about, Heidegger (1977) indicates that;

> *Because the essence of technology is nothing technological, essential reflection upon technology and decisive confrontation with it must happen in a realm that is, on the one hand, akin to the essence of technology and, on the other, fundamentally different from it..Such a realm is art* (p. 35).

4.7 Summary of the Chapter

In this chapter, substantive philosophical perspective toward modern technology has been introduced as an alternative to Instrumental-Anthropological definition and issues of technological instrumentalization. In this respect, by considering by numerous twentieth century thinkers and social scholars such as Martin Heidegger, Hans Jonas, Hannah Arendt, Lewis Mumford, Erich Fromm, Hans-Georg Gadamer, Walter Benjamin, and Jacques Ellul as the ones who substantively seeks the philosophy of technology, the Heideggerian substantive perspective of technology has been brought into the discussion. Following the Heideggerian phenomenological

strategy, firstly, his criticism on subjective Instrumental concept of technology has been sketched in order to introduce his thought on concealing-revealing ratio and mode of revealing in technology in which technology emerges itself as a field of standing-reserve. By differentiating the mode of correctness from the truth, and essence of technology from technological, his thought on Gestell or enframing is discussed aimed to investigate, on the one hand, the issues of modern technology in his point of view and also, on the other hand, his salvation towards the research problem by identifying the concepts of *techne* and *poeisis*.

By having this theoretical ground for this study followed in chapter two, three and four; in the following chapter, the method of field study will be identified in order to show the contribution of philosophical discussions sketched with architectural discipline and environmental studies in architecture, and furthermore, seeking for derived impacts of those technological problems in architectural ground and in the context of architectural meaning.

Chapter 5

FIRST-PERSON METHOD TOWARD AN EMPIRICAL APPROACH TO PHENOMENOLOGY AS THE METHOD OF FIELD STUDY AND THE DERIVATIVE LIST OF MEDIATIONS

5.1 Why Phenomenology as a Research Methodology?

In the context of the ideological crisis and devastations at the end First World War in between 1914 to 1918, Eagleton (1983) has captured clearly the situation of European lay in ruins and he says;

> *The social order of European capitalism had been shaken to its roots by the carnage of the war and its turbulent aftermath. The ideologies on which that order had customarily depended, the cultural values by which it ruled, were also in deep turmoil. Science seemed to have dwindled to a sterile positivism, a myopic obsession with the categorizing of facts; philosophy appeared torn between such positivism on the one hand, and an indefensible subjectivism on the other; forms of relativism and irrationalism were rampant, and art reflected this bewildering loss of bearings* (p. 47).

In such an atmosphere, the German thinker, Edmund Husserl (1859 – 1938) has looked to build up another philosophical strategy which would loan outright conviction to a deteriorating progress (Eagleton, 1983, p. 54). However, In spite of the fact that the causes of phenomenology can be followed back to Kant and Hegel, Vandenberg sees Husserl as "the source of phenomenology in the twentieth century"

(Vandenberg, 1997, pp. 3-37). In this sense, Husserl dismisses the conviction that objects in the external world exist autonomously and that the data about items is dependable. He contended that individuals can be sure about how things show up in, or present themselves to, their awareness (Fouche, 1993). To touch base at sureness, anything outside immediate experience has to be disregarded and consequently, the outer world is reduced to the substance of individual consciousness. Truths are along these lines regarded as immaculate "phenomena" and the main total information from where to start. In this ground, Husserl has named his philosophical method 'phenomenology', the way of study which purely investigates the immaculate 'phenomena'. Extensively, as it has been remarked by Eagleton (1983, p. 49) and Moustakas (Moustakas, 1994, p. 26), the point of phenomenology is the arrival to the concrete, caught by the trademark 'Back to the things themselves!' Subsequently, Martin Heidegger (1889 – 1976) as an understudy of Husserl, presented the idea of '*Dasein*'-or being there- and the exchange between a man and her world. By 1970, be that as it may, as cited in Groenewald (2004, pp. 25-41), Stones (1988) explains that phenomenology;

> *...had not yet establish[ed] itself as a practical other option to the conventional characteristic experimental methodology in mental examination* (p. 141).

According to Giorgi (1970), as cited in Schwandt, the reason was that a phenomenological praxis, as an orderly and maintained way, had not yet been introduced (Schwandt, 1997). In such manner, after phenomenology thrived amid the initial a quarter century the Second World War, this methodology was overlooked for some time (Lippitz, 1997, p. 69).

Phenomenology can be considered as one of the major approaches to qualitative research which gives the opportunity to descriptively study how individuals experience a determined phenomenon in general. In the other word, whereas a narrative study describes the life of the single individual, a phenomenological research approach gives an account to the meaning of several individuals and more importantly, their lived experience-in such an approach to a phenomenon, experience is assumed as a conscious process (Creswell, 2007, pp. 57-58). Nonetheless, in the 1970s, phenomenological analysts set up praxis, which is a methodological acknowledgment of the phenomenological philosophical state of mind. In this regard, by referring to Moustakas (1994), Creswell (2009) points out that;

> *Understanding the lived experiences marks phenomenology as a philosophy as well as a method, and the procedure involves studying a small number of subjects through extensive and prolonged engagement lo develop patterns and relationships of meaning* (p. 13).

Furthermore, in such a background, phenomenological approach can be introduced to answer what actually is the meaning, structure and the essence of lived experience of a phenomenon by an individual or a group of individuals. Indeed, in such a research methodology, an individual- as a researcher- attempts to get access to the world of experience of individuals; which here in this study is called life-world of individuals. By following, a researcher tries to concentrate on the essences of the experience which is based on the invariant structures of experience belonged to the individuals. In such a study, the researchers rather than addressing to what is distinctively unique in an single individual's thought, is aimed to investigate the commonalities among individuals and identify a shared experience. In general, phenomenological approach to the lived experience is targeted to develop and interpret the essence of experience

(Patton, 2002). By referring to Giorgi, cited in Groenewald (2004, pp. 25-41), the agent word in phenomenological examination is 'portray'. The point of the specialist is to depict as precisely as could be expected under the circumstances the phenomenon, shunning any pre-given structure, yet staying consistent with the truths.

As an accomplishment of the twentieth century, phenomenology is a moderately new branch of reasoning. It is a strategy for investigation into individuals and the world or, more decisively, into their relationship. Instead of conventional Western comprehension taking into account a sharp refinement amongst individual and the world, phenomenology - very incredulous of Cartesian dualism in any structure - respects subjects and objects in their solidarity. In this sense, phenomenology has introduced itself as one of the theoretical paradigms or ideological frameworks which forms the thematic debates in architecture. Indeed, architectural theory by reliance on this philosophical method of inquiry –known as phenomenology, underlines one aspect of interdisciplinary attitudes of architecture. As Nesbitt (1996) remarks;

> *That this philosophical thread underlines postmodern attitudes towards site, place, landscape, and making (in particular, tectonics) is sometimes overlooked and unquestioned* (p. 28).

The criticism of phenomenology on positivistic thoughts - based on optimism about augmentation of scientific approaches- , had been lifted above and downsized Being, engaged postmodernists to reevaluate technology’s commitments to advancement in a less energized light. At this point, as cited in Nesbitt (1996, p. 29), it should be mentioned that architectural theory ordinarily lingers behind cultural theory and the instance of the retention of phenomenology is no exemption.

In this concept, by considering all investigations, including that of an epistemological essence, are presumptions with respect to the relationship between people and the world. Regardless of broad affirmation of these ontological worries in human sciences, there has been next to no unequivocal reaction by the design disciplines such as architecture. Of the researches related to architecture, most have had a tendency to obtain from exploration that is either pragmatist situated or empiricist oriented. Regard to this, there are very few studies which encompass holistic perspective characteristics and qualities of phenomenology and furthermore, hermeneutics. Among the exemptions, the works done by Coyne and Snodgrass, Schön, Dilnot and Norberg-Schulz, can be exemplified (Franz, 1994).

Of importance to architecture and a phenomenological comprehension of design and planning, is the research to do with dwelling conducted in topography and philosophy. Underlying these researches is the work done by the thinker Heidegger. For Heidegger, dwelling is a method for existing, or 'being-in -the-world'; a ‘being’ which specifically began in a man's ordinary dynamic inclusion with the world. Along these lines, to comprehend the way of this presence requests thoughtfulness regarding the activity and the context in which the activity is grounded. A region of study which concentrates on comprehension along these lines is hermeneutics.

Interpretative Phenomenological Analysis (IPA) introduced by Jonathan Smith - in the mid-1990s-, is one of the new qualitative approaches to data analysis with its origins in phenomenology and hermeneutics. The approach is phenomenological in that it involves detailed inspection of the contributor’s point of view. Also it is aimed to investigate personal experience and is concerned with an individual’s personal perception or account of a given phenomenon, in order to offer insights into how the

contributor in a distinct context makes sense of the given phenomenon, not as an attempt to demonstrate an objective statement of that (Smith, Flowers, & Larkin, 2009, pp. 9-39).

By applying Interpretive Phenomenological Analysis (IPA), this research has been aimed at producing an in-depth inspection of specific phenomena (in this case, the influence of instrumental-anthropological perspective of technology on the state of meaning in architecture), and not leading to a theory to be generalized over the whole theoretical discussions in architecture (Pietkiewicz & Smith, 2014). Moreover in this thesis, the main concern of Interpretive Phenomenological Analysis on the case, was to give equal and full appreciation to each participant's perception and account who has taken part in this research (Such as residents, architects or researcher). The principal goal of this research is to discover and examine how individuals make sense of their experiences in this particular subject. It was supposed that participants are 'self-interpreting beings' (Taylor, 1985).

5.2 First-Person Phenomenological Approach and the Reasons

In such a ground, in the most recent quite a long while, there has showed up a developing number of works that examine the connection of phenomenology to the insightful and expert worlds when all is said in done terms and to particular disciplines including investigations and comprehensions of environmental and architectural issues. Among these works, phenomenology has been set inside the more extensive theoretical and methodological rubric of qualitative inquiry. Consequently, phenomenology can be distinguished as one style of the qualitative method of inquiry, however including a specific theoretical and methodological establishment. In this regard, through these particular foundations, according to

Seamon (2000), these two broad assumptions can be highlighted as essential core of a phenomenological approach;

- Person and world as intimately part and parcel;
- A radical experimentation (empiricism).

Accordingly, these two assumptions grants this research a superior sense of what makes phenomenology particular and how this uniqueness can put forward a significant instrument for studying environmental and architectural issues. By regarding to these two assumptions, the first one is identifies with the specific topic of phenomenology as the second assumption identifies with the tools by which that topic is to be caught on. Now, to be emphasized, as Seamon remarks;

> *Phenomenological method incorporates a certain uncertainty and spontaneity that must be accepted and transformed into possibility and pattern. The phenomenological approach to a particular phenomenon must be developed creatively and allow for a fluidity of methods and research process* (Seamon, 2000).

In this concept, therefore, by considering that phenomenology inquires the sorts of images and understandings that offer meaning to a specific gathering or society's way of living and experiencing that which broadly incorporates bodily, instinctive, natural, emotional, and transpersonal measurements of built environment, this research includes humanities, social research dimensions as well as phenomenological inquiries. Accordingly, the study has been formulated with regard to the first-person approach to phenomenology as the central methodological tool in this field study (Seamon, 2000). With regard to one of the basic characteristics of a phenomenological study that, the research has to involve the researcher's direct

contact with the phenomenon, Roth (2012) introduces the first-person method and he points out;

> *Inherently, as the name suggests, first-person methods require the experiences of the researcher. But the point is to make the first-person approach a rigorous method, which means, that it and its results can be and are shared by others* (p. 5).

By highlighting the reasons below, firstly, the field method has been identified and limited partially by this mentioned phenomenological approach since it draws on the domain of experience only nearest to the researcher and his own particular lived experience in the built environment under investigation. In this sense, subsequently, the dimensions and perspectives emerged in this research, can be explored more distinctly in further studies by having more focus on each effect, mediation or indicator. The reasons of designing the research methodology as described above are based on the following challenges of this research:

- Holistic effects of the problem of technology which requires research of both humanities and social dimensions, in this regard, phenomenology is used for humanities dimension and a questionnaire survey is realized to see the social dimensions of the research;
- Effects of problem of technology on non-discursive architectural meaning which causes serious problems in verbal and even graphic communication. The important challenge through understanding architectural meaning was confronted and concerned through the implication of first-person empirical phenomenological field method, was that the non-discursive communicative structure has been assumed dependence on trust of the inhabitants‟ receiving

talent and interpretation and their priorities, providing the ability to comprehend set of structural conditions emerged in built environment to a limited extent subjective. This concern becomes more vital to this research, since the built environment was considered as product of technological framework of ordering the built environment rather than humanitarian cultural and contextual comprehension of space;

- Large number of mediations to be experienced. By regarding that the indicators of these mediations might also differ extensively from case to case. The necessity of such a research has been noticed to cover this large subject at once in order to address problem of technology;
- Veil eliminating unconcealment of these mediations according to Heidegger`s philosophy while he remarks that these subjects are concealed for most people.

In this sense, the first-person method has been employed aiming to examine problems of technology emerged in architecture and built environment basically in such a way, according to Roth (2012, p. 4), to the point that more broad states of knowing and learning are displayed. In this concept, in this first-person phenomenological inquiry, the researcher's firsthand experience of the phenomenon has been considered as a basis for examining the specific characteristics and qualities of environmental mode and its relationship with problems of modern technology, in more advance, through implication of field method and list of mediations emerging in empirical part of the field study on designated case and phenomenological observation.

In this way, to clarify the approach more, on the one hand, this first-person phenomenological study has been employed while it can be assumed as a beginning spot from which this phenomenological study can convey to awareness its subjectivities and biases in regards to the experience being examined so that the study is more averse to force these predispositions in the process of interpreting the phenomenon (Seamon, 2000; Shertock, 1998). On the other hand, to valid the selected approach more in this research, since there was an access to the first-person experience of the phenomenon, it should be stated that this approach was able to present clarity and understanding grounded in one's own lifeworld. In this regard, however, the insight has been derived from the researcher's world, but, it was tried to engage the worlds of others to the study, through the interview with the expert person involved to the process of design and construction of the built environment. Moreover, the opinions of inhabitants have been asked qualitatively about the social and physical dimensions of the built environment and their emerged meanings through the questionnaires in order to reach more reliable responses.

5.3 Empirical Approach of Phenomenology towards the Constructing the List of Mediations

By considering the two major phenomenological approaches highlighted by Creswell (2007, p. 59), the empirical approach towards phenomenology has been added as well. By considering the procedures for conducting empirical phenomenology introduced by Moustakas (1994), cited in Creswell (2007, pp. 60-62), the researcher has verified that the examination issue is best analyzed utilizing a phenomenological approach. It is because of the mere quest to this approach and its matching with the type of research problem in this study, in which it is vital to comprehend a few

individuals' common or shared experiences of a phenomenon under investigation. To emphasize, it is meant to investigate and grasp these lived experiences so as to accomplish practices or strategies or then again, to grow profoundly an understanding in respect to the features of the phenomenon. Moreover, it was aimed to create accurate fit between experience of built environment under investigation and theory.

In fact, this approach does not focus only on the interpretations of the researcher and basically, it is formulated transcendentally to rely on the description of lived experienced given by contributors in the case of seeing the actors' supports and reaction to the results of first-person phenomenological inquiry. In this ground, the research starts to do bracketing out in which he begins to set aside firstly his subjectivities and assumptions as much as possible, in order to obtain recent perspective towards the phenomenon under investigation (Moustakas, 1994). Accordingly, as Moustakas (1994) defines, cited in Creswell (2007), transcendental means;

> *In which everything is perceived freshly, as if for the first time* (p. 60).

In this sense, Creswell (2007) gives particular emphasis on this point and says that;

> *The researcher recognizes and specifies the broad philosophical assumptions of phenomenology. For example, one could write about the combination of objective reality and individual experiences. These lived experiences are furthermore 'conscious' and directed toward an object. To fully describe how participants view the phenomenon, researchers must bracket out, as much as possible, their own experiences* (p. 61).

Therefore, the study on field has been formulated in seven steps mentioned below according to the classification suggested by Aspers (2009) through empirical phenomenology. Each step is also described briefly here, and more deliberatively in following pages, in order to provide more awareness about the Aspers' steps and transformations done in this research;

- Definition of research question;
- Conduction of a preliminary research on the topic;
- Selection of a theory and utilization of the theory as a scheme of reference;
- Exploring first-order constructs and bracketing down the scheme of reference;
- Construction of second order constructs (mediations);
- Check for unintended consequences;
- Relate the evidence to the scientific literature and the empirical field of study.

In fact, the procedure is very prone to emphasize, reflecting the crisscross procedure for testing and setting up secure dependable balance for learning. For instance, the process will go face and forward between steps one and three more than once. None of the steps is remarkable to the qualitative examination, yet together they defend the on-screen character point of view without reducing the role of theory, which is very basic in this subjective exploration.

5.3.1 Step One: Definition of Research Question

Acording to Creswell (2007, p. 60) and Aspers (2009, p. 5), the researcher is the one who gets decision what problem is at hand. In this concept, the problem definition may emerge itself through researcher's interest, or it can be emerged itself directly

relative to the debates and discussion in the community of research, in the field study and even other sources.

In this research, it is aimed to execute the empirical survey approach towards the phenomenon by considering the procedures introduced by Moustakas (1994). Firstly, by identifying a phenomenon which is under examination- in our case impacts of instrumental perspective of technology on the state of meaning in architecture as defined in chapter one and two, researcher aimed to do bracketing out his subjective thoughts towards the phenomenon accordance with the indicators mentioned in literature as characteristics of modern technology, levels of meaning in architecture and finally issues of instrumentalization of technology.

At this step, by considering the role taken part by modern technology in forming the built environment, the characteristic of modern technology are investigated to see the evidence of technological instrumentalization on the living environment in the theoretical framework of state of meaning in architecture. The questions sorted out below, illustrate the structure of emerging the main research question of how instrumental-anthropological perspective of technology impact the meaning of architecture;

- What are the major characteristics of modern technology? And how do they represent themselves in built environment and architectural space?
- What the instrumental-anthropological perspective of technology? What are the issues emerged by this perspective in philosophical ground and in reality?
- What impacts does instrumental-anthropological perspective has on forming the built environment?

- What is the consequent meaning of instrumental-anthropological perspective of technology in built environment and architectural space?
- What is the alternative perspective towards the problem of instrumental-anthropological conception of technology in philosophical ground of architecture?

5.3.2 Step Two: Conduction of a Preliminary Study on the Topic

To comprehend what theory can be used, the research has to be engaged in the field. Through the preliminary study, researcher tries to explore if there is possibility to address the research question or questions. In this process, the research question can be changed, as might the method of research or the theory chosen that can be used. In this step, researcher may attempt to go through the academic and non-academic texts and interact with the ones in the field aiming to have an overview on the field. Based on the obtained knowledge, therefore, setting up the relations during the preliminary study may prove invaluable (Aspers, 2009, p. 5).

In this research, firstly, Heideggerian concerns of modern technology have formed the foundations of the study. Secondly, a vast survey has been done on philosophy of technology, and the varied perspectives of modern technology in philosophical ground have been categorized into three main categorization mentioned below (Feenberg, 1999; 2002; 2005; Mitcham, 1994);

- Instrumental-Anthropological Perspective;
- Substantive Perspective;
- Critical Perspective.

5.3.3 Step Three: Selection of a Theory and Theory Utilization as a Scheme of Reference

Theories assist the research which aspects of the study subject is related to the research, as one is not able to consider all the first-order constructs of the study subject. So selecting a theory has to be considered as early phase of research process to limit the study among the useful first-order constructs in the research. Moreover, it means that the study utilizes theories as schemes of reference, which give focus to the study. In fact, the theories are the means for the process of comprehending (Aspers, 2009, pp. 5-6).

As an integral phase of the research process, Heideggerian and substantive approach is identified itself as main construction of the study. Through this process, among the categories defined in second step, by referring basically to Heidegger (1977; 1996), the focus of the study has been defined on the Heideggerian diagnosis of instrumental-anthropological perspective as the problem of modern technology and substantive approach as an alternative approach to the problem. In this regard, both theories have been identified as focuses of the research, are both considered as adoptable theories (Instrumental-Anthropological and Substantive) to empirical evidence and research question. Furthermore, they also give answers which can satisfy the quest for a phenomenological explanation. Here, also, the actors of the research characterize themselves as the research themes mentioned below;

- Characteristics of Modern Technology;
- Issues of Technological Instrumentalization;
- Levels of Meaning in architecture.

Through these actors' perspective, the instrumental-anthropological perspective and substantive perspective identify themselves as schemes of reference. So the research question again addresses accurately relevant to the impact of instrumental-anthropological perspective of modern technology on the state of meaning in built environment.

The instrumental-anthropological towards technology are bracketed down into substantive Heideggerian-based thoughts. In this sense, the characteristics of modern technology are resulted from a substantive thinker of technology, Ellul (1964). In addition, the issues of technological instrumentalization is bracketed down into the classification sketched by Feenberg (1999; 2002), a Heideggerian-substantive thinker.

5.3.4 Step Four: Exploring First-Order Constructs and Bracketing down the Scheme of Reference

To comprehend and research actor intends to achieve the level of performing first person's first-order constructs, where the research explains the actor's meaning structure and the perfect sorts they utilize. The emphasis is on the first-order constructs, not the second-order constructs. In any case, the research is not intrigued by all first-order constructs, just those secured and covered by the scheme of reference. In this step, the empirical materials achieved through the discovering the themes in theory, are named first-order constructs. As Aspers (2009) explains, the process of emerging first-order constructs;

> *…means gathering information about what people mean when they use certain words, how these are related to each other in a meaning structure, what theories they are using, and what ideal types they construct among themselves* (p. 6).

By emphasizing that at this step, however, the research was assumed to let the theory to assist and direct the study to more significant level of the empirical field and addressing to the certain empirical domain, but according to Aspers (2009), it has attempted to bracket the theory while being in the field, and subsequently, avoided to have set of theoretical concept to take place in the process of emerging the first-order constructs. In this sense, to investigate the role of modern technology and its impacts on the built environment, firstly, the first-order constructs of this first-person method towards empirical phenomenological research have been emerged through the observational field notes on the case and its environmental characteristics realized as environmental problems. These themes as first-order constructs of the study were deliberatively explained regarding to the process of the qualitative method of analyzing the data materials in following pages by giving case specific items;

- **Building machinery systems:** through the phenomenological observation, building machinery system has been realized as technological systematization process of built environment by considering the achievement of interplay of capital, interests, power and media through new urban development in the region and specifically in the case;
- **Environmental universality:** through the phenomenological observation, the transmitting mode of the built environment has been realized as a universal mode without considering the contextual values through the process of decontextualizing, homogenization and superficiality happened in case designated;
- **Turbulence in built environment:** through the phenomenological observation, it means that the setting has been observed through the new contradiction in environmental transmitting modes in relative to the

characteristic of the distinct context including decontextualization, homogenization and superficiality, and then, they finally call together as turbulence in the environment;

- **Decontextualization of built environment:** the transmitting environmental mode in the level of decontextualization in selected case has been observed by considering the extensive land utilization emerged itself more intensive and artificial because of the buildings and their materialistic physical identification;
- **Homogenization of space:** reproduction of similar physically and socially homogenized qualities has been observed in the case opposing to other existing settings, which caused difficulty through the process of observation for identifying the distinct context and place, the selected case referred to the issues of the similar materialistic identification opposing to natural environment;
- **Superficiality in space:** through the observation, by lack of physical continuity among different settings, the reduction of built environment to non-contextual understanding of the living environment has been observed by having no physical integration with natural environment and other built environments (Detachment).

Accordingly, the second-order constructs may be investigated in relation with the lists of mediation delivered by the theoretical framework of themes. In this ground, if they may meet the process of conduction, and support by the participants, can be used and justified in the final textural and structural description of the phenomenon. By regarding to the table.8, to develop the first-order constructs based on the

environmental mode of the case, the field study has been implicated to the selected case. In this sense, the research combines the themes of the empirical study and employs them through the method of inquiry mentioned below;

- **Observation (first draft):** by considering the research questions (step one) and the data collected through conduction of pre-study of the topic in theory (step two), the research has provided a textural description- field proper note- through researcher's observations of the case by utilizing notes, photographs and architectural hand drawings. They basically construct the theoretical framework of the first-order constructs aimed to develop a description on the case. In this process, firstly, the descriptive writing has been done including condensed (jotted) notes together with sketches and photographs. The combination of the descriptions, sketches and photographs were written down while the researcher-actor was in or very close distance to the field. Afterwards, the jotted notes were converted to the field notes later on, when the observation was taken place. The field notes proper were written in more advanced detail, including a detailed advanced description of the physical aspects of the context added to their behavior (responses) and non-verbal/non-discursive communicative way towards the built environment. The descriptive field notes are also included the thoughts, interpretations, impressions and explanations on the part of the actor-researcher (more detailed table in Appendix A). As it mentioned, by selecting a theory and verifying it as a scheme of reference, the second-order constructs have emerged themselves. In this regard, by considering those three categories of research themes, firstly, based on the scheme of reference, the characteristics of built environment and its relationships with the characteristics of modern

technology were investigated through the several observations have been done by researcher in order to classify the subjectivities and the possible evidences of them in the case. By classification done on the results in the textural structures provided as a field proper notes, the subjectivities about the impacts of modern technology in the built environment which have met the issues of technological instrumentalization in both functional-philosophical ground and realization level, have been kept and subsequently, they have been gathered to construct a final textural structure based on the second-order constructs observed, coded and interpreted in the case;

- **Observation (second draft):** through the process of cutting-sorting the qualitative data included in field notes, initially emergent codes and subsequently the codes were arranged. By classifying the codes, the initial construction of the themes has done through the interrelations existing between the codes and emergent codes. Within the process, the themes were sorted out according to the hierarchy and similarities appeared in field notes. Therefore, themes were identified as main themes and group of subthemes;
- **Observation (third draft):** in this draft, the themes and the subthemes were texturally described based on the case implicated to the research field. In this step, the themes were explained with regard to the facts observed and the subjectivities of the research. By considering the interrelationships between the themes and subthemes, they were also hierarchically grouped.

This process has been done according to the steps mentioned above.

To move deeper into understanding the data collected in observational field notes, questionnaires and interview, to represent the data, and finally, to make interpretation

of larger meaning of the data collected through extracted themes and subthemes, a process of qualitative data analysis has been applied on the data collected contains following steps from the specific to the general and as involving multiple levels of analysis. It was aimed to validate the accuracy the information;

- ***Organizing and Preparing Data for Analysis:*** in this step, data collected in jotted (condensed) notes including notes, sketches and photography are converted into field proper notes and typed up as textural form (Appendix A). At this step, subsequently, the material was optically scanned and sorted as facts and observer's subjectivities. In this regard, by using the sorting-cutting method the textural field notes were organized;
- ***Reading through All Data:*** to obtain a general sense through the reading process, the field notes have been carefully read in order to reflect the overall meaning of the data collected. At this step, also general thoughts by analyst has been recorded on the textural data collected, including;

    - Gated Community (Setting);
    - Environmental Mode;
    - Transmitting Environmental Mode;
    - Technological Systematization.

- ***Coding the Data:*** at this step, by coding the field notes the detailed analysis has been done on the observational field notes (Appendix A). Through the process of coding, the textural material has been segmented aimed to bring meaning to information and to label them. This process has been done on other collected visual data as well. Afterwards, aiming to get a sense of the whole, by jotting down the ideas as they came to the mind, the emergent

codes emerged. After completing this task, the list of all the topics mentioned below was resulted in light of clustering together similar topics;

- The role of power and politics in the building process of environment;
- The role of capital and interests in the building process of environment;
- The role of media in the building process of environment;
- Urban Development;
- Emerging a contradictory environmental entity in contrast to the natural and social settings in the context;
- Isolation in an artificial framework in the living environment and sense of placelessness;
- Isolation in a way to generate a homogenized environment with non-contextual/global mode;
- Physical and social hegemony in terms of formative characteristics of the built environment;
- Spatial hegemony through similar non-contextual solutions which are repeated all around the complex;
- Contradictory non-contextual materialistic identification of buildings opposed to other settings existing in the context;
- Non-contextual arbitrary arrangement of built environment through grid ordering system;

- **Themes and Subthemes:** by considering the codes generated through the process of coding the field notes, they were assumed to describe the subthemes and main themes descriptively and being the ones that are generating as major results (themes) in this qualitative research. Moreover, they were used to establish headings in the findings parts of this research. In

this concept, by accomplishing the description resulted from subthemes, it was aimed to advance the themes which were qualified to be represented in the qualitative narrative. Actually, these descriptions are constructed to open the discussion on interconnecting themes, subthemes and codes on the selected case. The resulted results are briefly has been shown in the Table.6 below (more detailed table in Appendix B). By getting back to the field notes, at this level, the topics as emergent codes were abbreviated as codes and they have been written next to the relative emergent codes, however, it has been tried to transform this preliminary organization of scheme to a more hierarchical mode and to construct the new codes. Subsequently, the themes resulted from the phenomenological observation on the case and provided field proper noted mentioned below as case specific themes;

- ***Gated Community (Setting):*** Socially and physically isolated built environment (gated community) through privatizing the space and place aiming use of exclusivity of space. Towards case specific items, the physical arrangement of the case observed as isolated built environment by considering the issues of privatization of space, rejection of the non-members access and offering the complex as a representation of exclusivity for inhabitants, lack of physical continuity among different settings, social-spatial inequality, use a legal framework to deny the public access to the goods, social classification and urban segregation, etc. in this sense, the setting has identified itself as a gated community where is other items were emerged (for more detail items observed in the selected case, Table.6, Appendix A, B and C);

- ***Decontextualization of Built Environment (Transmitting Environmental Mode):*** Decontextualization of natural setting to Non-contextual contrasting entity (by considering the built environment NOT as an ontological act). In this concept, the transmitting environmental mode in the level of decontextualization in selected case has been observed by considering the extensive land utilization emerged itself more intensive and artificial because of the buildings and their materialistic identification in which high density, high proximity (privacy issues) and inner forms are surrounded by higher forms in the built environment. In this regard, new ordering system for the natural environment has been observed in which, natural environment does not have an identical role in the new ordering system. Moreover, repetitive linear arrangement of the similar forms in grid system of arrangement by lack of natural/geographical reference (disorientation-dislocation), similar housing typologies to other contexts and non-contextual spatial norms repeated in all typologies in architectural scale and so on, represented this mode of environmental status (for more detail items observed in the selected case, Table.6, Appendix A, B and C);
- ***Homogenization of Space (Transmitting Environmental Mode):*** Reproduction of similar physically and socially homogenized qualities (by considering the built environment NOT as an ontological act). By having difficulty through the phenomenological observation for identifying the distinct context and place, the selected case referred to the issues of the similar materialistic identification opposing to natural environment, reproduction of similar solutions (non-contextual) in terms

of typical spaces, size, material used (colors, textures), high density and high proximity, minimizing the possibilities for the space to function, same attitude towards the façade organizations, and so on, in which the built environment represented itself as a common and similar non-contextual/global example for the solutions toward housing design. Furthermore, there was no chance to be observed for creating possible continuity among different settings existing in the context, but in more larger-universal scale, it expresses more similarity with the same built environments (for more detail items observed in the selected case, Table.6, Appendix A, B and C);

- ***Superficiality in Space (Transmitting Environmental Mode):*** Reduction of built environment to non-contextual understanding of the living environment (by considering the built environment not as an ontological act). Through having no physical integration with natural environment and other built environments (Detachment), the built environment selected as case, was observed by lack of physical continuity among different settings. The grid ordering system, introverted arrangement, simple repetitive formal additions and subtractions, privacy issues (Proximity), set of modular-similar forms, arbitrary arrangement of forms in terms of climatic considerations and so on (for more detail items observed in the selected case, Table.6, Appendix A, B and C), were identified through observation as the characteristics of the selected built environment under investigation wherein they played down the space to a superficial level of environmental and architectural understanding.

As it shown, the topics are descriptively worded and turned into categories. In this sense, by grouping the codes relative to each other, it is tried to show interrelationships between topics and emerged codes. Also, the codes were abbreviated for each category and accordingly alphabetized. Finally, the emerged codes have been assembled the data material relative to each category in one place and accordingly, illustrate themselves a preliminary analysis. By considering the emergent codes which were constructing the codes on the topics, the emerged codes were recoded and they were categorized into two main subthemes contain all previous codes;

- ***Capital-Power-Media Interconnection Systems (Technological Systematization):*** Prevailing this structural condition in the process of urbanization and assuring future proliferation of such environmental developments in the region through political economy of the region aiming to economic growth. In the process of the phenomenological observation, the roles of local policy, capital and interest and finally media have been realized through investigating and tracking the regional and specifically the selected case's interconnections toward creation an artificial building process and social stratification(for more detail items observed in the selected case, Table.6, Appendix A, B and C);
- ***Turbulence in Built Environment (Transmitting Environmental Mode):*** Creating turbulence in existing settings in order to build a non-contextual contrasting entity (by considering the built environment not as an ontological act). The process of turbulence has been introduced to put the topics in environmental mode of transmission in a group, and to identify the process turbulence according to the themes of

decontextualization, homogenization, and superficiality in a hierarchical order. It means that the setting has been observed through the mentioned environmental transmitting modes, and then, they finally call as turbulence in the environment (for more detail items observed in the selected case, Table.6, Appendix A, B and C).

Finally, by categorizing the subthemes and themes emerged according to the topics, the entire themes as the main themes of the this step have been realized as;

- ***Environmental Universality (Environmental Mode):*** introduced as the technological ordering process of built environment, including the mode of turbulence in the environment which is consisted of the process of decontextualization of built environment, homogenization of space and superficiality (for more detail items observed in the selected case, Table.6, Appendix A, B and C). in this sense, through the observation, the transmitting mode of the built environment has been realized as a universal mode without considering the contextual values through the process of decontextualizing, homogenization and superficiality happened in case designated;
- ***Building Machinery Systems:*** introduced as technological systematization process of built environment by considering the achievement of interplay of capital, interests, power and media through new urban development in the region and specifically in the case, as it was observed.

Table 6 : The Process of Coding the Data Materials, Categorizing the Topics and Generated Subthemes and Themes through Descriptions

Themes	**Building Machinery Systems**	**Environmental Universality** (Environmental Mode)		
	Achieving interplay of capital, interests, power and media through new urban development in the region	Transmission of the built environment into the universal mode without considering the contextual values		
Subthemes (2)	**Capital-Power-Media Interconnecting Systems** (Technological Systematization)	**Turbulence in Built Environment** (Transmitting Environmental Mode)		
	Prevailing this structural condition in the process of urbanization and assuring future proliferation of such environmental developments in the region through political economy of the region aiming to economic growth	Creating a turbulence in existing settings in order to build a Non-contextual contrasting entity (by considering the built environment NOT as an ontological act)		
Subthemes (1)	**Gated Community** (Setting)	**Decontextualization of Built Environment** (Transmitting Environmental Mode)	**Homogenization of Space** (Transmitting Environmental Mode)	**Superficiality in Space** (Transmitting Environmental Mode)
Codes	Socially and physically isolated built environment (gated community) through privatizing the space and place aiming use of exclusivity of space	Decontextualization of natural setting to Non-contextual contrasting entity (by considering the built environment NOT as an ontological act)	Reproduction of similar physically and socially homogenized qualities (by considering the built environment NOT as an ontological act)	Reduction of built environment to non-contextual understanding of the living environment (by considering the built environment NOT as an ontological act)

In following pages, the emerged themes and subthemes together with their descriptions can be considered. In this process, the interconnection between themes subthemes and issues of modern technology also has been analyzed (Appendix C), and subsequently, added to the descriptions. Here, there is sample of interrelation provided in between the environmental modes and problems of modern technology (Table.7). It has to be stated that, the emerged codes, subthemes and themes on the topics (first-order constructs), by addressing a larger theoretical perspective in this study, are basically aimed to relate to the themes of the research introduced as second-order constructs (derivative list of mediations) in the step five.

Table 7 : Analysis on Interconnection between Themes, Subthemes and Issues of Modern Technology

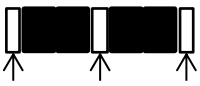
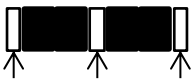
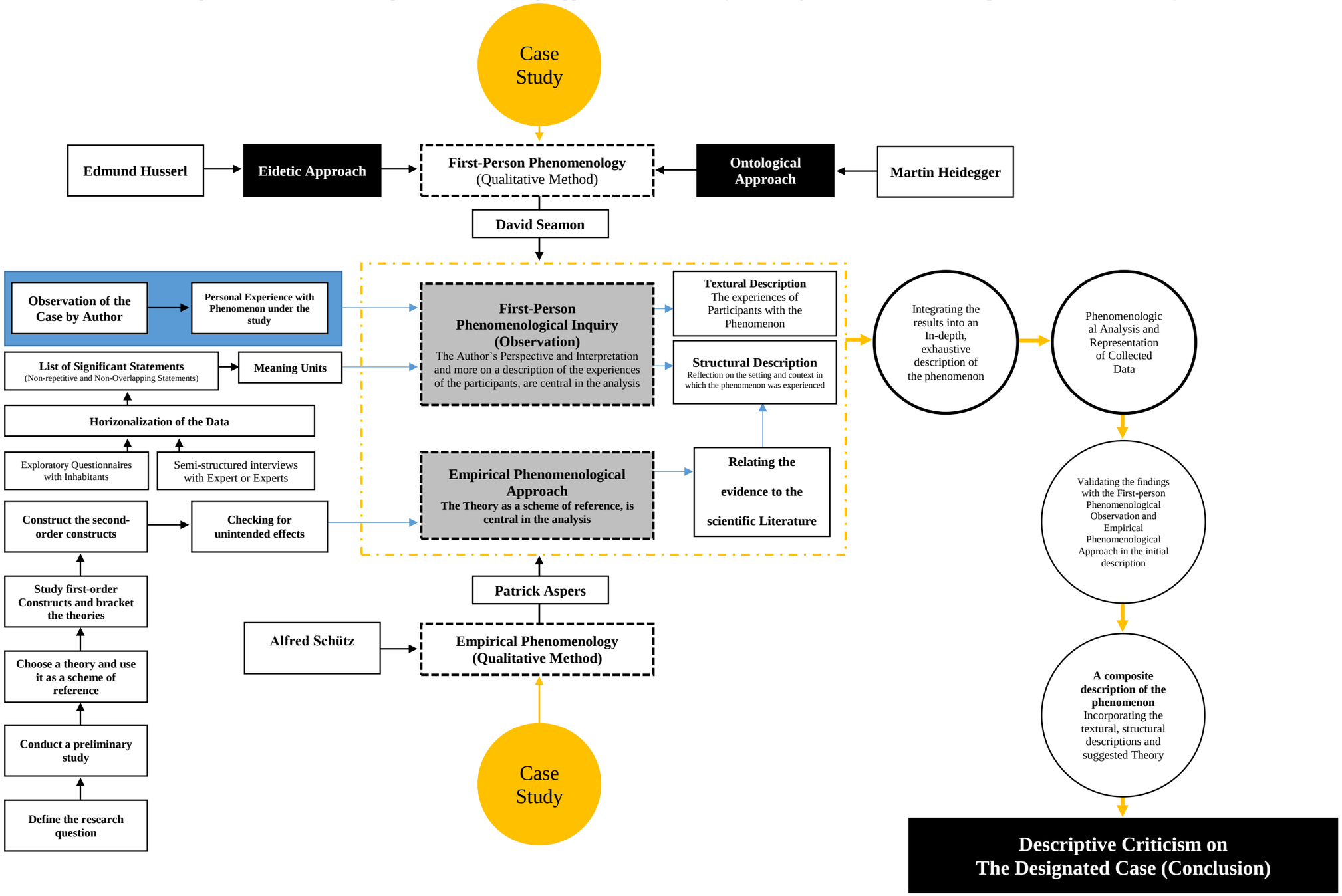
<table>
<tr><td rowspan="2">Problems of Modern Technologies (Themes)</td><td colspan="2">Normative</td><td colspan="2">Interpretive</td><td>Descriptive</td></tr>
<tr><td colspan="2">Indicators (Codes)</td><td>Subjectivities</td><td>Observations</td><td>Examples
Analysis On the Case</td></tr>
<tr><td>Rationality and Artificiality</td><td>Presenting mechanics as a powerful influence for all that is unconstrained or irrational</td><td>Generation of Norms for Production</td><td>Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.</td><td>2. The different spaces and their organization, as spatial components of residential units are designed and constructed generally accepted as spatial norms in different contexts, without considering the local spatial qualities existing in local settlements which can be considered as a source of inspiration.</td><td>Sandy Apartments (1+1, 56-62m2)
 
 
 
Aqua Apartments (2+1, 92m2) and (1+1, 45-56-62m2)
 
 
  </td></tr>
<tr><td colspan="5">Textural Interpretation:
Technological rationality represents itself through reproduction and repetition of similar spatial organization of archetypes as accepted universal norms in the built environment (Homogenization+Decontextualization).</td></tr>
</table>

Table 8 : First-person Method towards Empirical Phenomenology applied to the Field Study according to Seamon (2000) and Aspers (2009) instructions (By Author).



5.3.5 Step Five: Construction of Second Order Constructs (mediations)

Creating or utilizing a theory implies that the research delivers second-order constructs in connection to the actor's first-order constructs. The second-order constructs must convey in two bearings. From one viewpoint, they should agree to the interest of subjectivism; they should be reasonable to the actors within the field. Then again, they should be associated with existing scientific theory and be reasonable inside mainstream. Both measurements are vital, however the association with the first-order constructs of actor can never be discarded in an absolutely exact phenomenological clarification, in other words, an explanation grounded in the comprehension of the actors or phenomena investigated. This interpretation focuses on the part of second-order constructs as an approach to relate and assess the scheme of reference the study has chosen. The second-order constructs, or the records of records, can be theoretical notions of a current theory. As mentioned, but, there must dependably be space for adaptability and the second-order constructs may likewise be constructs created and authored by the research. The connection between empirical material (first-order construct, literary material and different types of data) and the theoretical level, the second-order constructs, is very much portrayed in the extensive assemblage of writing qualitatively on subjective techniques and investigation (Aspers, 2009, pp. 6-7).

In this concept, the theory allows the research to reach a certain points of empirical domains in order to address certain themes and explore more certain questions (step three). Now, by the three themes constructed in the previous steps, the list of mediations can be identifying under the categorization of themes with regards to theoretical frameworks of research actors.

Table 9 : The Derivative List of Second-Order Constructs (mediations) and Bracketing down the Scheme of Reference

Characteristics of Modern Technology	**Issues of Technological Instrumentalization**	**Levels of Meaning in architecture**
-Rationality and Artificiality -Automatism of Technological Choice -Self-Argumentation -Monism -Technological Universalism -Autonomy of Technology	-Decontextualization and Systematization -Reductionism and Mediation -Autonomization and Vocation -Positioning and Initiative	-Recognition of Form -Recognition of Status -Recognition of Use -Recognition of Human Function -Recognition of Building Function -Recognition of Purpose -Recognition of Value -Affective Meaning -Evaluative Meaning -Prescriptive Meaning

In this regard, the autonomization and vocation, positioning and initiative, as issues of issues of instrumentalization, are considered as the items out of the scope of this research, because they are explained in the context of theory of media by Habermas. The first two items of instrumentalization are focused because they are explained and fitted over the Heideggerian notion of enframing.

At this step, after giving the real value to derivative list of mediations from scheme of reference (theories), they have been delivered to the level of evaluation in the case. So, they are available to be examined empirically by the researcher. The levels of method inquiry and conduction of data collected in the case have been deliberatively described in chapter six. In this regard, data has to be collected from the individuals who have experienced the issues emerged from instrumental

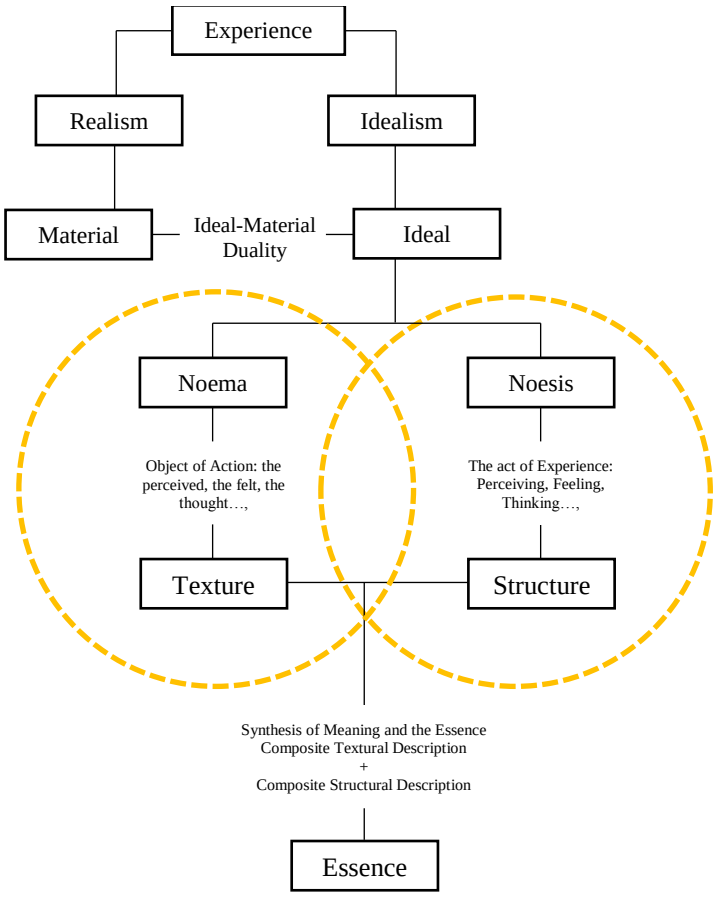
perspective of technology (phenomenon) in the built environment. Consequently, by considering firstly the characteristics of modern technology in the built environment, the subjectivities and evidences observed are recorded. By decoding them into several textural structures, they have been examined in the pattern of the issues of technological instrumentalization; they have been kept if they met the issues in philosophical ground and also in the realization of the issues. But, others textural structure also remained to support the main structure. Furthermore, they gathered to construct a unique textural explanation of the phenomenon observed in the built environment subsequently, the coded textural structure also delivered to be examined in the level of lived experience of inhabitants and the architect.

This step has been done by turning to the discussions on phenomenon in theoretical framework and it has been completed by site inspection, phenomenological observation and interpretations done by researcher. In the second step, the data collecting process has been done by distributing questionnaires in between several persons who have experienced the phenomenon, that in the case of this research, the residences of Royal Sun Residential-Recreational Complex have been chosen to answer the questionnaires. By getting the results from the questionnaires, at this step, also researcher has done interview with the expert who was involved with the process of design and construction of the complex (Table.8).

Subsequently, in the third step, the researcher analyzed the collected data in the first and second steps, and by applying a reduction process on the collected data, and then, he finalized the process of empirical towards the phenomenon by significant statements and concludes with the combination of the resulted statements on the phenomenon. Following that, the researcher has aimed to develop textural and

structural descriptions of first-person lived experiences in order to convey entirely a holistic essence of the lived experience (Table.10).

Table 10 : The Phenomenological Concept of Experience (Yuksel & Yildirim, 2015).



At this step, through this process, by using the mentioned methods of inquiry in following pages, the relevant research subjectivities were shared with participants to get their supports or reactions. Here, it is the list of bracketed items as subjective meanings which have been considered.

In relation with the main theme, environmental universality and the technological ordering process of built environment, these subjective meanings have been sketched;

- Contradictory Environmental Entity in Physical and Social Dimensions;
- The Inhabitant's Isolation of the Social Mechanism in the Region;
- Urban Segregation;
- Sense of Placelessness;
- Scenography and Modern Commoditization.

And in addition, with regard to the main theme, building machinery system and the technological systematization process of built environment, the items belw have been considered;

- Developer's Effect upon Local Politics;
- Enclave Neighborhoods as Worldwide Phenomena.

As it was mentioned, the inquiry methods below have been employed to survey those subjectivities emerged in this qualitative research.

- **Mixed-Questionnaires:** by mixing open ended and close ended forms of questions about the results coded in the first and second observation, crossed-questions have been asked from inhabitants of the case aimed to bracket down the subjectivities of the research about the results referring to non-discursive meaning in the built environment;
- **Semi-structured Interview:** A semi-structured interview has been done with the expert person who has been involved with the process of design and

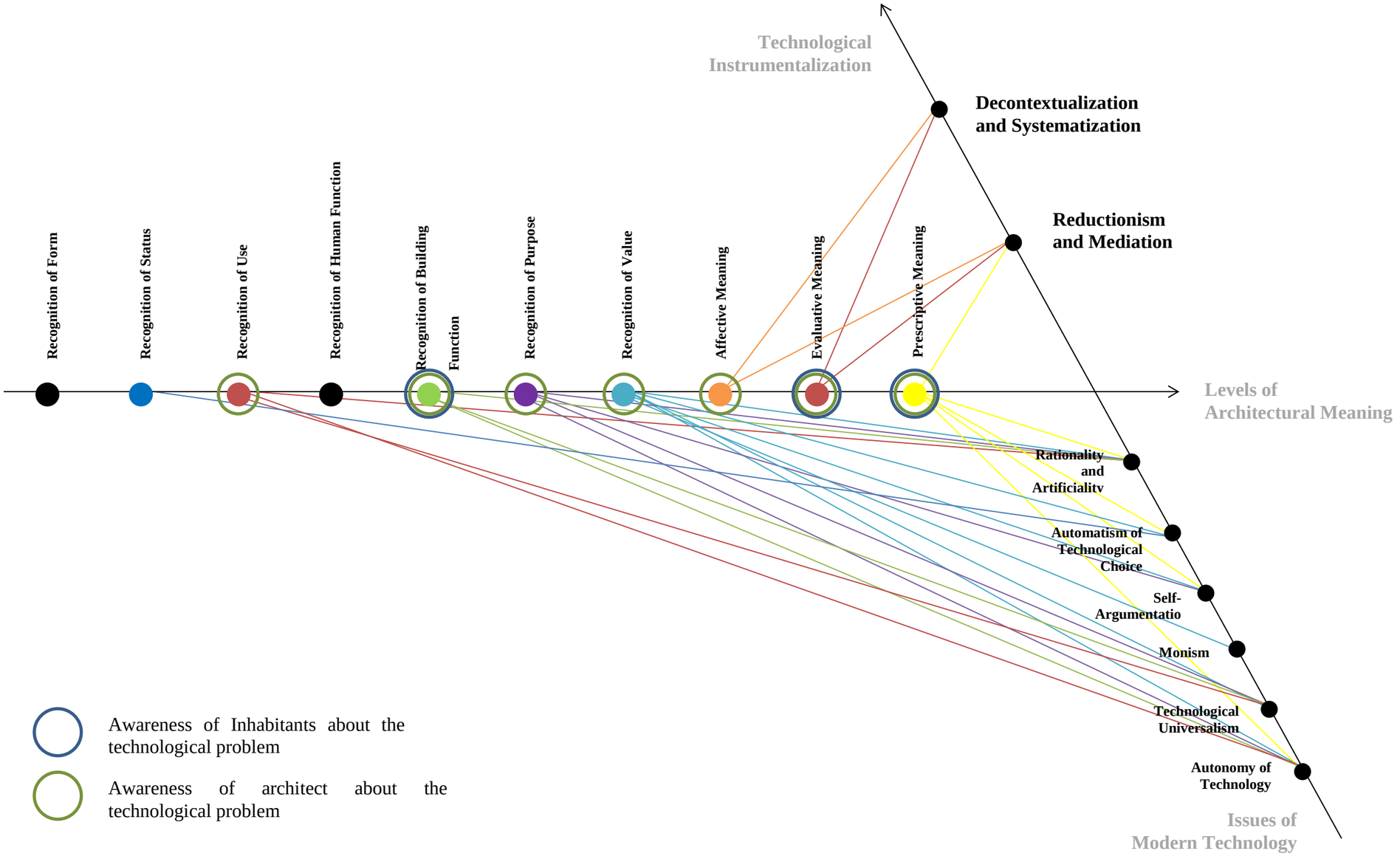
construction of the project, for the items coded from the observations and questionnaires. Through the process of implication and writing down the results, according the agreement written in consent letter, the identity of interviewee has been kept hidden.

By considering the non-formal/non-discursive communicative method of architecture (semiotics), in which architecture is allocated as a metaphor rather than a language, architectural discipline is assumed more connected with actual conditions and experience of human being through architectural space. Here, the important issue that non-discursive confronts, is its dependence on trust of the audience's receiving talent and interpretation, while the final form of the living environment is affected by functional, historical, social and political concerns and in the case of this research, the pervasive instrumental-anthropological conception of modern technology and its created atmosphere upon the human autonomy in the process of building the environment. In this context, particularly nowadays, the role that architecture undertakes for transferring the universal meanings is important. It is also specified by pervasive transformation and the rapid changes in opposite to permanent contextual values. In this regard, the role of modern technology and instrumental conception towards technology can emerge itself in these meaningful non-discursive communicative structures in architecture.

In this regard, through bracketing out the subjective meanings, the articulations of mediations were also resulted with accordance to the theory, and supports-reaction of the expert and inhabitants (Table.11). In this table, as it is illustrated, the articulation in between all levels of meaning asked from the expert and inhabitant are shown with the problems of modern technology, and consequently, the issues emerged by

technological instrumentalization. As it can be seen, architectural meaning in regard to the recognition of form and recognition of human function are achieved in this case, however, other levels of meaning more or less are neglected or not being perceived by the expert and inhabitant by considering the issues of modern technology. in the case of recognition of building function in representational level of architectural meaning, both types of participants are mostly agreed with the research assumption that architecture of the selected case has been directly influenced by the characteristics of the modern technology and technological instrumentality. Together with, two entire levels of referential architectural meaning were similarly influenced and not being taken into the consideration by technological process of building this environment. In general, it has to be stated that, Table.11 demonstrates qualitatively the awareness of the expert and inhabitants of the built environment about technological problem emerged behind their lived experience in the build environment in which they live in.

Table 11 : Articulation between Problem of Technology and Architectural Meaning



Awareness of Inhabitants about the technological problem

Awareness of architect about the technological problem

5.3.6 Step Six: Check for Unintended Consequences

At this step, the main question is to concern unintended consequences of the step five. The essential thought is that unintended outcomes are ordinarily impacts of activities that have certain expected results as objectives. The connection of meaning to unintended results is not generally an alternate procedure from the connection of meaning. One distinction is that a result, which the actors see as uninteresting, might be extremely intriguing to the researcher, since actors and analysts have diverse skylines of interest (Aspers, 2009, p. 7). Another distinction with unintended outcomes is that it is frequently the analyst's undertaking to set up the link(s) between actors' points of view on the acts and the path in which these demonstrations identify with the impact. Consequently, the actors themselves can't predict nor even envision the full results of their acts (Husserl, 1954, p. 237).

5.3.7 Step Seven: Relate the Evidence to the Scientific Literature and the Empirical Field of Study

Finally, as the last step of the empirical phenomenological approach, it concerns the relationship between the experimental confirmation that a phenomenological study produces and the current theoretical scheme of reference and experience of actors in the field. To defend the subjective point of view, it might be valuable to permit individuals from the field read an examination report (Aspers, 2009, p. 7). In this research, it has been achieved by getting help from the academician who are supervising this research.

5.4 A Practical Implication in the Field

In this approach to the phenomenon of instrumental-anthropological perspective of technology, the progression made by empirical phenomenology over past steps to do phenomenological study can be condensed in four focuses mentioned below;

- It is firstly empirical;
- It makes utilization of and incorporates theory in experimental examination;
- It checks for unintended outcomes;
- The iterative character of the procedure is intended to abstain from being blindfolded by speculations and theories.

Indeed, the empirical phenomenological approach is most recognizable in how the research approaches its field; however there are additionally some experimental implications, which regardless might be acknowledged. By keeping in mind the beginning steps of empirical phenomenology as explained: clarification must record for actor's first-order constructs. This implies while the strategies utilized by the analyst may differ, they should defend the subjective point of view. Consequently, the study cannot just utilize the observations -they should be joined with the participation of the one who experienced the phenomenon in the built environment. Moreover, it means that the empirical phenomenological actually requires verbal cooperation with those concentrated on their lived experience of the phenomenon as well. In this sense, meaning is basically transmitted by words, for which interviews and questionnaires are generally reasonable.

Regard to this, meaning, be that as it may, is not just transmitted by words; words likewise expect meaning in collaboration and practical work. Consequently, the study profits by watching the circumstance or the participants considered, and in a perfect way, one consolidates observations with questionnaire and interviews (Aspers, 2009, p. 7). Only utilization of observation can identify mistakes, therefore, comprehending requires a setting of observation, and questioning through questionnaires and interview (Schütz, 1976, pp. 167-176; Aspers, 2009, p. 7).

5.5 Summary of the Chapter

In this chapter, firstly, the necessity of considering the phenomenological method of research for this study is discussed; also, the phenomenology has been discussed and identified as philosophy, a theoretical paradigm in post-modern era and finally as a research method. Subsequently, the firsr-person approach toward empirical phenomenology is introduced as field study of the research, including seven steps of the field. In these steps discussed, the research question, theoretical framework as scheme of reference, the derivative list of mediations, second-order constructs which assist the researcher to develop the theory and description, and the practical implication of empirical study in the case containing observations, questionnaires with inhabitants in the built environment and the interview with the architect have been deliberatively discussed.

In following chapter, the implication of the field method and derivative list of mediations on the case of Noyanlar Royal Sun Residence complex will be explored in order to emerge themes, subthemes and codes as first-order constructs of this study.

Chapter 6

PHENOMENOLOGICAL METHOD OF INQUIRY AND CONDUCTION ON CASE STUDY (PRACTICAL IMPLICATIONS ON THE CASE)

6.1 Sample Selection: Noyanlar Royal Sun Residential-Recreational Complex

In order to have an empirical study on the phenomenon of instrumental perspective of technology and furthermore, exploring its impacts on the context of architecture, the most recent and ongoing project by Noyanlar Construction Company has been selected in the Long Beach, Central sub-district of Yeni Iskele. As a sample of case study, aiming to exploring and evaluating the indicators of defined problem(s) in the emerged list of mediations and the resulted theoretical framework based on phenomenology, the first phase of Royal Sun Royal Sun Residential-Recreational has been chosen to be investigated, as new developing gated community in this region (Fig.28).

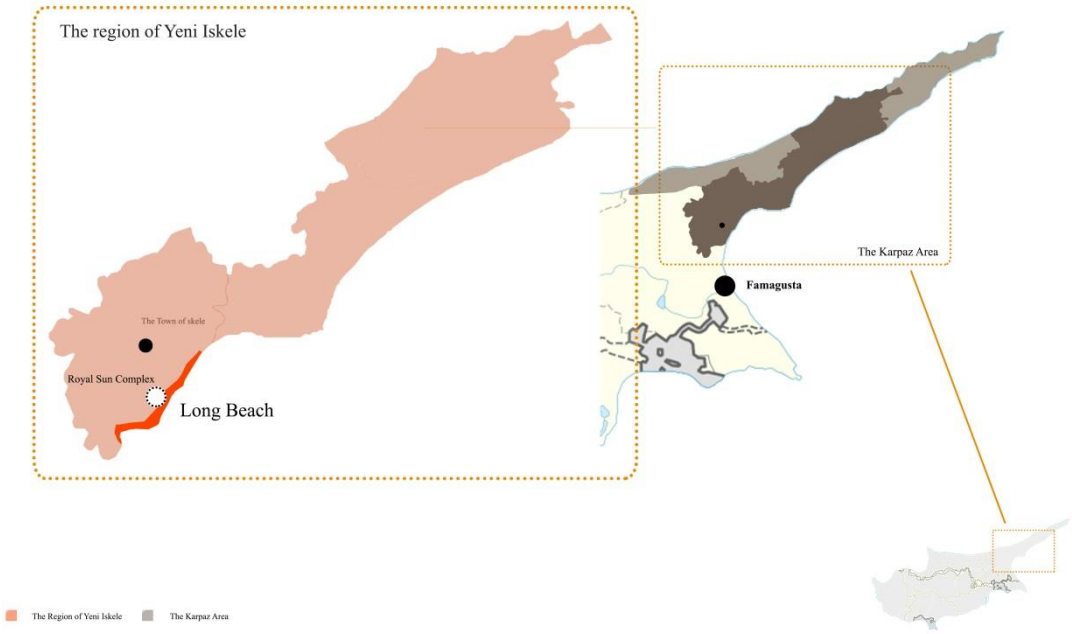


Figure 28 : Location of Long Beach and Royal Sun Residential-Recreational Complex in Central Sub-district of Yeni Iskele.

The southern shore of the Yeni Iskele, being less presented to prevailing winds, has more sandy shorelines which are much longer. Beginning from Famagusta to Iskele, up to Bogâz, a solitary shoreline strip extends along the coast for around 11 km including the Long Beach. The shorelines formerly Bogâz were for the most part utilized by Cypriots and are of little enthusiasm to outside vacationers, however, it has more attraction to the tourist and new inhabitants of the region nowadays. Long Beach is really a standout amongst the most delightful shorelines that Northern Cyprus brings to the table. The coastline in Long Beach can be portrayed by its amazingly clear sea and wide sandy strip that extends along a 3 km. It has just couple of minutes from the city of Famagusta and Bogaz, with various visitor destinations around the zone. Developing infrastructure of the coastline consists of sidewalks and bicycle lanes, café and restaurant, amphitheater and sport grounds.

Figure 29 : Long Beach's Coastline and New Developments of Infrastructures and Housing Complexes (Iskele Municipality, 2016).

Likewise, the property arranged here has as of now increased expanded attention from financial specialists and purchasers from all around the world. Due to increasing development of the area based on physical characteristic of the region, the acquirement of real state in Long Beach is considerable not only a new purchase for new inhabitants, but also a reasonable investment for the future according to the growth rate of the region (Fig.29).

In such area, Royal Sun Royal Sun Residential-Recreational is introduced by Noyanlar Group as a large-scale project, situated on 70 acres of land and consists of 5 stages. This complex has varieties of seven different typologies of property to choose from, ranging from apartments (studios, 1+1, 2+1) to triplex homes (3+1). This study has been done, when the first stage has been completely constructed and the second one was under development. The complex as a gated community possesses security entrance, bicycle lane, walking path, leisure center, basketball &

volleyball playground, tennis Court, 3 outdoor swimming pools, 1 indoor thermal, swimming pool, wellness center, massage salon, fitness center, sauna, park, supermarket and other more facilities.

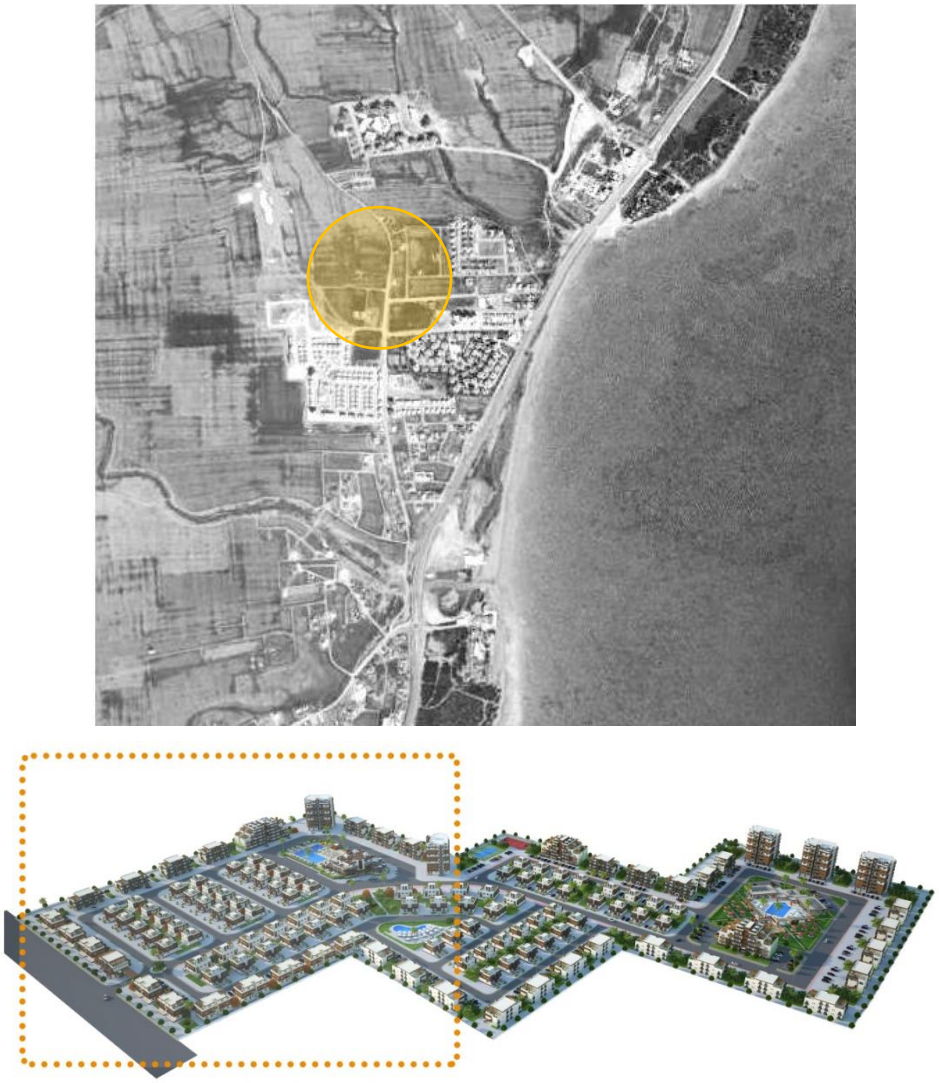


Figure 30 : (Top): Location of Royal Sun Residential-Recreational Complex in Long Beach, Central Sub-district of Yeni Iskele (Google, 2016). (Down): Royal Sun Residential-Recreational Complex in Long Beach, Central Sub-district of Yeni Iskele (Noyanlar Group, 2014).

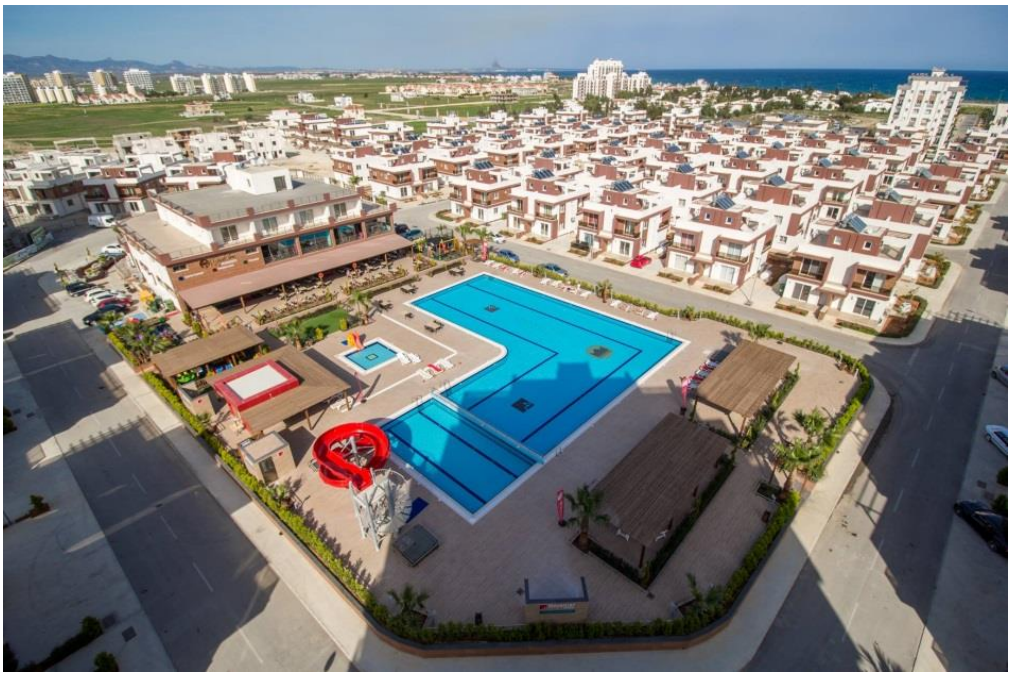


Figure 31 : Aerial Photo, from Southwest view,
Royal Sun Residential-Recreational Complex in Long Beach,
Central Sub-district of Yeni Iskele (Noyanlar Group, 2014).

6.2 Social Context and Physical Setting of the Region

6.2.1 District of Yeni Iskele

The aggregate Karpaz area is occupied a surface of 898 km2, relating to around 27% of the aggregate region of Turkish-Cypriot community in Cyprus. The density of population in Karpaz area, is of 26 occupants for each km2 (which is well beneath the average of 78 of the Turkish-Cypriot community), and is described by a great degree of unemployment and displacement of the young inhabitants to the cities (Rural Development Sector Programme, 2010, p. 5). In the Karpaz area, hence, the region of Yeni Iskele can be investigated in south east part of the area. As the largest settlement, the region of Yeni Iskele is situated at the intersection point of main road of Famagusta towards Dipkarpaz. Furthermore, to clearly define the geographical coordinates of the region, it can be stated that the borders of Yeni Iskele region identify the outskirts Geçitkale toward the east and Famagusta toward the south.

Also, Bogâz, as one of its waterfront towns in the region is viewed to the entryway of the Karpaz Peninsula (Fig.32).

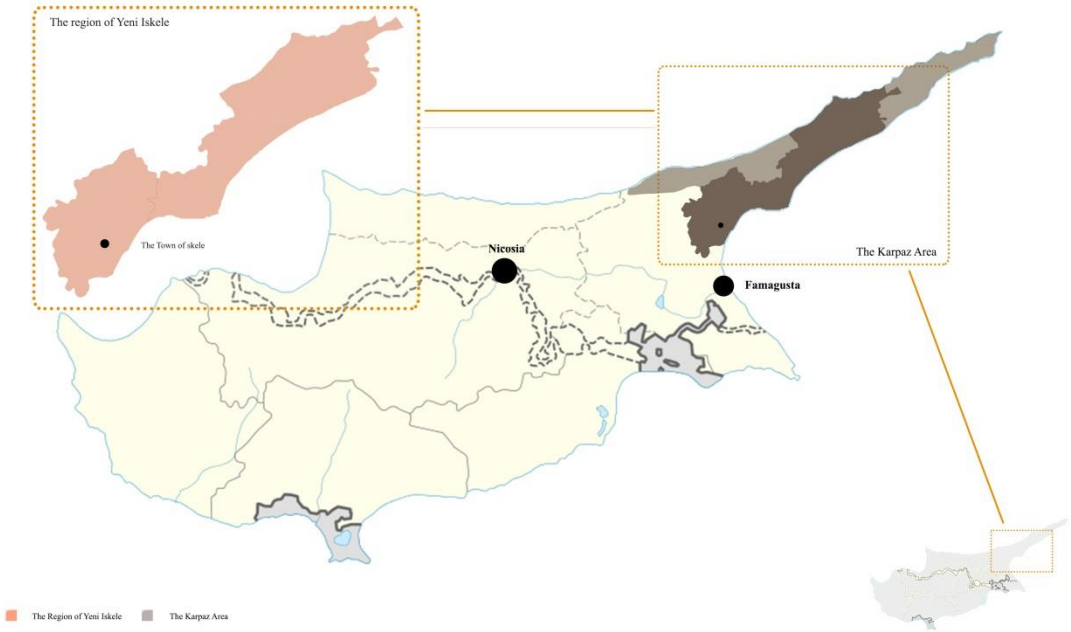


Figure 32 : The Location of Karpaz Area and Yeni Iskele Region in Cyprus.

The region formerly has been called Trikomo by old inhabitants- however, the region is still known in this name by various individuals and it means three house in Greek language. It was a common for the region, since the de facto partition of the island to north and south has been happened caused by the 1974 political conflicts in between two major Turkish and Greek ethnic communities of the island. As Consequence of the conflict and separation, in 1974, the Turkish-Cypriot subjects of Scala- known as Iskele in Turkish- located in coastal town of Larnaca, had to flee from their own homes. Therefore, with regard to 1974 Cyprus Peace Operation, the Turkish community of Larnaca had been immigrated to North side and subsequently, they were domiciled in Trikomo coastline in 1975. From that period of time, the region of Trikomo was renamed as Yeni Iskele, hence it literally means New Scala. To reflect the origins of the region's current inhabitants, the name Yeni Iskele in Turkish,

representatively is an indication of the migration of Turkish-Cypriots from the Turkish quarter of Scala in the city of Larnaca on the island's south drift, where they had been living in since the political conflicts happened in 1974.

6.2.2 Characteristic Features & Understanding Regional Environmental Factors in Yeni Iskele District

To investigate the physical structure of the region, as it has been defined in Local Development Strategy of Karpaz area, the Yeni Iskele district is geographically the long peninsular piece of land extending out from the north eastern side of Cyprus and directing towards Syria and Lebanon. This territory has a specific and particular mix of rich, assorted and significant normal and noteworthy natural and historical heritages. This legacy which has a delicate and fragile structure is under pressure from uncontrolled foundation advancement, financial exercises, disregard, quarrying and different treats (Rural Development Sector Programme, 2010, p. 3).

Together with, in order to be informed generally about demographic structure of the region, as it is published by TRNC State Planning Organization, The region of Yeni Iskele as the largest settlement with total population of 22492-according to 2011 population census- is located in between Famagusta and Karpaz in northern east of Cyprus. After 1998, by separation of the region from Famagusta District, the Iskele region has been declared as a district and afterwards, it was divided into three major sub-districts, including Iskele Central sub-district with population of 7906, Mehmetçik sub-district with population of 6610, and Yeni Erenköy sub-district with population of 7976 (TRNC-SPO, 2013) (Fig.33 and Table.12).

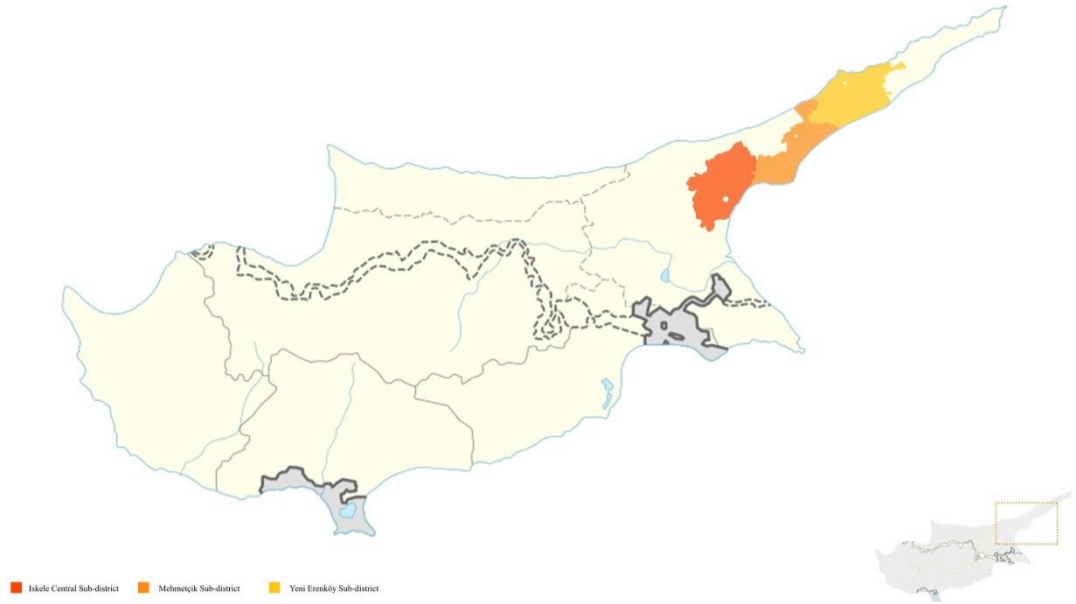


Figure 33 : The Division of the Yeni Iskele Region into Three Sub-districts and Their Locations (Rural Development Sector Programme, 2010).

Table 12 : 2011 Population Census of Yeni Iskele District

District	TRNC General Population And Housing Unit Census 2006	TRNC General Population And Housing Unit Census 2011
	Total Population	Total Population
Yeni Iskele District	21,978	22,492
Iskele Central Sub-District	8,198	7,906
Mehmetçik Sub-District	5,689	6,610
Yeni Erenköy Sub-District	8,091	7,976

The region of Yeni Iskele is situated on eastern coastline of the island, called Mesaoria plain. Today, the town of Yeni Iskele has approximately nineteen kilometers distance from the city of Famagusta and two kilometer away from Famagusta bay. It also has roughly fifty kilometer distance from the capital city of Nicosia. In general, according to Karpaz Local Development Strategy the Karpaz

area (Rural Development Sector Programme, 2010, p. 8), by focusing on infrastructures of the area under modernization, until recently,it has been inadequately associated to the rest of the island by tight roads. This detachment has added to the safeguarding of its surroundings yet has influenced its financial and tourism improvement.

The geography of the region of Yeni (New) Iskele is mainly characterized by a remarkable mix of mountains, fields and shorelines. In this region, the natural environment almost has not been marred by development till the new touristic and housing developments rapidly began. From a physical-Geographic point of view, the region of Yeni Iskele can be described included the points below;

- The Yeni Iskele district legitimately highlighting the sliding southern end of the Pentadaktilos/Besparmak mountain range which runs parallel toward the northern shore of the island and opens up into an extensive interior area with slopes, slants and valleys and finally eastern coastline of Mesaoria. Sodden while the southern incline, extending towards the district focuses of Büyükkonuk and Mehmetçik sub-district of Iskele, is drier in comparison with the northern slope of Besparmak. Drawing closer to the tip of the Peninsula, where the Iskele's sub-district of Yenierenköy and also Dipkarpaz are found, the scene turns out to be essentially bumpy with little valleys and good countries and finishes at cape Apostolos Andreas/Zafer Burnu (Fig.34).

- As mentioned, the southern base of the Peninsula opens up into the substantial Mesaoria plain. Here is based the town of Iskele which is region’s

center. Moreover, it has to be stated that starting from Bogaz, traditionally considered as the gate of the Karpaz Peninsula.

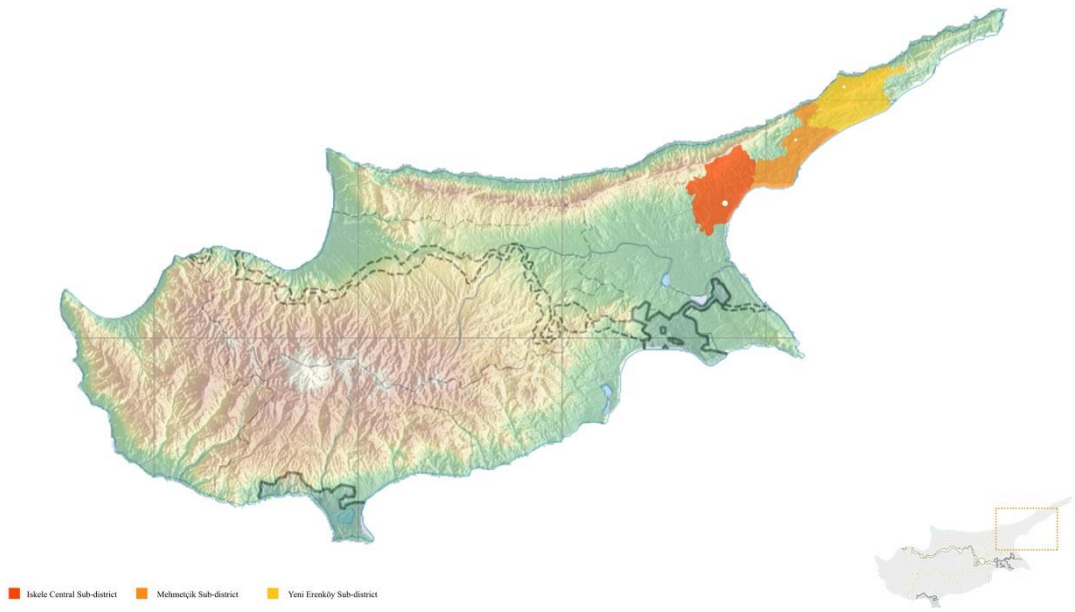


Figure 34 : Topographic Map of Yeni Iskele Region.

The climate is somewhat cool and blustery in winter and hot and dry in summer. The normal yearly precipitation of the territory is between 455-506 mm as indicated by records of the meteorological station of Yenierenköy sub-district. The highest rainfall is amid December/January, the least in August. The prevailing winds amid the winter are from north and north-west while amid mid years south and south-easterly winds predominate. Particularly, the region of Yeni Iskele is known for its unspoilt landscapes and wild environment, including the bow shaped coastline and the north part of the wide plain of Mesaoria.

As it can be investigated in the chart below, resulted from the statistics released by TRNC State Planning Organization, the town of Yeni Iskele or Trikomo consisted almost entirely of Greek Cypriot majority from 1831 to 1973. Ottoman census of

1831 indicates that, Turkish Cypriot formed nearly 18.4% of the population of the region, although, by 1891 this rate dropped altogether to 3.4%. Subsequently, amid the main portion of the twentieth century, in between 1901 to 1960, the number of inhabitants in the town relentlessly expanded, from 1,247 to 2,195. In 1974, large portions of the Greek Cypriots of Trikomo were uprooted, albeit some stayed in the town after the region has been taken under control of Turkish armed force. In October 1975, there were 92 Greek Cypriots as yet staying in the town, but they were moved toward the south side of the Green Line till 1978. Right now, similar to whatever is left of the dislodged Greek Cypriots, the Greek Cypriots of Trikomo are scattered all through the island's south, with little pockets in towns. According to 1960 census, the quantity of Trikomo Greek Cypriots living in Trikomo who were dislodged in 1974-78, was roughly 2,323 (Table.13).

Table 13: Analysis on General Population of Yeni Iskele's town according to the censuses recorded from 1831 to 2006

Years	Turkish Cypriot	Greek Cyoriot	Others	Total
1831*	37	164	-	201
1891	37	1044	-	1081
1901	15	1247	-	1262
1911	9	1492	-	1501
1921	9	1690	-	1699
1931	3	1801	-	1804
1946	6	2081	-	2087
1960	7	2188	-	2195
1973	-	2323	2	2325
1978	1669**	-	Ns	1669
1996	2814**	-	Ns	2814
2006	3657**	-	Ns	3657
* in 1831 census only males were counted ** De jure population (including other nationals)				

As mentioned about current inhabitants in general, the town is occupied by uprooted Turkish Cypriots from the island's south in majority- particularly from the Larnaca area and the city of Larnaca. In addition, in between 1976 to 1977, A few families from Turkey, essentially from Adana region, likewise settled in the Yeni Iskele. Throughout the most recent ten years, numerous subjects from European and Middle East countries, Turkish nationals and wealthy Turkish Cypriots from somewhere else in the island's north, counting returnees from abroad, have additionally purchased property, constructed houses, and settled in the vicinity of the town. According to the 2006 census, the population of the region has been put at 3,657.

6.2.3 Historical Background of Regional Development of Yeni Iskele

The region likely, can be considered as one of the initial region occupied in Cyprus because of its closeness with the Asian landmass, additionally brags an abundance of social, cultural and historical heritages that in any case shape the domain, including Antique period, Roman, Byzantine, Medieval, and so forth. These outstanding natural and historical heritage resources are so far to a great extent undiscovered in financial terms. The detachment of the Yeni Iskele region in time, that has on one side secured its surroundings and the nearness of new various societies has on the other side, influenced the nearby populace which is one of the poorest in the island. The main authentic, religious and social components that supplement and backing the main tourism, spoke to by the aforementioned environmentally well preserved all around the region (counting the shorelines), are the accompanying. In the focal point of the town of Iskele, stands the tiny Dominican chapel of Ayios Iakovas or church of St James which has been preserved from 15th century. This chapel is supposed to be one of the smallest and most appealing houses of worship in the island (Fig.35, Left). Panagia Theotokos Church (Blessed Virgin Mary), preserved by the

Department of Antiquities in 1991, is located in the town of Iskele as the main church of the village. It was inherited from the 12th century as a solitary aisled, domed church with arched breaks to its side walls. This is a common style for churches constructed in that period of time in the island. it incorporates wall paintings which are uncommon case of the medieval workmanship design in the island and a gathering of symbols having a place with this congregation and originating from different parts of the Turkish-Cypriot community. It has been inaugurated after restoration process as Icon Museum and the main attraction of the town (Fig.35, Right).

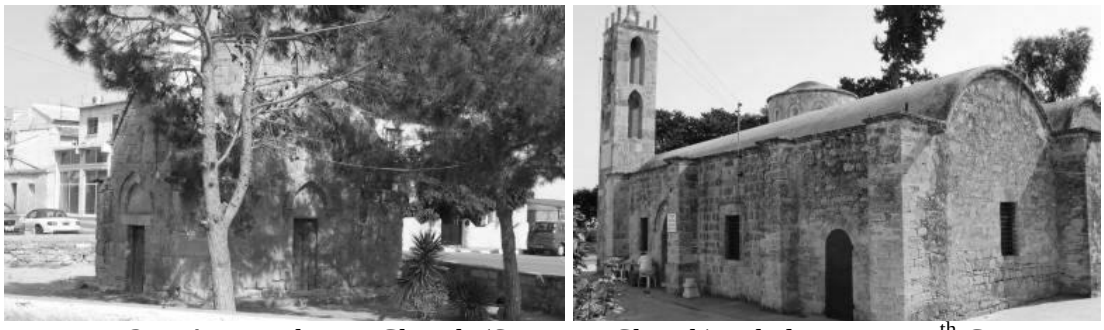


Figure 35 : Ayios Iakovas Church (St James Church), Iskele Town, 15th Century (*Left*) (Whatson-Northcyprus, 2016). Icon Museum (Panagia Theotokos Church), 12th Century (*Right*) (Whatson-Northcyprus, 2016).

Figure 36 : Kantara Castle, Lusignan and Venetian Period, 12th century to 15th century (Whatson-Northcyprus, 2016).

Ayios Philion, the 5th century complex, incorporates a basilica peristyle court, a clerics place, and different structures that were based on the establishments of prior

Hellenistic and Roman structures including a port. Nearer to the region of Karpaz, Kantara castle monitors the passageway to the peninsula. Remaining more than 630 meters above sea level, the majority of the structure confronts east. From its most astounding watchtowers you can clearly see the panoramic view of the plain. In the Lusignan and Venetian periods-which lasted from 12th century to 16th century- the manor was the site of numerous fights. In spite of this, a portion of the structures are in great condition, for example, the southeast tower, sleeping quarters, postern entryway and upper east bastion (Fig.36).

The Yeni Iskele region gloats a considerable number of other historical and archeological stopping places to be more investigated and protected, as well as numerous others that are most likely still to be found and to be surveyed. More importantly, Aside from the Iskele Icon Museum, the Kantara Castle and the Ayias Trias basilica which are monitored and protected all the staying known and lesser known recorded and social locales are absolutely not valorised and protected.

6.2.4 Current Regional Development in Yeni Iskele

According to Karpaz Local Development Strategy the Karpaz area (Rural Development Sector Programme, 2010, p. 8), currently, there are two imperative road improvement/expansion ventures in progress in the region. The Tatlisu/Büyükkonuk road crossing the Besparmak that encourages tourism trade amongst Bafra and Kyrenia ranges, and additionally the last seven km of the street guiding to Dipkarpaz, that will enhance the association of the Karpaz peninsula with the rest of the island and diminish its disconnection. There have been anyway a few reactions on the environmental impacts of the road development. Together with, In the course of the most recent years, the region of Yeni Iskele has been focused by several real estate developers for new residential facilities for the outsiders' market.

The late world economic downturn and the particularlt, northern side of Cyprus property stbacks have hit scarcely the land market.

The advantaged area (amongst Famagusta and the Karpaz Peninsula) together with the trust of an answer for the Cyprus political issue, as mentioned, has pulled in the most recent ten years a huge number of property speculations (second houses, resorts and gated residential complexes) – that has converted a vast part of the beach front strip into a urbanized build environment. In the central sub-district of Yeni Iskele, together with increasing the population habited in the region attracted by natural and historical features, development policies are not yet basically referred to the real strengths and opportunities. Indeed, they could generate the degradation of the rich resources of the region as it can be seen in the current conditions (Fig. 37).

Figure 37 : Aerial Photo from Long Beach, Central Sub-District of Yeni Iskele (Iskele Municipality, 2016).

Moreover, the neighborhood economy essentially comprising in tourism movement and property development sector has been distressfully hit by the general financial emergency and by the continuation of the detachment of Turkish-Cypriot

community. As an outcome, surrendered and semi-completed property improvements, are spread up and down the costal territory of the district and gives a distressing impression to the visitors.

Yearly population growth rate is around 2.4 %, and natural growth rate is 0.9%. In the towns, the monetarily dynamic populace (somewhere around 15 and 64 years) is lower than the Turkish-Cypriot community's normal, indicating that this populace section emigrates from the towns because of low livelihood opportunities and absence of adequate social and social facilities (Rural Development Sector Programme, 2010, p. 9). In this sense, it seems that the central sub-district of Yeni Iskele region has been faced a broad increasing population and vast changes in demographic structure in comparison with already released 2011 census. The variety of new inhabitants by means of their nationalities, social levels, being De facto or De jure population, can be precisely considered in socio-cultural studies. However, this research is aimed to investigate this phenomenon in general, and its indirect impacts to the built environment.

As the second municipality of the region, Yenierenköy sub-district outskirts the sub-district of Mehmetçik toward the west and the region of Dipkarpaz toward the east. The town center has the some open workplaces among which the tourism information office and a sizeable group of miniaturized scale promotion little organizations. The municipal territory is unevenly developed. It is monetarily more dynamic in the northern coastal zone (counting the town of Yenierenköy and the villages along the primary street Iskele-Dipkarpaz) while it is underdeveloped and agriculture-oriented in the south. In addition, as the third municipality of the region, Mehmetçik sub-district is situated toward the north-west of Büyükkonuk and south-

west of Yenierenköy. The town extends on a long uneven edge overlooking the plain and Mediterranean Sea, and is pleasantly invigorated by wind (Rural Development Sector Programme, 2010, p. 7).

6.3 Conduction of Field Method on the Case

Following this, the method of data collection is consisted of three main steps which have been applied to the built environment including different types of research participation between researcher, inhabitants of Royal Sun Complex and finally the architect of the complex. In the first level, by applying a phenomenological observation done by researcher, the main characteristics of modern technology, levels of meaning in architecture and issues of instrumentalization have been deliberatively explored through the mode of built environment. Finally, they are recorded and bracketed out into three main categories of 'no indications observed' (as they are not occurred), 'the facts' and 'the assumptions.' To have such a qualitative observation in this point, researcher as a complete participant has concealed his role and he has taken several field notes, sketches and photos in semi-structured way accordance with mentioned indicators that inquirer wanted to examine them in the built environment.

In this step, by regarding to the idea behind such a qualitative research, purposefully the inhabitants of the complex have been selected in order to assist the researcher through understanding better how the research problem and the research question show themselves within this particular field study in a phenomenological pattern. Subsequently, it has been done by distributing questionnaires about the resulted assumptions and subjectivities of researcher recorded during the observation. As the

third step, by considering the role of the architect in building such an environment, a semi-structure interview has been organized with architect.

6.3.1 Site Inspection: Observation on Environmental Mode and the Derivative List of Mediations

***Purpose**:* The purpose of the observation is firstly to investigate and experience the built environment of the case in order to have initial analysis for construction of first-order constructs. Furthermore, the list of mediation was considered including the characteristics of modern technology in the built environment. It was aimed to track the issues emerged by modern technology in the built environment based on instrumental perspective of technology. In this sense, the results of the observational notes were considered in this process aimed to figure out the correlations between the first results and the roles and presence of not neutral technology in the built environment.

Observation Questions: the action of environmental observation was formulated according to the question sorted below;

Who are the inhabitants of this built environment?

Who has constructed this built environment? And how this built environment has been constructed?

What are the main architectural formative and spatial characteristics of built environment?

What relationships does it have with natural environment? And what is its impact in natural setting?

How does this built environment communicate with existing social setting of the region? And how does this built environment communicate with existing surrounding built environment?

Observer (Participant): Researcher was in charge to do observation on the case as an architect. He participated in this process as an unknown person who intended to purchase a housing unit in the complex by getting help of other architecture graduate student who were connected with the construction company.

Data Collection: An inclusive built environment was observed for four sessions of inspection (approximately 90 minutes for each session, executed in fall 2015, winter 2015 and spring of 2016) as an unknown person in Royal Sun Residential-Recreational Complex in Yeni Iskele Central District aimed to explore the observation questions mentioned above. The observation contains recording methods of sketching, photography and also asking question from sellers in charge by the construction company. In this observation, the descriptive notes also have been taken. In this regard, in addition to the observation data collected through recording methods, the observer's thoughts and reflections were also recorded as may give account more to the descriptive notes. This descriptive field notes are field note proper containing a description of the physical context and the inhabited people's lived experience as much as the observer was able to communicate with them, including their behavior and non-verbal/non-discursive way of communication through the built environment.

Field Notes Proper of the Observation: Appendix (A) is included the coded field note of the first observation.

Analysis of Observation Results: This part consists of a brief analysis of observation results in order to conduct the themes and subthemes according to derived emergent codes of first-order constructs. The results emerged will be sorted out according to the observation dimensions and research questions. In the process of coding the data collected based on theory-related materials, the cutting- sorting method of resulting themes and subthemes has been applied on observational field notes. The emerged themes and subthemes of this qualitative research were described texturally in following pages.

6.3.2 Participation of Inhabitants in the Study: Mixed Questionnaires

By mixing open ended and close ended forms of questions –mixed questionnaires- about the results coded in the observation, crossed-questions have been asked from inhabitants of the case aimed to bracket down the subjectivities of the research about the results referring to non-discursive meaning in the built environment. By distributing more than 180 questionnaires in between inhabitants in the Royal Sun Residence complex, 55 of given back questionnaires were valid to take part in the analysis. In this regard, the questionnaires filled by the ones who were spending more than 6 months during a year in the complex, were kept for analysis and others have been eliminated (Appendix D). The 55 valid responses in the study have been analyzed in the chart below, according the nationality and age range of the participants.

Table 14 : Participants in the study according to their Nationality

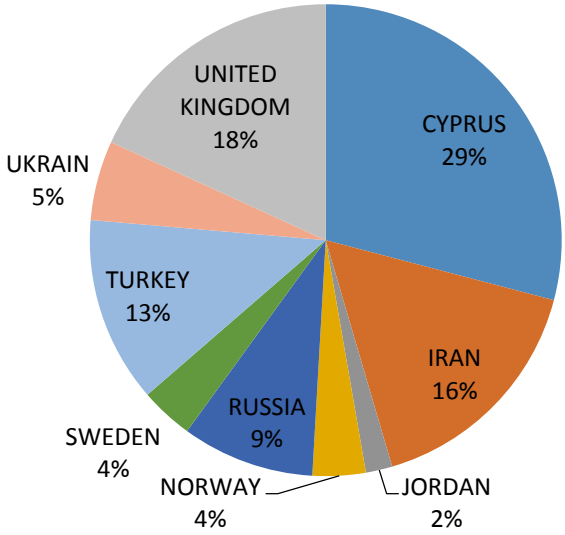
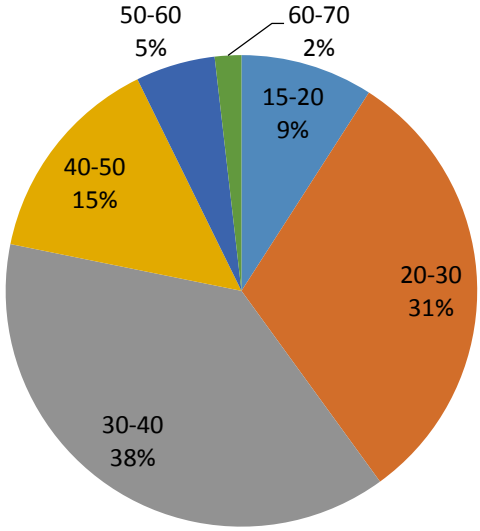


Table 15 : Participants in the study according to their Age Range



The results of this questionnaire survey will be given under heading 6.5 in following pages.

6.3.3 Participation of Expert in the Study: Semi-Structure Interview

A semi-structured interview has been done with the architect for the items coded from the observation aimed to bracket down the subjectivities of the research about the results referring to non-discursive meaning in the built environment. Through this

process, professional participant information sheet and consent form have been shared with the architect of the complex, and afterwards, the interview has been done (Appendix F, G and H). The results in relation to this interview are given under heading 6.5 in following pages.

6.4 Themes and Subthemes: Through Coding Process of Data Materials and Interpretations

6.4.1 Theme A: Building Machinery System

In the process of forming this built environment through a specific set of structural conditions, technological systematization was achieved by the coordination in between media, capital, power and technology. The accomplishment of interconnection in between these technological-rational systems was considered as the foundation of political economy of the Yeni Iskele district. It was concentrated on the underlying current of urban economic growth through achieving interplay of capital, interests and institutions for new urban development in the region and emerged as prevailing new structural condition in the process of urbanization and assuring future proliferation of such environmental developments. With regard to this broad participation, the rapid expansion of new structural condition explicated the role of the growth coalitions in which economic growth was promoted. In fact, this progressive coalition was not only achieved by the rentiers (Noyanlar Group as the real estate developers), but also, it is supported by politics, the local media, and other related technological systems which are predominantly fiscal. By identifying the Royal Sun Residence project as a gated community, it was aimed to condense the capital in this developing region, through representing this built environment with more universally organized atmosphere targeting new residents from different contexts to settle in this housing project. In this process, gated community as a model

of mass housing is concerned with regard to the process of socially and physically isolating built environment through developer's effect upon local politics for privatization of the space. In this regard, the emerged gated community presented itself acutely more homogeneous place, contributing to the spatial stratification of the urban setting. Regarding to the exorbitant role of technological systematization revealed upon this development, the process of forming such a specific set of structural conditions in this context, was supported by rational procedure of consolidating of technological systems and implanting them in the built environment by neglecting the values of natural and social environment through rationalizing its adjustment to the existing settings.

6.4.2 Subtheme A-1: Capital-Power-Media Interconnection Systems (Technological Systematization)

Through accomplishing coordination media, money, power and technology in the process of building new built environment, the pervasive interconnection between these technological systems emerged itself in construction companies which have taken responsibilities to construct new built environment. In this sense, Noyanlar Group can be considered as evidence to represent this coordination and technological systematization. The built environment, as a product, is also the representation of the coordination and interconnection emerged in between technological systems of media, capital and power through the process of technological rationalization and artificial framework of technological ordering process of building.

6.4.3 Subtheme A-2: Gated Community

By considering the political economy of the Yeni Iskele region, concentrated on the underlying current of urban economic growth through achieving interplay of capital, interests and new urban development in the region, the new gated communities were

identified including the Royal Sun Residence Complex. by interconnecting systems in between urban developers and municipality, prevailing this structural condition in the process of urbanization and assuring future proliferation of such environmental developments in the region, the Royal Sun Residence Complex has been introduced as a new housing project by the Noyanlar Construction Group which occupied 70 acres of land and it was planned to be constructed in 5 stages. Aiming to condense the capital in this developing region, through representing this built environment with more universally organized atmosphere, the new inhabitants were targeted from different contexts to settle in this housing project. In this process, gated community as a model of mass housing is concerned with regard to the process of socially and physically isolating built environment through developer's effect upon local politics for privatization of the space. In this regard, the gated community emerged presented itself acutely homogenized place, contributing to the spatial stratification of the urban setting. Through the spatial stratification existing in the Royal Sun Residence Complex as a gated community created a significant social disadvantage for the larger society in the Yeni Iskele district, because the social homogeneity- especially in terms of financial classification- within this built environment is dominantly higher than outside of this complex and consequently, it results to increase in urban segregation.

6.4.4 Theme B: Environmental Universality

Technological ordering the environment reduced the role of humans into the subject of the technological progression in a manner that technological autonomy has made the living environment more and more independent from the human activities and his roles. By regarding to morality and spiritual values, technological mechanism of forming the built environment illustrated clearly the technological autonomy was

opposing to human autonomy. In this regard, it implies that man took an interest less and less effectively in technological creation, and therefore, the human being and its role were reduced to the level of a catalyst in the process of forming the built environment. Consequently, he began the operation without taking part in it. In such conditions, in the context of aggressive technological progress, there is an inclination to apply the same technological strategies to the space. In this sense, the technology passed the geographical, physical borders of Yeni Iskele region together with qualitative borders of the context in order to build such a housing complex in a wider ground as similar as its attributes towards other different environmental settings. With regard to this, all human activities, including building the environment as an ontological act of creating a thing rather than representation, were domesticated in such a way that they were overwhelmed in technological progression. Therefore, by not taking into consideration the context in order to present universal dimensions of space, the physical and qualitative values in local and contextual dimensions, were reduced into the universally accepted values, standards and norms emerged in the built environment. In this sense, the Royal Sun Residence complex promoted itself more universally accepted rather than being more respectful to the distinct context in which it was built.

6.4.5 Subtheme B-1: Turbulence in the Built Environment (Transmitting Environmental Mode)

Through creating a decontextualized isolated environmental entity in a technological artificial framework which had homogenizing and superficial attitudes towards the space; this contradictory built environment has been represented itself in contrast with all existing settings in physical and social dimensions. By emerging such a contrast and detaching it, the turbulence has been happened with regard to the

process of decontextualization, homogenization and superficiality in the environment. In this sense, forming the environment, including its process, methods and affairs, was reduced to a commonly accepted artificial approaches rooted in efficient technological ordering systems of rationalization aiming for representing universal norms for building the environment. The accumulation of technological means in the process of building the environment caused an artificial framework in which the built environment tended to be opposed to its surrounding settings and the distinct context in physical and social dimensions. In this sense, the existing settings were not protected and they were assumed aggressively as standing-reserve. More importantly, the individuals as an agent of choice in forming the built environment were rejected and replaced with the process of technological ordering the space in the sense of maximizing the efficiency. In this regard, human autonomy is vastly transformed into technological automatism. By considering the automatism of technological choice, human being neither is nor does anything of the sort and he was just a device for recording effects and outcomes of his perception of offered repetitive spaces obtained by diverse technological methods. Through this automatically invading and extending technology to the process of ordering, forming and organizing the space, the architectural space just expressed itself as a machine for technological ordering of the built environment. Moreover, the self-augmenting attitude of technological ordering process in built environment represented the privilege of technological progression towards interacting with all components of body and content of built environment.

6.4.6 Subtheme B-2: Decontextualization in the Built Environment

Through extensive land utilization, the new environmental entity emerged itself more intensive and artificial because of the buildings and their physical identification. In

this new ordering system, natural environment did not have an identical role, and therefore, it did not have possibilities to be reestablished. Consequently, the built environment represented itself as contradictory and in contrast to the natural setting. In the process of this transformation, also, social setting created by multicultural characteristics, in which the new setting was detached from the existing communities in Yeni Iskele region because of lacking any intended strategy to integrate the new setting culturally, economically and socially. In this regard, the physical and social isolation of living environment in an artificial framework, expressed itself as a sense of placelessness. In the process of forming these structural conditions in an artificial technological framework, the technological systematization neglected the values of natural and social settings through rationalizing its adjustment through a set of conditions which had been created by the process of decontextualization of built environment by considering the built environment not as an ontological act rather than representation. By considering the built environment as a technological phenomenon, the formative and spatial characteristics of the environment formed through the process of technological rationalization and standards emerged with, have set up a new universal place, and consequently, identified the built environment and its inhabitants through reproducing and repeating the universal norms based on efficient ordering process of technology and its self-argumentation, subordination and transformation of the setting into technological framework as an artificial dimensions of disconnection with distinct context, and on the other hand, an inclination to apply the same technological strategies to the space. In this sense, the technology has passed the geographical, physical borders of the context in order to build the new environment in a wider ground as similar as its attributes towards other different environmental settings. Finally, the process of decontextualization of

environment represented itself as a technological reduction of the architectural spaces to a technological ordered constructs in physical and social dimensions of technological automatism. In this regard, by giving absolute value to technological ordering of the built environment as an automatically invading and extending technological phenomenon, different aspects of contextual understanding of the built environment and identity of place were all reduced into a technological facts, in which the role of humans and their intervention through building the living environment were played down into a technological agent of choice. In fact, this is the technological progress that identifies the space and time. In such conditions, the presence of human in the built environment was minimized to only a consumer of space produced by technological progression. It means that, all human activities, including building the environment, were domesticated in such a way that they were overwhelmed in technological progression.

6.4.7 Subtheme B-3: Homogenization of Space

Through the process of isolating the built environment and privatizing the living spaces in a way to generate physically and socially a specific set of homogenized conditions with non-contextual considerations, there was no chance for creating possible integration among different settings existing in the context. But in more universal perspective, the emerged structural conditions attributed widely with more similarities to the same specific sets of structural conditions in the other contexts. In this sense, by having physical and social hegemony emerged through formative and spatial characteristics of the built environment aiming to represent maximum efficiency together with minimizing the possibilities, on the one hand, the functionality of the living environment has been reduced to minimum expectations of living spaces, and on the other hand, reproduction of some similar repetitive formal

and spatial qualities which are not representing the identity of the distinct place and context. In the other word, by considering the principle of efficiency as a technological process of rationalization and standardization for forming the built environment, the form of living is reduced to the more global homogenized dimensions without considering the multiple mono-settings of living forms based on distinction of the context. The reproduction of environmental qualities, which identified the place, was based on efficient ordering process through repetition of similar spatial organization of archetypes as accepted universal norms in the built environment. Accordingly, regard to the automatism of technological choice, human being neither was nor does anything of the sort and he was just a device for recording effects and outcomes of his perception of offered repetitive spaces obtained by diverse technological methods. In this regard, the self-augmenting attitude of technological ordering process in built environment represented the privilege of technological progression towards interacting with all components of body and content of built environment. So, technological process of ordering the environment as a co-ordinated phenomenon presented same attributes all over the place. In this regard, while forming the built environment becomes subordinate of technological progress, the built environment cannot have free relationship towards technology and it will be function of similar technological affairs, methods and means over the contextual understanding of space. As it can be seen, there was an immediate inclination to apply the same technological strategies to the space. In this concept, the technology passes the geographical, physical borders of the context in order to build the environment in a wider ground as similar as its attributes towards other different environmental settings. On the other hand, all human activities including building the environment, are domesticated in such a way that they were

overwhelmed in technological progression. In this sense, technological ordering process either had no restriction to pass the qualitative borders of the distinct context, or behaving universally.

6.4.8 Subtheme B-4: Superficiality in Space

By lack of physical continuity among different settings and the new built environment, the Royal Sun Residence represented itself with detached contradictory physical identification opposed to other settings existing in this specific context. This non-contextual arbitrary arrangement of built environment through utilization of artificial grid ordering system created physically and socially introverted living environment embedded with new high density, high proximity and repetitive artificial and contextually meaningless spatial and formal components. It represented that the built environment was highly assaulted from the forces of scenography and modern commoditization, in which, by considering the technological principle of efficiency as a technological standard for forming the built environment, the form of living is reduced to the more global dimension without considering the multiple mono-settings of living forms based on distinction of the context. Therefore, by subordinating and transforming of the natural and social settings into technological framework, the built environment emerged itself only in artificial dimensions of disconnection with context. In this sense, the individuals as an agent of choice in forming this built environment were rejected and replaced with the process of technological ordering the space in the sense of maximizing the efficiency. In this regard, human autonomy was vastly transformed into technological automatism. Technological automatism through its ordering the process of building the living environment isolated anthropological, cultural and even symbolic aspects of human activities. In this process, all non-technological aspects were also played down into a

new technological phenomenon such as process of building as an ontological act which is the creation of a thing rather than its representation. It means that by giving absolute value to technological ordering of the built environment, different aspects of contextual understanding of the built environment and identity of place were reduced into a technological phenomenon in which the role of humans through building the living environment was played down into a technological agent of choice. In fact, this is the technological progress that superficially identified the space and time.

6.5 Discussions on the Results through Bracketing Out the Research Relevant Subjectivities

In the case of the Royal Sun Residence in Yeni Iskele region, through extensive land utilization, in this new ordering process, the natural environment including the Long Beach coastline and vast untouched grassland behind the complex did not have an identical role in forming the new entity, and therefore, it did not have possibilities to be reestablished. Consequently, the new set of structural conditions presented itself as contradictory and in contrast to the existing natural setting in the Yeni Iskele region since the new emerged environmental entity represented itself more intensive and artificial because of the buildings and their physical identification. In the progress of this transformational mode, also, social setting created by multicultural characteristics, was detached from the existing communities in Yeni Iskele region because of lacking any intention for the new setting to be integrated culturally, economically and socially. In this regard, the physical and social isolation of living environment in an artificial framework, expressed itself as a sense of placelessness in which there was no value given for contextual understanding of space. Moreover, in this regard, ordering system prevailed on the process of forming this built environment, has neglected the values of natural and social settings through

rationalizing its adjustment through an artificial set of conditions. In this sense, by considering this built environment as a technological phenomenon with regard to pervasive rationalizing attitude of modern technology, the formative and spatial characteristics of the environment formed by the process of technological rationalization and standards emerged with, have set up a new universal place. Therefore, by subordinating and transforming the new setting into technological framework as artificial dimensions of disconnection with distinct context, technological procedure has identified the built environment and its inhabitants through reproducing and repeating the universal norms based on efficient ordering process of technology and its self-argumentation. On the other hand, a monistic inclination has been existed to apply the same technological procedures all over the space. In this sense, the technology has passed the geographical, physical and qualitative borders of the context in order to build the new environment in a wider ground as similar as its attributes towards other different environmental settings.

By analyzing the Royal Sun Residence complex as a gated community with regard to process of gating as a separate urban process, the process of isolating the built environment and privatizing the living spaces, and subsequently, having no chance to create possible integration among different settings existing in the context, physically and socially, a specific set of homogenized conditions with non-contextual considerations have been generated. But in more universal perspective, the emerged environmental characteristics attributed widely with more similarities to the same specific sets of structural conditions in the other different contexts. In this sense, on the one hand, by having physical and social hegemony emerged through formative and spatial characteristics of the built environment aiming to represent maximum efficiency together with minimizing the possibilities, the functionality of the living

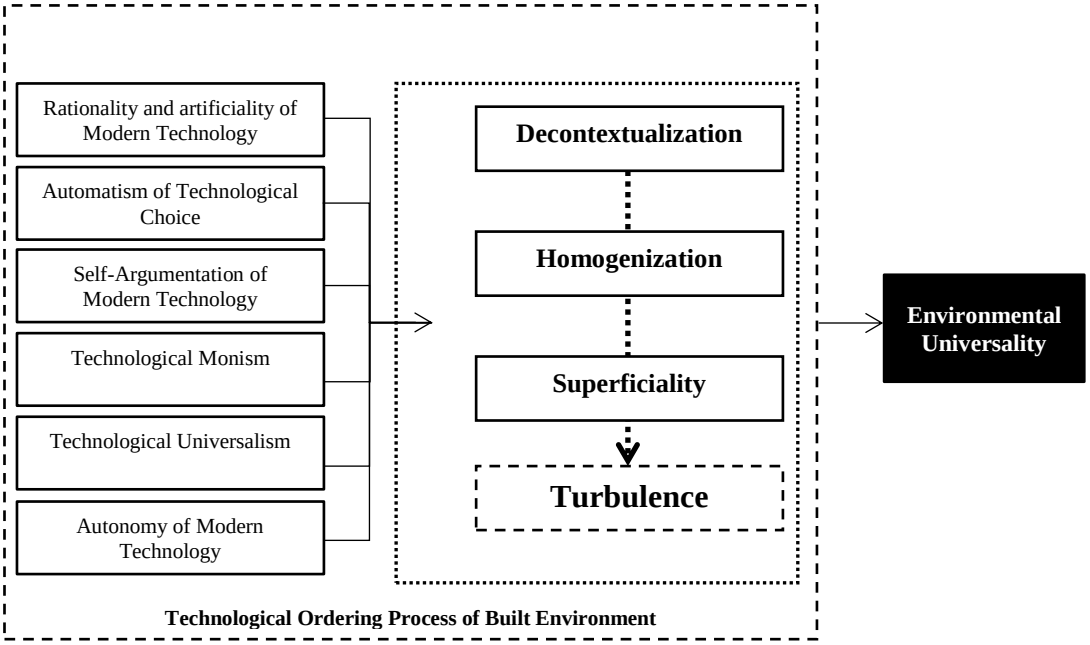
environment has been reduced to minimum expectations of living spaces. On the other hand, the reproduction of some similar repetitive formal and spatial qualities which were not representing the identity of the distinct place and context, has been reduced the built environment into a phenomenon emerged by automatism of technological choice. In the other word, by considering the principle of efficiency as a technological process of rationalization and standardization for forming the built environment, the form of living is reduced to the more global homogenized dimensions without giving value to multiple mono-settings of living forms based on distinction of the context. In such a phenomenon, the absolute value has been merely given to technological progress, and technology.

By lack of physical continuity among different settings and the new built environment, the Royal Sun Residence represented itself as a decontextualized and homogenized built environment with detached contradictory physical identification opposed to other settings existing in this specific context. This non-contextual arbitrary arrangement of built environment through utilization of artificial grid ordering system created physically and socially introverted living environment embedded with new high density, high proximity and repetitive meaningless spatial and formal components. It represented that the built environment was highly assaulted from the forces of scenography and modern commoditization, in which, by considering the technological principle of efficiency as a technological standard for forming the built environment, the form of living is reduced to the more global dimension without considering the multiple mono-settings of living forms based on distinction of the context. The reductive process of technological forming has caused a superficial status for the Royal Sun Residence complex.

In fact, this transmitting environmental mode has presented itself, firstly, through the process of decontextualization of the built environment, and secondly, the reductive status of space generated through the process of homogenization and superficiality provided by technological ordering system of built environment. With regard to this, the transmitting environmental mode has represented itself by contradictory status concluded in turbulence in between new structural conditions and existing physical and social settings in the region, in which, this means of forming the environment, including its process, methods and affairs, was reduced to a commonly accepted artificial approaches rooted in efficient technological ordering systems of rationalization aiming for providing universal norms for the built environment. Moreover, the monistic self-augmenting attitude of technological ordering process in built environment represented the privilege of technological progression towards interacting with all components of body and content of built environment. More importantly, in this ground, in the technological process of ordering the living environment, the systematization applied did not allow any external indicators to take part in setting mechanism of the environment and playing role as a parameter of the coordination. Through autonomy of technology in the process of building the environment, there was no impact by other external indicator allowed to coordinate in forming the environment. In this sense, Technological ordering process of the built environment reduced the role of humans into the subject of the technological progression in a manner that technological autonomy had made the living environment more and more independent from the human activities and his roles. In such a space, the presence of human in the built environment was minimized to only a consumer of space produced by technological autonomy. As a consequence, human autonomy was vastly transformed into technological automatism. By considering the

automatism of technological choice, human being neither was nor does anything of the sort and he was just a device for recording effects and outcomes of his perception of offered repetitive spaces obtained by diverse technological methods. Through this automatically invading and extending technology to the process of ordering, forming and organizing the space, the architectural space just expressed itself as a machine for technological ordering of the built environment.

Table 16 : Technological Ordering Process of Built Environment



Regarding to this process of environmental transmission concluded in environmental turbulence, there were subjectively some assumptions which are summarized below. These meanings have been shared through defining participations with an expert involved to the project and the inhabitants of the complex aimed to bracket out the subjectivity of the research according to their reactions towards the sketched meanings;

- ***Contradictory Environmental Entity in Physical and Social Dimensions:*** A delivered sense of contrast among natural and new built environment in

> which the new setting aggressively opposed to the characteristics of natural setting. In social dimensions, also, with regard to the different cultural contexts in which the inhabitants are originated, their perception of the space and their process of dwelling and finding the sense of belonging to the new living environment and place, seemed to be differed. Therefore, their responses to this process may create contradictory condition in the way of personalizing and responding to the environment through their events and activities in the space.

In this regard, in general, the expert also puts more emphasis on the priority of such built environment in which the main concept is based on interests that have been realized by considering and responding to the customer needs, rather than giving an absolute value to the distinct dimensions of the context. Therefore, in the process of design, there was no future image of the detachment of the built environment and its social-physical consequences and the process of forming such built environments in this region basically is rooted in a radical modern progressive conception. In this concept, the standing-reserve attitude of this progression toward the existing settings is predominant, since the social and physical insertions of built environment represent themselves as afterthought. And the expert person mentions that;

> *There was no intention for dealing with such considerations. If it was like this or something else, this is only a kind of built environment. In the design process, needs are at the priority and these needs come from the quest of customers. Indeed, after this construction, the customers are the ones who bring and identify for us their needs.*

Moreover, in social consideration, he opens a new dimension into the discussion which mainly points out; also, the separate communities that are created even in the complex together with urban segregation emerged in larger social scale. In opposite, the inhabitants considered their living environment as adjusted entity to natural and social settings according to the chart below.

Table 17 : Physical Adjustment of built environment according to participants' points of view

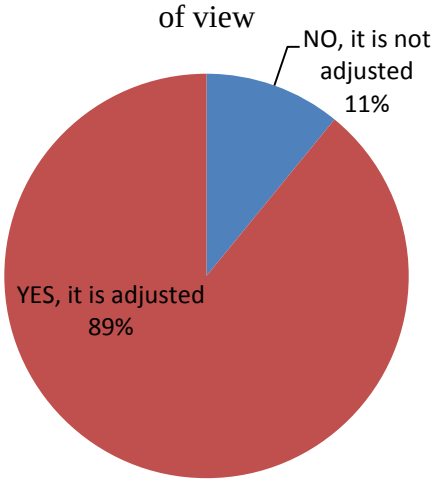
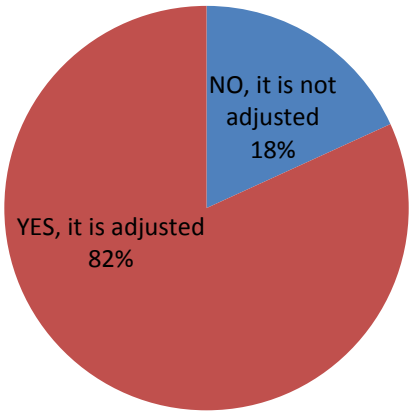
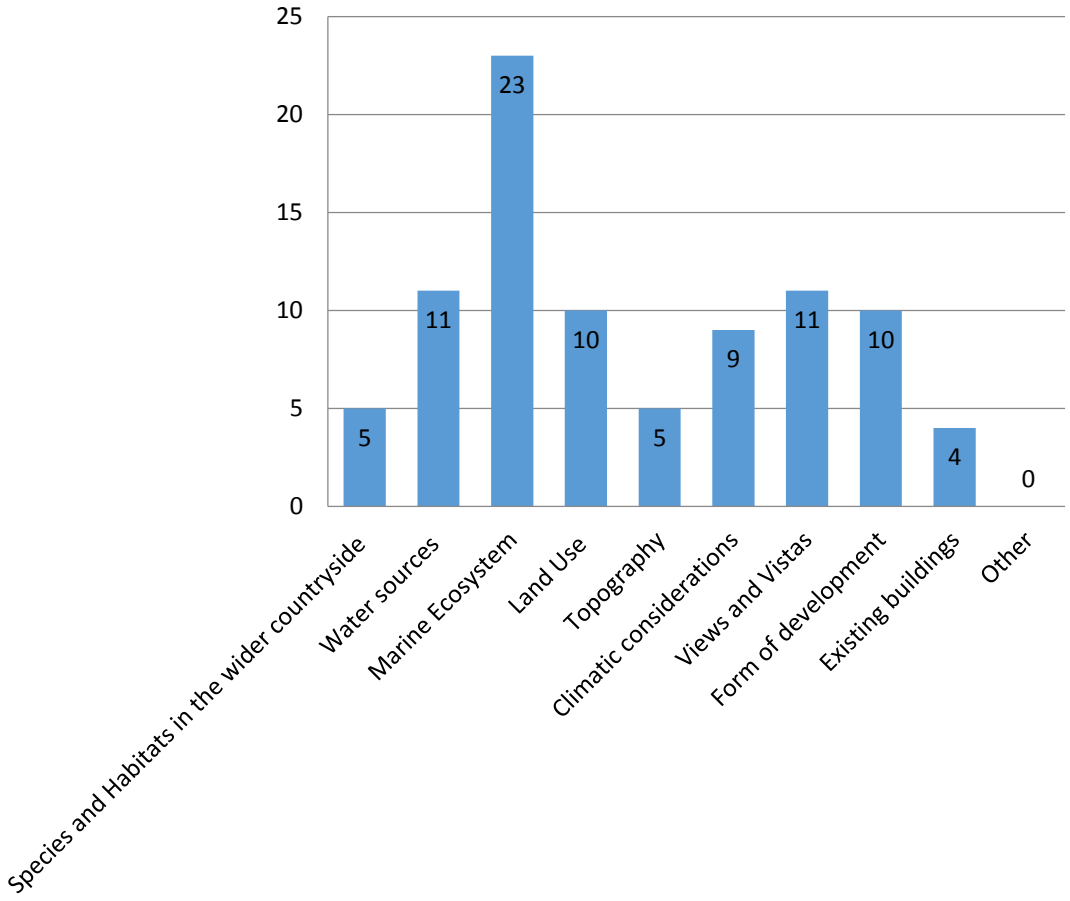


Table 18 : Social Adjustment of built environment according to participants' points of view



In the case of physical adjustment, the inhabitants put more emphasized on integration of their living environment with coastline and the sea according to the range of factors in chart below.

Table 19 : Range of factors considered by participants (Physical Adjustment).



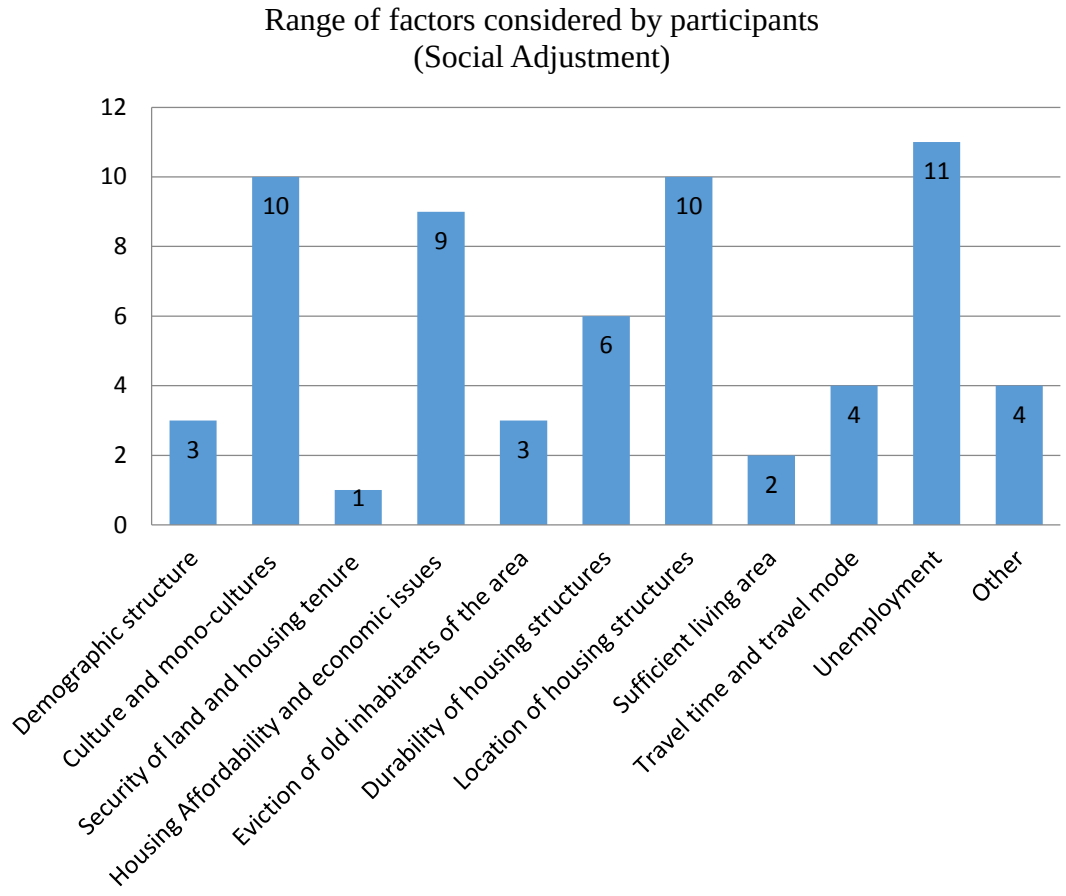
- ***The Inhabitant's Isolation of the Social Mechanism in the Region:*** The economic disconnection together with physical ordering of living environment can cause the inhabitant's isolation of the social mechanism in the district. This condition can also emerge itself in a kind of consumerism happening through their absence in cultural production processes in the society.

In this point, again, by emphasizing on the economic reasons which are predominantly took the main role in the process, the expert person remarks the legal restrictions which the residents have faced in order to take part the social mechanism of the region. For instance, he exemplifies that;

> *There was a school for Russian and Ukrainians at the beginning. I think they had 50 students or something like that, but they closed because of some governmental problems they have faced.*

In the case of social adjustment, the inhabitants put more emphasized on cultural issues, housing affordability and economic issues, location of the housing structures and unemployment in the complex, according to the range of factors in chart below.

Table 20 : Range of factors considered by participants (Social Adjustment)



- ***Urban Segregation:*** This emerged private space presented itself acutely homogenized place, contributing to the spatial stratification of the urban setting. Also, in social dimensions, the social stratification happened in the Royal Sun Residence Complex created a significant social disadvantage for the larger society in the Yeni Iskele district, because the social homogeneity- especially in terms of financial classification- within this built environment is dominantly higher than outside of this complex, and consequently, it results to increase in urban segregation.

In this regard, by shifting the conditions through lack of any strategic plan for regional development and radical individualism ruling the process of forming the built environment, the expert person involved with the complex compromises with the structural conditions and points out that;

> *There was no any master plan or rules established by government or chamber of architects which this project was designed accordingly. So, to be honest, by assuming that if we were not going to construct such a project, construction of the land was happening with individuals.*

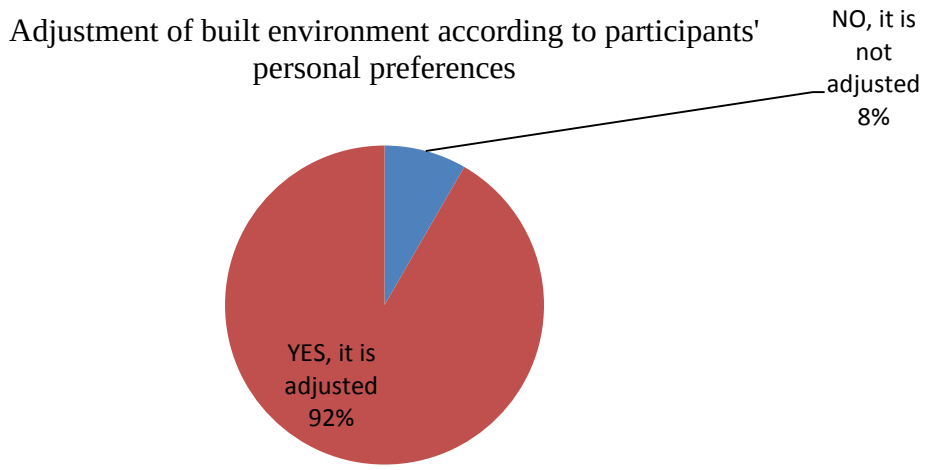
- ***Sense of Placelessness:*** Without having any view to geographical and contextual distinctive components which were identified the place because of high density and proximity issues created, the inhabitants somehow were isolated in an artificial framework of living in the environment.

In this concept, by referring to customers' preferences, the expert person similarly argues that;

There is no identification first of all, and then, it is something like rubbish. As an architect, I cannot describe that it is a built environment according to architectural criteria, because there are just roads, buildings and anything else. So, this is not a built environment in our point of views, and with regard to architectural definition of the space.

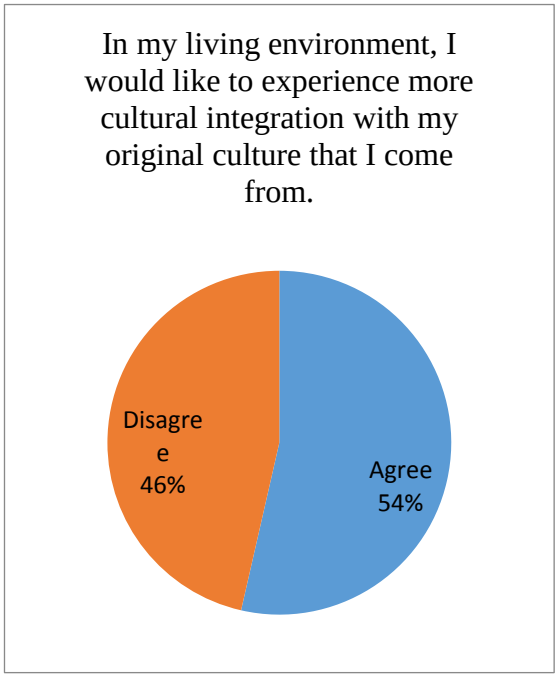
In this point, also, the inhabitant proved the adjustment of the built environment with their personal preferences with regard to the charts below.

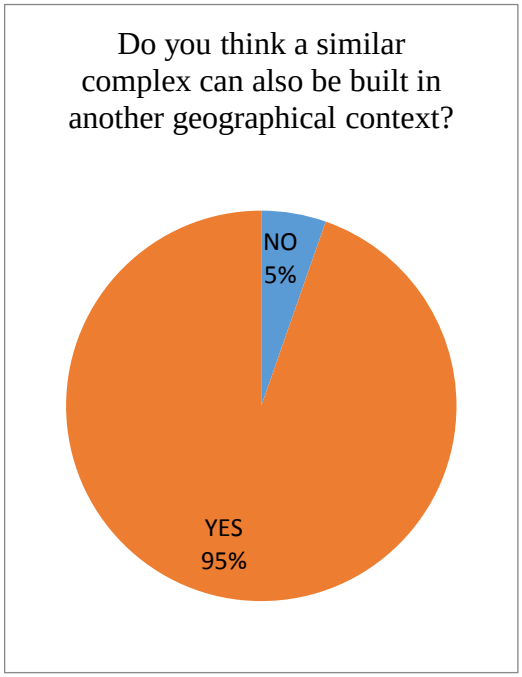
Table 21 : Adjustment of built environment according to participants' personal preferences



In this regard, they somehow neutrally responded towards their tendency to experience more integration in this built environment with the original cultural context that they were originated, illustrated in the chart below, however, they mostly certified that similar environment may also be constructed in different geographical context.

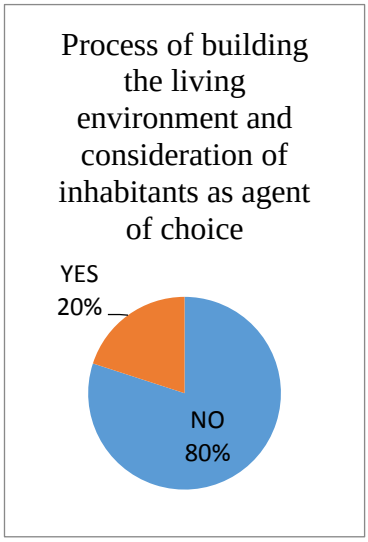
Table 22 : Inhabitants' responses towards contextual understanding of their living environment

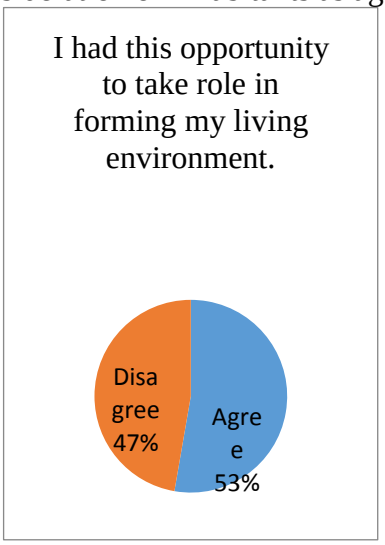


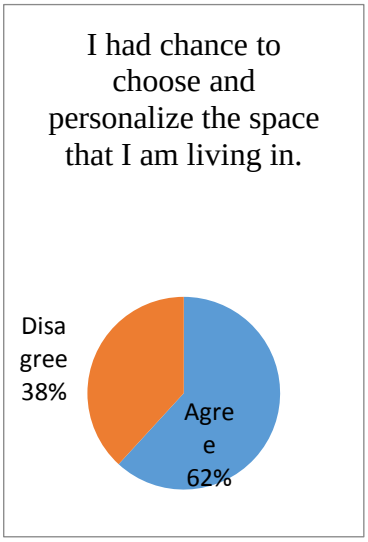


Moreover, by asking if they were considered as an agent of choice through the process of forming the environment, they had also different responses to the crossed questions.

Table 23 : Consideration of inhabitants as agent of choice







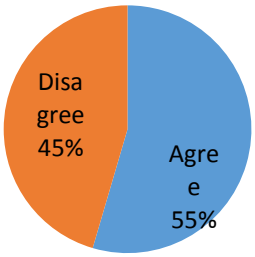
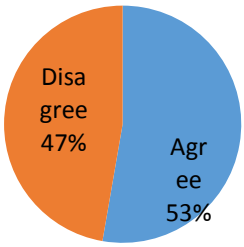
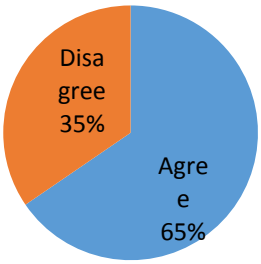
- ***Scenography and Modern Commoditization:*** It seems that the built environment was assaulted from the forces of scenography and modern commoditization. Subsequently, when the ontological nature of utilized materials and structures and expressiveness of the joints were not considered, they were not able to give character to this place. In this sense, by considering the built environment as an ontological act, therefore, it is the creation of a thing rather than its representation.

Regarding to this subjective point in the study, the architect confirms this Scenographic status by calling it as a kind of classical approach towards materials used, structure and methods of construction, and he argues them as universally accepted. The expert person says that in the process of forming built environment;

> *There were no any new material applied and no environmental-contextual consideration through the materials, in this regard; there was no proper insulations, no proper construction methods as well. However, in this process, we used and applied some new different materials, but I am not sure that they are enough or not.*

Towards the issues considered as scenography and modern commoditization, the inhabitants responded as illustrated below in the charts.

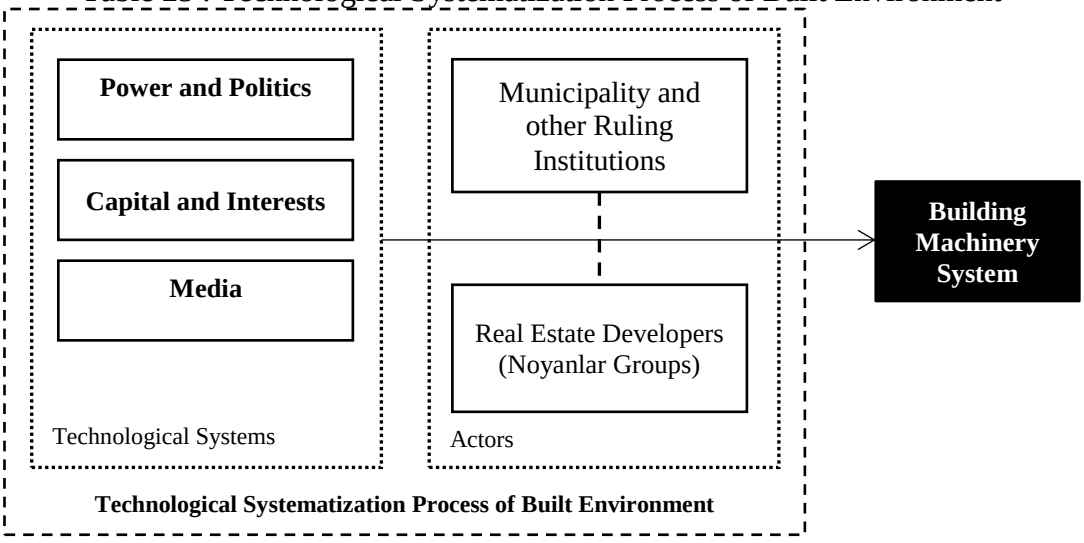
Table 24 : Inhabitants' responses towards the issues of scenography and modern commoditization

The materials used in the buildings facades; interior space and public spaces represent the location that I am living in.	The materials used in the buildings facades; interior space and public spaces are not as similar as the construction material used in…	The construction materials which are applied to the surfaces in my living environment look like decoration.
		

Furthermore, in the other word, by looking at the technological ordering process of the Royal Sun Residence as a case for this qualitative research, also, this prevailing set of structural conditions in the process of urbanization and assuring future proliferation of such environmental developments in the Yeni Iskele region can be emphasized through the political economy of the region reasoning for economic growth. In this regard, in the process of forming this built environment through a specific set of structural conditions, technological systematization was achieved by the coordination in between media, capital, power and technology. The accomplishment of interconnection in between these technological-rational systems was considered as the foundation of political economy of the Yeni Iskele district. It was concentrated on the underlying current of urban economic growth through achieving interplay of capital, interests and institutions for new urban development in the region. With regard to this broad participation, the rapid expansion of new structural condition explicated the role of the growth coalitions in which economic

growth was promoted. In fact, this progressive coalition was not only achieved by the rentiers (Noyanlar Group as the real estate developers), but also, it is supported by politics, the local media, and other related technological systems which are predominantly fiscal. By identifying the Royal Sun Residence project as a gated community, it was aimed to condense the capital in this developing region, through representing this built environment with more universally organized atmosphere targeting new residents from different contexts to settle in this housing project. In this process, gated community as a chosen model of mass housing is concerned with regard to the process of socially and physically isolating built environment through developer's effect upon local politics for privatization of the space and place aiming to use of exclusivity of space. In this regard, the emerged gated community presented itself acutely more homogeneous place, contributing to the spatial stratification of the urban setting.

Table 25 : Technological Systematization Process of Built Environment



Regarding to the process of technological systematization concluded in building machinery system, there were subjectively some assumptions which are summarized

below. These meanings have been shared through defining participations with architect and the inhabitants of the complex aimed to bracket out the subjectivity of the research according to their reactions towards the sketched meanings.

- ***Developer's Effect upon Local Politics:*** The developers in the region, including Noyanlar Groups, used their effect upon local politics to get permission to privatize some part of the natural environment that was previously used by the public.

In this regard, the expert person points out about the unsuccessful forces that the private sector always have on the municipality in order to improve the conditions. Also, he notices the lack of monitoring procedures by municipality on the process of forming the built environment because of the limitations on the human sources. In this regard, he exemplifies the general lack of efficient purposeful management in the region and he says;

> *The Long Beach project is one of the old municipality's projects, but still continuing! But it is still unfinished! They spent their sources for unnecessary facilities such as picnic place since the region has shortages for its water and sewage systems. They think about their own priorities and preferences according to their political reasons, therefore, the water and sewage systems can be postponed for a while.*

- ***Enclave Neighborhoods as Worldwide Phenomena:*** The gated community observed, can be proved according to the economic-social status. Also, this enclave neighborhood seems to be considered worldwide phenomena. This spreading phenomenon can be significantly impacted by the investing capital

companies and entrepreneurs with sophisticated methods of stimulating the quest for gated communities as well.

In this manner, the architect also emphasizes the significant role of the media and the programming system of marketing which provides the statistics and targeting customers all around the world. In this concept, the expert person refers to the variety of choices in between housing typologies considered and he remarks that;

We have collected all together and we give many choices, I meant choices of building typologies. So, if you want 3 bedrooms for a big family we offer it! If prefer studio flat we can offer it to you! Therefore, it is very complex project and I think it is in progress very well at this moment.

In this situation, he mentions the opportunities given by local construction legislations, and he says;

There are high-rises, middles and two stories. So, this is related to the rules and construction permissions, that is why we have chosen varieties of densities for the complex. It was dictated by the rule given by the chamber of architects. Accordingly, the height can be changed in our case, in this site. So by using this opportunity we offer different types of housing units including studios, multiple-story houses and apartments which are related to customers" choices, but rules say only to us, you are allowed to build the ratio of 2.2 of this land.

In this sense, the inhabitants' responses towards non-discursive dimensions of meaning in the built environment can be considered, since they have not considered the structural condition emerged in the built environment and the architectural spaces provided for them, however they mainly emphasized the natural and contextual

components of the environment such as sea, coastline and so on as their priority (Appendix.E).

In the context of aggressive technological progress, there is an inclination to apply the same technological strategies to the space. In this sense, the technology passes the geographical, physical borders of the context in order to form the built environment in a wider ground as similar as the other different environmental settings. In addition, all human activities, including building the environment, are domesticated in such a way that they will be overwhelmed in technological progression. In this sense, technological ordering process had no restriction to pass the qualitative borders of the distinct context, and behaves universally. Therefore, with regard to the universally accepted qualitative values in the built environment, the local and contextual qualitative values are harshly neglected, in order to present universal dimensions of space.

6.6 Summary of the Chapter

In this chapter, the practical implications of empirical phenomenological method of field study have been examined on the case of Noyanlar Royal Sun Residence in Yeni Iskele district in Northern Cyprus by emphasizing on new rapid urban development in region. By introducing the social context, physical setting of the region, together with considering the historical and current regional development in this region, the method of implication of the field has been sketched through the observation, field notes, the process of coding the data materials, categorizing the topics and generated subthemes and themes through descriptions , participation of inhabitants and the architect of the complex through distributed questionnaires and

interview were deliberatively explained aimed to have a precise discussion on the results by focusing on chosen case in the conclusion.

Chapter 7

CONCLUSION

First of all, the conclusion of this research consists of items mentioned here which are directly expressing the way of contribution that this research had towards the philosophy, literature, and entirely, how technological problems occurred in architecture, built environment and how they could influence state of meaning. In this sense, the list of mediations through documentary research assisted to track the problems of modern technology through application of the first-person method toward the empirical mode of phenomenology on the case.

In this regard, to explain instrumental technological phenomenon prevailed on the process of forming this new transmitting environmental mode in Yeni Iskele region, this dissertation can be concluded, firstly, by a summarized description on the environmental issues created by technological instrumentalization through process decontextualization and reductionism in philosophical ground, and subsequently, systematization and mediation in real dimensions emerged in the Royal Sun Residence complex as a case, by emphasizing on that there is no intention to generalize the ideas and results in this research. Therefore, all that will be explained below, directly refer to the case of Royal Sun Residence complex, as an example which, the field study and derivative list of mediations have been implicated on.

In the case of Royal Sun Residence complex situated in the region of Yeni Iskele, through the reconstitution of natural setting as the built environment, the natural setting was artificially isolated, abstracted and detached from the distinct context in which it has been initially observed in order to be coordinated with a technological framework. In this ground, the detachment of the natural environment opened it to a utilitarian assessment which is rooted in technological rationality. Therefore, the disconnected natural environment has uncovered itself as containing technological patterns and human activity frameworks which were made available by decontextualization of natural environment. Consequently, by giving some qualities to the natural environment which has been isolated, the built environment revealed itself as a technological property. In such a process, the characteristics of natural environment was crushed, and subsequently, it was fragmented into pieces to represents itself technologically useful. In the process of fragmentation, the natural environment was simplified, stripped of technologically useless qualities (primary qualities), and therefore, it was reduced to its abstract essential characteristics via formulization and evaluation (secondary qualities). In order to function, the new technological built environment has been re-implanted (re-embedded) in the natural environment. In this contrast, as it discussed, this built environment has physically less adjustment to the existing natural setting through its physical characteristics as an introverted gated community in the region.

This technological process of ordering the environment, as a co-ordinated phenomenon presented the same attributes all over the place. In this regard, while forming the built environment has become subordinate of technological progress, the built environment could not have free relationship towards technology and it was function of similar technological affairs, methods and means over the contextual

understanding of space. With regard to this, the accumulation of technological means, subordination and transformation of the natural setting in the process of building the environment caused an artificial framework in which the new setting has tended to be opposed to its surrounding natural world in Yeni Iskele region. In this sense, the natural world is not protected and it is assumed aggressively as standing-reserve.

In fact, in the process of forming the built environment, technological systematization has been achieved by coordination between media, capital, power and technology. The interconnection of these technological systems can be considered as the foundation of turbulence in built environment, in physical and social dimensions. In this sense, the embedded-decontextualized technological built environment in its revealing essential characteristics has been supplied with condensed considerations of technological efficiency. On the other hand, this can be considered with the limitations of technology towards understanding the ethical and aesthetical mediations.

Accordingly, by forming such a built environment at the first step, it was therefore superficially constructed and styled in order to be supplied for settlement. In this regard, the social insertion of technological built environment emerged itself as afterthought. By condensing the considerations of efficiency with ethical values, ethical limits were overthrown in the breakdown of a new conception through forming the built environment and technological framework of building. Furthermore, by regarding to the considerations of efficiency, a new definition of the aesthetic technological design is also emerged.

Furthermore, technological systematization, in the process of forming the built environment, neglected the social structure with its ritual considerations through rationalizing its adjustment to the existing social values. In this concept, cultural and mono-cultural values were also isolated and reduced in the rationalization process of technological production towards building a living environment based on the norms concluded from technological possibilities. Also, the individual as an agent of choice in forming the built environment were rejected, and subsequently, their role was reduced with the process of technological ordering of the space in the sense of maximizing the efficiency. In this regard, human autonomy is vastly transformed into technological automatism. Technological automatism through its ordering the process of building the living environment isolated all anthropological, cultural and even symbolic aspects of human activities. It means that all non-technological aspects have been also played down into a new technological phenomenon. By giving this absolute value to technological ordering of the built environment, different aspects of contextual understanding of the built environment and identity of place was also all reduced into this phenomenon in which the role of humans, through building the living environment, has been played down into a technological agent of choice. In fact, this is the technological progress that identifies the space and time.

Moreover, through building the environment by the means which represented the technological process of ordering, forming and organizing the space, the role of human intervention was also reduced to the process of technological self-argumentation. In such a space, the presence of human in the built environment has been minimized to only a consumer of space produced by technological progress. Namely, by considering automatically invading and extending technology to the

process of building, the architectural space expressed itself just as a machine for technological ordering of the built environment in which the role of human being is neglected.

Building the living environment by an increasing number of similar self-augmented technological means, the architectural space was emerged within technological ordering process that has similar attitudes towards different distinct environmental settings and human activities. Indeed, the self-augmenting attitude of this ordering process represented the privilege of technological progression towards interacting with all components of body and content of the built environment.

In this atmosphere, by allocating communicative structure of architecture as a metaphor rather than a language, architecture has been experienced as more interactive rather than entirely an autonomous phenomenon. In this sense, with regard to the semiotics, specifically the pragmatics was considered as the field which can be appropriately matched to the architectural discipline in order to investigate the context of meaning, and furthermore, the linguistic comprehension of audiences. In the case of practical implication of the empirical phenomenological field study applied through derivative list of mediations, the pragmatics verified itself dominantly as appropriate field to be employed, where architectural meaning of the built environment is frequent in its own context. Similarly, the Royal Sun Residence, as practically considered as case study, while the structural conditions of this built environment was influenced by functional, historical, social and political concerns or any external predominant frameworks such as ordering process of technological systematization, therefore, it cannot be remained abstract set of structural conditions anymore. Consequently, through this approach to architectural meaning, non-

discursive communication in architecture has been introduced more relative with actual conditions and experience of human being through architectural of space. In this sense, to communicate, the mental status of inhabitants and atmosphere created in this built environment through mediations, are the mediums which can be utilized to bracket out the messages that are easily decoded through set of structural conditions represented themselves in the built environment.

The important challenge through understanding architectural meaning was confronted and concerned through the implication of first-person empirical phenomenological field method, was that the non-discursive communicative structure has been assumed dependence on trust of the inhabitants' receiving talent and interpretation and their priorities, providing the ability to comprehend set of structural conditions emerged in built environment to a limited extent subjective (Appendix E). This concern becomes more vital to this research, since the built environment was considered as product of technological framework of ordering the built environment rather than humanitarian cultural and contextual comprehension of space. In this regard, environmental mode has represented itself by contradictory status concluded in turbulence in between new structural conditions and existing physical and social settings, in which, this means of forming the environment, including its process, methods and affairs, was reduced to a commonly accepted artificial approaches rooted in efficient technological ordering systems of rationalization aiming for providing universal norms for the built environment. Moreover, the monistic self-augmenting attitude of technological ordering process in built environment represented the privilege of technological progression towards interacting with all components of body and content of built environment.

More importantly, in this ground, in the technological process of ordering the living environment, the systematization applied did not allow any external indicators to take part in setting mechanism of the environment and playing role as a parameter of the coordination. Through autonomy of technology in the process of building this environment, there was no impact by other external indicator allowed to coordinate in forming the environment. In this sense, Technological ordering process of the built environment reduced the role of humans into the subject of the technological progression in a manner that technological autonomy had made the living environment more and more independent from the human activities and his roles. In such an atmosphere, the presence of human in the built environment was minimized to only a consumer of space produced by technological autonomy. As a consequence, human autonomy was vastly transformed into technological automatism. By considering the automatism of technological choice, human being neither was nor does anything of the sort and he was just a device for recording effects and outcomes of his perception of offered repetitive spaces obtained by diverse technological methods. Through this automatically invading and extending technology to the process of ordering, forming and organizing the space, the architectural space just expressed itself as a machine for technological ordering of the built environment.

In this condition, the sincerity and trust on the non-discursive meaning can be questioned, particularly in this artificial atmosphere created in the context of this emerging gated community and other similar ones in the Yeni Iskele region, in which architecture undertakes for transferring the universal homogenized meanings since existential meaning of architecture was assumed as order and spirit of technological systematization (Table.11). In this regard, by assuming architecture as a long-term-interval communicative medium in comparison with other cultural communicative

artefacts, this set of structural conditions emerged in this region by building machinery system, was dominantly questionable while it tends to marginalize the distinct contextual characteristics of this distinct place in order to arrive at the global values and standards through mass-media and setting up a new universal place. In this sense, as it is considered through this study in case implicated, by considering this built environment-gated community- as technological object and product rather than a cultural and contextual phenomenon, architecture generally represented itself only as an essence in commercial culture domain. In this concept, the role of human being is also controversial in this process of forming the built environment since there was no any alternative presented to them.

By observing such environmental mode of technological revealing in the case, in order to concern the contemporary architectural philosophy and practice, the analytic movement towards a scientific-based approach can be reconsidered since international-style modern understanding of built environment turned into the most widely used language of architectural production. Consequently, as it also witnessed in the root of new urban development of Yeni Iskele region and the case of Royal Sun Residence, the architectural profession was comprehended as under siege conditions by numerous strengths which merely tend to systematize, categorize, codify, taking role in decision-making process, and entirely, removing basic intuition from individuals. However, this future seems to be not avoidable, alluring however it might be to a few. By considering that it might be the architectural discipline's promise for relevance, it is essentially a responsibility on architects and philosophers to revalorize the local and contextual values all around the world, and specifically in Cyprus. Actually, this research is not a contention for a specific contextual architectural approach as a survival strategy; rather, it is fundamental to open the

new perspective for making and enhancing meaning. Therefore, in the event that architecture is to keep on being a relevant discipline, it has to exhibit the ability for this vital incumbent. In this sense, architectural theorists with tendency to Heideggerian's notions towards ontological look to the discipline, offer conceivable paths forward in their call for an arrival to deductive thinking through tectonics in architecture, can be exemplified. As Frampton (1996) remarks;

> *Needless to say, we are not alluding here to mechanical revelation of construction but rather to a potentially poetic manifestation of structure in the original Greek sense of poesis as an act of making and revealing* (p. 519).

And he continues;

> *One may assert that building is ontological rather than representational in character and that built form is a presence rather than something standing for an absence. In Martin Heidegger's terminology we may think of it as a 'thing' rather than a 'sign'* (Frampton, 1996, p. 520).

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APPENDIX

Appendix A: Observational Field Notes on Environmental Mode and the Derivative List of Mediations (First and Second Draft)

By getting help from a property seller working in Noyanlar Construction Groups, I entered to the Royal Sun Residential-Recreational Complex by using the transportation and other facilities that company was offering to the ones who plan to purchase a housing property in Noyanlar's housing developments all over the region. ***(Gating machinery systems)***

The first experience I had, I lost my geographical orientation by entering to the site, and however, I knew that I was in the district of Yeni Iskele and very close to the Long Beach coastline towards Bogaz, when there were no natural or built references which can help me to identify the place. ***(Turbulence in built environment/Decontextualization of built environment/Environmental Universality)*** As far as I informed the project consists of 70 acres of land and consists of 5 stages, that we were intended to visit the first phase which was almost finished. The second stage was under construction and therefore, the construction machines and constructors are constantly working by using the roads and vehicular accessibilities provided for the first stage in the complex. Their presence was evidently felt in the site. ***(Gating machinery systems)***

The second experience was meeting with a group of Iranian middle-aged who were walking together alongside the main access of the complex. The Iranian property seller commented that by increasing the value of land and housing properties in Iran, the higher income class of Iranians have started to purchase properties in North Cyprus, especially in this region regard to the rapidly new urban development. She also added that they mostly consider this development as a way of investment with regard to that the Iranian currency is gradually losing its value in comparison with other currencies. They also have this opportunity to have other facilities for buying the properties in this area by getting direct long-term loans from the company. She mentioned a group of residents, have bought properties and left their children in the complex aimed to register them in the universities in the island. Also, during the visiting the complex, other nationalities settled down in the complex were observed. More dominantly, Russian groups of inhabitants were accommodated in the complex. ***(Gating machinery systems/ Decontextualization of built environment)*** ***By considering the different cultural contexts in***

which they are originated, the perception of the space and the process of dwelling and finding the sense of belonging to the new living environment and place seem to be differed and their responses to this process may create contradictory condition in the way of personalizing and responding to the environment through their events and activities in the space. (Environmental universality/Decontextualization of built environment)

By considering the location of the complex, its distance with other existing urban setting such as the town of Yeni Iskele, Bogaz and the city of Famagusta, as Iranian inhabitants emphasized, created firstly the problem for transportation which in the most cases it was only solved by private mode of transportation. On the other hand, regard to limited number of retails, the inhabitants had to rectify their living requirements in the new region that sometimes causes many difficulties such as transportation and long time-distant traveling, lack of accessibility during night time, higher prices, etc. according to what it was observed and asked from the inhabitants and markets around. ***(Gating machinery systems)*** In this concept, with regard to the high rate of unemployment in region, also, new inhabitants are added to this social issue. ***This economic disconnection together with physical ordering of living environment can also cause the inhabitant's isolation of the social mechanism in the district. This condition can also emerge itself in a kind of consumerism happening through their absence in modern materialistic and cultural production processes in the society. (Turbulence in built environment/Decontextualization of built environment)***

Here, the first question raised to my mind was how the construction of the built environment of such a big project has been credited administratively by the municipality of the region and invested by the company through increasing speed of construction which is evidently observed. Actually, the first stage of the project was almost developed in one and half year including different housing typologies, density and facilities. The company also promises to finalize the second stage till end of the next year (2016). During the visiting the site, the property seller gave me some brochures about the complex in which all information about the location, housing typologies, facilities, and investing opportunities were clearly described together with all contact information and visual components containing digital rendering materials of the complex, houses and apartments and etc. ***(Gating machinery systems)***

Moreover, which is observable in first look, no greenery and landscape qualities have been embedded in this built environment. In addition, by reaching to the point that first step of construction is finished, and the second step was in progress, surprisingly the grassland was visible. As I perceived, the built environment has started to demolish the existing natural setting of area in order open its space for being developed and created a new land use definition of the area***. In this respect, it delivered a sense of contrast among natural and built environment in which the new setting aggressively opposed to the characteristics of natural setting. The biodiversity of the area may vastly affect in such a process and by adding this contradictory environmental entity, the natural environment will be more impacted and neglected. By increasing the number of the inhabitants, different modes of transportation and traffic systems, and other facilities such as mechanical and electrical, the different types of pollutions in the environment, the natural environment is concerned to lose its possibilities to reestablish itself and taking role identically less as a member of the new ordering system of the environment. The ecosystems of the region are also considered to be affected in this manner.*** In fact, constructing this type of built environment (gated community), at the outskirts brought up many disadvantages, as it was observed and explained, the natural environment, extensive land utilization emerged itself more intensive and artificial because of the buildings. In the case of Royal Sun Residence Complex, precious nature reserves were covered with new buildings and it was endangered. ***(Turbulence in built environment/Decontextualization of built environment/Superficiality in space)***

The grid layout of this built environment was also another aspect which has been observed through this visit. Through this ordering system, a set of modular-similar forms were related and regulated by a three dimensional grid system. In fact, here, the different set of linear physical entities as series of completely same cubical forms arranged sequentially in a row, sorted by the specific housing typologies, were constructed a basic grid system in which set of linear forms with regular defined corners have been simply combined by a cubical single forms without any formal collision in geometry, rotation in grid system. Forms were also consisted of very simple formal additions and subtractions that only defined the superficial approach to the housing development, and functionally were meaningless and represented an artificial decoration on the façades as well as materials. These forms were arranged by high density in which they expressed literally neglect to the spatial hierarchy,

the importance of exterior spaces and their role in creating more dynamic environment together with the privacy levels in the built environment (proximity). ***(Decontextualization of built environment/Homogenization of space/Superficiality in space)***

As observed, this complex also had introverted arrangement in which there was no chance for creating possible continuity among different settings, and therefore, it provided physically an isolated built environment for the inhabitants (gated community). That was promoted by property seller as one of the advantages of the complex in terms of security. In this regard, the developer provided this condition to establish exclusive control of natural environment as an amenity for its customers. ***The developers in the region, including Noyanlar Groups, used their effect upon local politics to get permission to privatize some part of the natural environment that was previously used by the public.*** However, the distance with the Long Beach is almost 3000 meters, but as a complex which was developed in this land as part of the regional development, has no physical integration with existence of this ecosystem, even more, by creating new density for multistory residential building in the west side of the complex it created new vista for the region, however, the highest units have wonderful view of Long Beach, and accordingly, they have highest prices in the complex. In contrast, other units and housing typologies do not have such a chance. Regard to the arrangement developed, a group of the units are isolated to their view to the recreational complex and mostly to other housing units in different directions. ***(Gating machinery systems /Turbulence in built environment/Homogenization of space/Superficiality in space)***

Moreover, these formative characteristics of the complex represent similarities through different social mediums with other same gated communities in which recent global values have more emphasized than the ones that are rooted to this distinct context. ***In such a case, the gated community observed, can be proved according to the economic-social status. Also these enclave neighborhoods seem to be considered worldwide phenomena. This spreading phenomenon can be significantly impacted by the investing capital companies and entrepreneurs with sophisticated methods of stimulating the quest for gated communities as well.*** ***(Gating machinery systems /Environmental universality)***

Actually, the Royal Sun Residential Complex can define itself as gated community when this residential area has formed with restricted access in which normally public spaces existing in this built environment are privatized. As observed, the physical border surrounding this built environment, the controlled entrance that was intended to prevent penetration by non-residents, can emphasize this complex as a gated community where the combination of the interests and the actions of Yeni Iskele municipality, developer companies such as Noyanlar Construction Group, the media and consumers recommended that prevailing new structural conditions in the process of urbanization. It happens while the interconnections between these systems assured that future proliferation of such environmental developments in the region. ***(Gating machinery systems)***

In the social context, this condition provided by these systems can either cause different social-spatial inequalities. For instance, as it observed, the facilities in the complex such as playground and other are only can be used by inhabitants, not outsiders. Through the process of making this built environment privatized and use the exclusivity of the space, the privatization of space created a legal framework to deny the public access to the goods in the complex within a controlled space which generally represented two-folded purposes: (1) permanently rejecting nonmembers access to the facilities and spaces which were provided in this complex. (2) To offer as a material representation of exclusivity for inhabitants. ***(Gating machinery systems, Turbulence in built environment/Homogenization of space)***

As it observed, the consequences which can be mentioned are;

- The exterior spaces were able to be the centers of integration where inhabitants of the region by considering widely their divergent social factors such as age, race, ethnicity and income, working and living in more close proximity. In this sense, the complex was observed physically and socially isolated through its denying nonmembers access to this built environment and therefore, ***this emerged private space presents itself acutely homogenized place, contributing to the spatial stratification of the urban setting. (Gating machinery systems/Turbulence in built environment/Homogenization of space)***
- As the built environment is observed privatized within its physical barriers, were also considered as an evidence of social classification. ***In this regard, these physical barriers***

present and bear both symbolic meanings and practical impacts that not only represent current social interactions, but will continue to affect social setting through time. ***(Gating machinery systems/Turbulence in built environment/Homogenization of space)***

- The social proliferation happened in the Royal Sun Residence Complex created a significant social disadvantage for the larger society in the Yeni Iskele district, because the social homogeneity- especially in terms of financial classification- within this built environment is dominantly higher than outside of this complex and ***consequently, it results to increase in urban segregation.*** ***(Gating machinery systems/Turbulence in built environment/Homogenization of space)***
- The political economy of place concentrated on the highlighting current of urban economic growth through achieving the interplay of capital, interests and new urban development in the region which is mostly consisted of gated communities including Royal Sun Residence Complex. ***(Gating machinery systems)***

The other point which is observed is the different directions of the forms in the complex. In this sense, because of high vertical and horizontal density, the units are only have east and south natural light and in most of the cases, north and west. So, the climatic and thermal comfort issues emerged in such a distinct context caused many problems which had to be solved by consumption of energy and water sources. So, by not taking into consideration the climatic and microclimatic issues in such a hot and humid context may cause many problems in the living environment such as observed; ***(Decontextualization of built environment/Superficiality in space)***

- **Disturbing interior spaces:** as it was observed, the interior spaces all around this environment are not sufficiently designed, by considering their location, orientation, depth, the sun and wind direction, material used in construction, etc. In some cases, the living spaces are oriented towards the directions without any environmental consideration in order to protect the spaces from deep natural light which was heating badly the interior spaces(The 2+1 houses facing the pool, and the apartments which are both facing to the west) . The less depth of the spaces was also increasing the problem created by location and orientation as well. In the case of arbitrary arrangement of the living spaces, added to high density, the spaces were not able to be ventilated naturally in sufficient way, especially as it observed in

the second story of the houses and other spaces provided in five housing typologies. ***(Decontextualization of built environment/Superficiality in space)***

- **Useless outdoor spaces:** the ratio between the masses and ground developed such a spaces that can only have two possibilities, opened and out of climatic controlled, or functionally useless however they have possibilities to function by considering the shade they provides. In this context, the individuals prefer to spend more time in exterior spaces integrated to their housing units, so by lack of functionality of these spaces, the exterior spaces were not able to give the chance to the inhabitants to use them efficiently, and as it observed, they are encouraged to gather more in the facilities which were provided. ***(Decontextualization of built environment/Superficiality in space)***
- **Increasing energy consumption:** through resolving the impacts of neglecting the climatic parameters, the electrical and mechanical energy in use is increasing in this environment via utilization of the devices which can help to rectify these problems. They are mostly assembled on top of the roof or on the facades. In both cases, they caused many visual discouragements in the observation. In the case of devices assembled on the top of the roof, they are emphasizing on the repetitive organizations in the built environment. ***(Decontextualization of built environment/Superficiality in space)***

In addition, the visual and spatial continuities in the built environment from large scale to interior architectural scale were not maintained as well. This stressed more on the arrangement solution of the complex as introverted gated communities. ***(Gating machinery systems/ Decontextualization of built environment/Turbulence in built environment/Homogenization of space)***

As it observed, the new development in the region including Royal Sun Complex, did not have any consideration to condensing the space by new inhabitants, new population, and new physical contradictory density in the natural environment by applying the very geometrical ordering system of grid in order to organize the built environment when it is in contrast with the developed forms and natural urban sprawl in the region. ***(Gating machinery systems/Turbulence in built environment)***

In terms of housing typologies, according to the brochures given, and in the observations, there are 7 typologies in general constructed in the complex which are sorted own here. ***(Homogenization of space/Environmental universality)***

Two types of houses:

1. Pearl House: the pearl houses are 2+1 with 106 m^2 constructional area.

2. Stream House: the stream houses are 3+1 with 140 m^2 constructional area.

And five types of more condensed approach to housing:

1. Wave Apartments: the wave apartments consist of studio flats with 46m2 constructional area.

2. Sandy Apartments: the sandy apartments are consisted of 1+1 with 56-62 m2 constructional area.

3. Aqua Apartments: the aqua apartments are consisted of 2+1 with 92 m2 and 1+1 with 45-56-62 m2 constructional area.

4. Potamic Apartments: the potamic apartments are consisted of are 2+1 with 81-89 m2 and 1+1 with 52 m2.

5. River Apartments: the river apartments are consisted of 2+1 with 76 m2 and 1+1 with 57-68 m2 constructional area.

In the case of given brochures, all the components are the virtual materials which the observer, as an architect, concerned them more as a kind of representation that are not able to give an accurate perception of this built environment to the coming new inhabitants when they decided to purchase units according to the given visual information. The components were somehow more dynamic and cheerful than what exists in reality and representing the constructed spaces as more common spaces which can be seen in other geographical and contextual settings without regarding to the distinctive atmosphere prevailed on the Mediterranean coastline setting. ***(Gating machinery systems /Decontextualization of built environment /Homogenization of space/Environmental universality)***

Therefore, through the observation, the method of advertisement of properties was considered as useless and confusing visual (non-real) representations of ongoing or in progress project when a company attempts to give an unreal image of what the project is going to be. In such a case, the preliminary mental atmosphere was created intentionally to encourage the purchasers, which it can affect their decisions about their new living environment that later on, it may not satisfy their expectations. In this concept, as observed, in the colorful brochures, the events and social

dynamism in the built environment, is represented and promised fully active, strong, unique and exciting by giving an ideal of a universal organized atmosphere in which everybody is able to be adopted well and satisfied. But, the general appearance of this built environment represents chaotic, arising differences between it and the local architectonical characteristics of its settlement. ***(Gating machinery systems /Decontextualization of built environment /Homogenization of space/Environmental universality)***

In the architectural scale, the formative appearances of the housing typologies are designed in such a way that the observer has witnessed them in other contexts such as Turkey, Iran, etc. So, in this regard, it can be assumed as similarity in between the built environment that inhabitants were living in their origin context and new chosen built environment in Cyprus. Furthermore, the repetitive linear arrangement of similar form for the units, the material used, color, texture and size, facades articulation and in general, the general appearance of the forms, in the observation, illustrated themselves as similar repetitive masses that it was very difficult to identify one from others to address, to place and introduce to others. It was exactly observed during the discussion with the property seller when she wanted to address a specific unit which was already visited by us. ***(Decontextualization of built environment /Homogenization of space/Environmental universality)***

Being in this built environment, also, because of the close distance in between linear arrangement of the forms, same height of the forms which was surrounded by higher forms located in the site, ***gave the impression of placelessness so that people were all living in a one housing unit which was reproduced several times.*** In such context, without having any view to geographical and contextual distinctive components which were identified the place, ***the inhabitants somehow were isolated in an artificial framework of living in the environment.*** ***(Decontextualization of built environment /Homogenization of space/Environmental universality)***

As it observed, with accordance to their attitudes towards their living environment, there was no attempt observed to personalize the living outdoor spaces from each other by giving any specific identification to it through utilization of signs, colorful components, green elements, or changes in general formal appearance of their units. ***(Homogenization of space)***

In the case of architectural spaces constructed in all typologies, the different spaces and their organization, as spatial components of residential units are designed and constructed generally accepted as spatial norms in different contexts, without considering the local settlements which can be considered as a source of inspiration. ***(Decontextualization of built environment /Homogenization of space/Environmental universality)***

The repetitions of same architectural solutions vertically and horizontally are also observed in this environment. In the case of apartments, they were differentiated by using two different horizontal lines on the facades in two dominant colors (white and dark purple). The dark purple color used, does not have any specific cultural meaning in this context. ***These horizontal lines which emphasized the stories and the height of the buildings, are somehow expressed themselves like a belt which surrounded this built environment, because the highest masses are surrounding the house types at the middle.*** ***(Superficiality in space)***

In terms of materials used, the same colors and the textures are repeated all around the complex. The dark brown ceramics are used representing artificially timber on facades. The facades are covered actually with white cement and then, they are painted by two mentioned colors. The materials used for buildings' structures are also similarly consisted of reinforced concrete. The infill of post beam reinforced concrete frames are also made of hollow clay bricks. By giving such a repetitive artificial image to whole built environment, the distinguishable border in between natural and built environment is more emphasized because the masses by themselves, their colors, textures, and their materialistic identification which are opposed to the natural environment characteristics. ***(Decontextualization of built environment /Homogenization of space/Environmental universality/Superficiality in space)***

The materials used, also have been seen in other different contexts as common construction materials. The Scenographic method of using materials also concerned during the observation, when materials as one component of the structure are just communicated with this environment, not more widely with this specific context. ***It seems that the built environment is assaulted from the forces of scenography and modern commoditization. Subsequently, when the ontological nature of the structure and expressiveness of the joints were not considered, they were not able to give character to this place.***

In this sense, by considering the built environment as an ontological act, therefore, it is the creation of a thing rather than its representation. ***(Decontextualization of built environment /Superficiality in space/Environmental universality)***

As observed, especially in the case of 2+1 and 3+1 houses, the openings are arranged within the vertical planes off-centered, and in the main façade, also at corners turning. They were emphasized by combining an additive colorful frame in or by a subtractive in the cubical form of the units. The same approach has been applied all around the complex. The problem which was observed, here, the symmetrical linear arrangement of similar forms in very dense pattern, caused the privacy issues for different levels and interior spaces in the units when they are facing to the exterior spaces. Actually, they are limited to be close to the similar openings possessing to the neighboring units or the public accessibilities in very close distances. ***(Turbulence in built environment/Homogenization of space)***

Interior spaces are all arranged similarly by considering the maximum efficiency in terms of function. The functionality of the interior space is rationalized in a way that they offer the minimum possible dimensions. The living room, wet spaces such as toilets, kitchens and in the case of more private spaces, they are not able to be personalized by inhabitants by adding more desirable components such as furniture, because the spaces as observed are somehow designed accordance to applying a distinct standards for all components in the living spaces. This is, therefore, minimizing the possibilities and gives a sense that the spaces are not flexible enough to be reorganized by the users and redefined by them accordingly. ***(Homogenization of space)***

In the case of 2+1 and 3+1 houses, the bedrooms as observed, are designed in such a way that the only functionality that they can offer is to allocate inside a bed in very standard dimensions and nothing more. So the functionality of the bedrooms by regarding to their dimensions and their privacy issues are reduced to only offering minimum expectations of the space. ***In this sense, architectural spatial qualities were reduced to the basic functional requirements that were expected from them to fulfill. In the observer's point of view, this approach to the living spaces represents a kind of the controlling sense which was applied already to the space and by repeating it, the controlling sense was spread itself to all environment in every scale.*** ***(Homogenization of space/Environmental universality)***

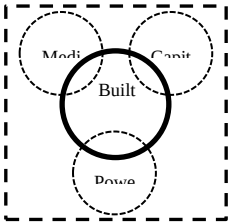
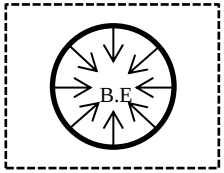
So, in time, it was supposed to be very boring to inhabitants that they were not able to identify their own living space and they had to similar spatial qualities as others have. It was also certified dominantly by Iranian women during the observer's instant conservation with them that they were concerning this issue when they were inviting the Iranian property seller in company with me to their units. ***(Decontextualization of built environment/Homogenization of space/Environmental universality)***

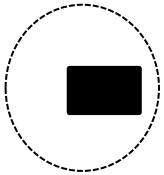
Appendix B: The Process of Coding the Data Materials, Categorizing the Topics and Generating Subthemes and Themes through Descriptions (3rd Draft)

Themes	**Building Machinery Systems**			**Environmental Universality (Environmental Mode)**							
	Achieving interplay of capital, interests, power and media through new urban development in the region			Transmission of the built environment into the universal mode without considering the contextual values							
Subthemes (2)	**Capital-Power-Media Interconnecting Systems (Technological Systematization)**			**Turbulence in Built Environment (Transmitting Environmental Mode)**							
	Prevailing this structural condition in the process of urbanization and assuring future proliferation of such environmental developments in the region through political economy of the region aiming to economic growth			Creating a turbulence in existing settings in order to build a Non-contextual contrasting entity (by considering the built environment NOT as an ontological act)							
Subthemes (1)	**Gated Community (Setting)**			**Decontextualization of Built Environment (Transmitting Environmental Mode)**		**Homogenization of Space (Transmitting Environmental Mode)**			**Superficiality in Space (Transmitting Environmental Mode)**		
Codes	Socially and physically isolated built environment (gated community) through privatizing the space and place aiming use of exclusivity of space			Decontextualization of natural setting to Non-contextual contrasting entity (by considering the built environment NOT as an ontological act)		Reproduction of similar physically and socially homogenized qualities (by considering the built environment NOT as an ontological act)			Reduction of built environment to non-contextual understanding of the living environment (by considering the built environment NOT as an ontological act)		
Emergent Codes	**Power and politics**	Political economy of the region	Prevailing this structural condition in the process of urbanization	**Emerging a contradictory environmental entity in contrast to the natural and social settings in the context**	Extensive land utilization emerged itself more intensive and artificial because of the buildings and their materialistic identification	**Isolation in a way to generate a homogenized environment with non-contextual/global mode**	No chance for creating possible continuity among different settings existing in the context, but in more larger-universal scale, it expresses more similarity with the same built environments		**Contradictory non-contextual materialistic identification of buildings opposed to other settings existing in the context**	No physical integration with natural environment (Detachment)	
							Physically an isolated built environment(no integration)				
							Developer provided this condition to establish exclusive control of natural environment as an amenity for its customers				
			Assuring future proliferation of such environmental developments in the region		Artificial occupation of natural environment and devastation of natural environment		Similar non-contextual/global solutions (housing typologies)				
					New ordering system for the Natural environment in which, natural environment does not have an identical role in the new ordering system		Similarity of built environment with other housing projects in other contexts				
							Very difficult to identify the distinct context and place			No physical integration with other built environments (Detachment)	
							Similar materialistic identification opposing to natural environment				
	Capital and Interests	Interests	Concentration on underlying current of urban economic growth		Emerging built environment is aggressively opposed to the natural setting's characteristics and being in contrast with natural environment	**Physical and social hegemony in terms of formative characteristics of the built environment**	Isolation	Introverted arrangement as gated community and no physical integration with other entities in the region			
					Lack of possibilities for natural environment to be reestablished						
		Financial offers	Condensing the capital in the developing region		Multi-cultural environment and contradictory responses of inhabitants through personalizing the space, different events and activities		Privatization	Permanently rejection of the non-members access and offering as a representation of exclusivity for inhabitants		Lack of physical continuity among different settings	
								Social-spatial inequality			
								Use the exclusivity of the space			
								Use a legal framework to deny the public access to the goods			
								Exterior spaces as center of integration in more close social proximity		Contradictory materialistic identification of buildings opposed to other settings	
								Urban segregation			
								Social classification			

					Isolation in the regional-social mechanism			Privatization within its physical barriers		
	Media	Developer	Targeting new inhabitants by promoting and encouraging	**Isolation in an artificial framework in the living environment and sense of placelessness**	Introverted built environment (gated community)	**Spatial hegemony through similar non-contextual solutions which are repeated all around the complex**	Introverted arrangement as gated community and no physical integration with other entities in the region	Not maintained visual continuity in the built environment in different scale	**Non-contextual arbitrary arrangement of built environment through grid ordering system**	Grid ordering system
			Intentional unreal image of built environment through representation of more universally organized atmosphere		Lack of natural/geographical reference (disorientation-dislocation)					Introverted built environment (gated community)
					High density, high proximity (privacy issues) and inner forms are surrounded by higher forms in the built environment			Not maintained spatial continuity in the built environment in different scale		Simple repetitive formal additions and subtractions
										Similar housing typologies
		Municipality and developer	Networking system aimed to achieve an economic growth		Repetitive linear arrangement of the similar forms in grid system of arrangement					Privacy issues (Proximity)
										Issues of Spatial Hierarchy
	Urban Development	Gated community as a model of housing	Socially and physically isolated built environment through privatization		Similar housing typologies to other contexts and non-contextual spatial norms repeated in all typologies		Similar repetitive spatial solutions and qualities through a limited housing typologies in a grid system familiar in different contexts	Reproduction of similar solutions (non-contextual) in terms of typical spaces, size, material used (colors, textures), high density and high proximity		Set of linear physical entities
			Homogenized place		Arbitrary arrangement in terms of climatic considerations					Set of modular-similar forms
			Urban segregation		Repetitive artificial and culturally meaningless materials, textures and colors			Reduction of functionality of the space to the minimum expectations		Arbitrary arrangement of forms in terms of climatic considerations
			Privatization of the space through developer's effect upon local politics for privatization of natural environment		Scenographic approach to materials and structure					Introverted arrangement
					Modern Commoditization		Same spatial dimensions applied order to represent maximum efficiency	Minimizing the possibilities for the space to function		Orientation of the units (disturbing interior spaces)
								Same attitude towards the façade organizations		Location of the spaces (useless outdoor spaces)
			Social stratification in urban setting		Utilization of similar non-contextual materials			Similar additions and subtractions on the repeated cubical forms		Depth of the spaces
								Symmetrical linear arrangement of similar forms in very dense pattern		Energy consumption for thermal comfort
										Issues of density
										Issues of Proximity
										No embedded landscape qualities
										Repetitive artificial and culturally meaningless materials, textures and colors
										Scenographic approach to materials and structure
										Modern Commoditization
										Utilization of similar non-contextual materials

Appendix C: Analysis on Interconnection between Themes, Subthemes and Issues of Modern Technology

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples Analysis	On the Case
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Systematization	The accomplishment of coordination media, money, power and technology in the construction of new built environment	The pervasive interconnection between technological systems of media, capital, power and technology is emerging itself in construction companies which have taken responsibilities to construct new built environment. In this sense, Noyanlar Group can be considered as evidence to represent this coordination. **Textural Interpretation:** The built environment is the representation of the coordination and interconnection emerged in between technological systems of media, capital and power through the process of rationalization and technological ordering (Rationalization).	 Interconnections in Technological Systematization	
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Systematization	Emerging of a gated community-new built environment-with less adjustment to the natural environment caused by the procedure of technological systematization	Royal Sun Residential-Recreational Complex as a gated community has less adjustment to surrounding natural setting, and even more, it is aggressive to it. -Land use has been vastly changed. -Biodiversity of the region by increasing the population and furthermore, by pollution is changing. -Climatic issues are not taken into consideration carefully. -Views and vistas are changed -Marine ecosystem and coastline are affected. -Form of development of the region has been changed. **Textural Interpretation:** Technological systematization, in the process of forming the built environment, neglects the values of natural environment through rationalizing its adjustment to the existing setting (Decontextualization).	 Natural Environment	 

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples Analysis	On the Case
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Systematization	Emerging of a gated community with less adjustment to the social environment caused by the procedure of technological systematization	Royal Sun Residential-Recreational Complex as a gated community has less adjustment to social structure of the district, and even more, it is aggressive to it. **Textural Interpretation:** Technological systematization, in the process of forming the built environment, neglects the social structure through rationalizing its adjustment to the existing setting (Decontextualization).		
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Formation of Standards	Decontextualized and globalized form of living: In any and every context, the attitude of technology is essentially under the very same principle of 'efficiency'. It means that the same standards of measurement can be exerted to it in variable settings	Through decontextualization of the built environment, the lifestyle of inhabitants is affected through neglecting the context and physical characteristics of the environment. **Textural Interpretation:** By considering the technological principle of efficiency as a technological standard for forming the built environment, the form of living is reduced to the more global dimension without considering the multiple mono-settings of living forms based on distinction of the context (Homogenization).	-the inhabitants are mostly not involved to economic and social mechanism of the district. -the inhabitants mostly use their units for leisure time in spring and summer time. -a kind of consumerism is happening through their absence in modern materialistic and cultural production processes in the society.	 
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Formation of Standards	Architectural objects are allowed to arrive at universal standard through mass-media, setting up a new universal place, more and more, identify people as familiar	Formative and spatial characteristics of the complex represent similarities trough different social mediums with other same gated communities in which recent global values have more emphasized than the ones that are rooted to this distinct context. **Textural Interpretation:** Formative and spatial characteristics of the environment formed through the process of technological rationalization and standards emerged with, set up a new universal place and consequently identify people as familiar (Homogenization+Decontextualization).	-Homogenization in built environment, and consequently, turbulence in between the context and new formed environment. -Scenographic use of globalized material and structures without considering the local possibilities. -Superficial modernization of built environment. -Virtual representations of the provided environment in which the coming inhabitant may not perceive accurately the spatial qualities of the place as same as they are able to comprehend in real environment.	

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples	
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Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Formation of Standards	Playing down the architectural functioning of spaces to a standard emerged by the concept of efficiency in technological social orders	Architectural spatial qualities are reduced to basic functional requirements that are expected from them to fulfill. **Textural Interpretation:** Functional standards emerged through concept of technological efficiency and powerful influence of technological rationalization represents itself in reduction of the architectural-spatial qualities of space to the basic level of fulfilling functional requirements (Modernist understanding of function).		
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Generation of Norms for Production	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	1. The formal configuration is based on universal-technological norms for such projects, in which the norms are all rooted in efficient ordering process without considering climatic and contextual aspects. **Textural Interpretation:** In the context of technological progressing in built environment, the architectural forms emerged represent the reduction of formative aspects to the universal norms based on efficient ordering process of technology (Homogenization+ Decontextualization).		

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
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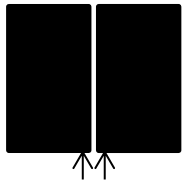
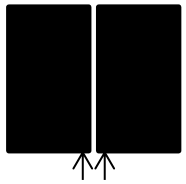
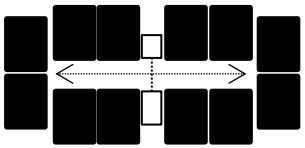
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Generation of Norms for Production	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	2. The different spaces and their organization, as spatial components of residential units are designed and constructed generally accepted as spatial norms in different contexts, without considering the local spatial qualities existing in local settlements which can be considered as a source of inspiration.	Pearl Houses (2+1,106 m2) 	
					Stream Houses (3+1,140 m2) 	
					Wave Apartments (46m2) 	

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples	
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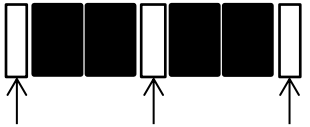
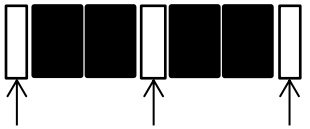
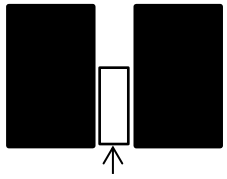
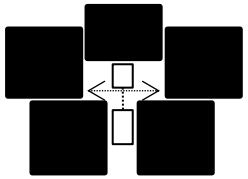
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Generation of Norms for Production	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	2. The different spaces and their organization, as spatial components of residential units are designed and constructed generally accepted as spatial norms in different contexts, without considering the local spatial qualities existing in local settlements which can be considered as a source of inspiration.	Sandy Apartments (1+1, 56-62m2) 	
					Aqua Apartments (2+1, 92m2) and (1+1, 45-56-62m2) 	
					Potamic Apartments (2+1, 81-89m2) and (1+1, 52m2) 	

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples	
					Analysis	On the Case
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Generation of Norms for Production	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	2. The different spaces and their organization, as spatial components of residential units are designed and constructed generally accepted as spatial norms in different contexts, without considering the local spatial qualities existing in local settlements which can be considered as a source of inspiration. **Textural Interpretation:** Technological rationality represents itself through reproduction and repetition of similar spatial organization of archetypes as accepted universal norms in the built environment (Homogenization+ Decontextualization).	River Apartments (2+1, 76m2) and (1+1, 57-68m2) 	
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Autonomy of Technology	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	3. The climatic issues, such as sun and wind incidence, natural light, views, humidity, atmospheric conditions and vegetation are not taken into consideration. **Textural Interpretation:** In the context of technological progressing in built environment, the built environment represents itself by reduction of ecological aspects influencing living spaces to the universal norms based on efficient ordering process of technology (Homogenization+ Decontextualization).		

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
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Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Autonomy of Technology	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	4. The cultural values of the place is not taken into consideration at all, however, the universal aspects are dominated in the process of technological ordering. **Textural Interpretation:** Cultural and mono-cultural values are isolated in the rationalization process of technological production towards building a living environment based on the norms concluded from technological possibilities (Homogenization + Decontextualization).		
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Autonomy of Technology	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	5. The universally common materials have been used, such as concrete, different types of glasses, and so on. **Textural Interpretation:** The materiality of architecture is impacted by rationalized approach of technological progressing towards built environment in way that the body of architecture by the materials in used represents typical-universal understanding of architectural appearance. In this ground, architecture also is isolated from local understanding of the body of architecture (Homogenization + Decontextualization).	 	

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
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Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Autonomy of Technology	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	6. The construction method is also based on the common contributions with the technological norms of production. **Textural Interpretation:** Building the environment including its process, methods and affair is reduced to a commonly accepted approaches rooted in technological rationalization of generating norms.	 	
Rationality and Artificiality	Presenting mechanics as a powerful influence for all that is unconstrained or irrational	Autonomy of Technology	Generation of norms to produce a built environment can be investigated in different aspects of architecture: (1) genesis of forms, (2) reproduction of different types of spaces and spatial organization, (3) the way of facing with the climatic and microclimatic parameters, (4) the way of facing with the cultural values, (5) materials, (6) method of construction, (7) structure, and so on. They are all rooted in the norm of efficient ordering process of technology in which different aspects of context is neglected.	7. The structure used, also follows the technological-structural norms in common everywhere. **Textural Interpretation:** Structural solutions represent themselves as common universal norms created by efficient technological ordering systems of rationalization (Modernist understanding of structure based on scientific rationalization).		

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples	
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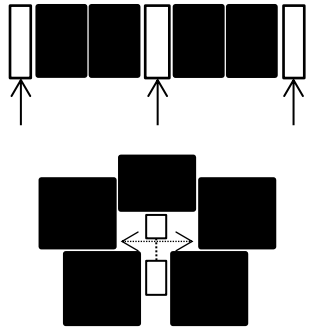
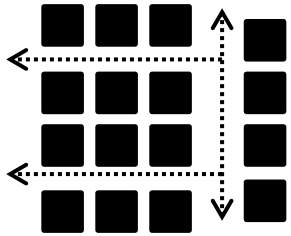
Rationality and Artificiality	Technology represents itself as process of making an artificial framework against natural world	Artificial world made by the accumulation of technological means, not similar to natural world	The less integration of built environment and architecture with natural setting or even opposing it.	The artificial built environment, here, has been made by considering the technological possibilities. This new setting is somehow disconnected or even more, opposed to the natural characteristics of the context. **Textural Interpretation:** The accumulation of technological means in the process building the environment causes an artificial framework in which the built environment tends to be opposed to its surrounding natural world. In this sense, the natural world is not protected and it is assumed aggressively as standing-reserve (Turbulence).	-Coastline and the built environment -Mesaoria plain and the built environment - devastation of the natural morphology of the natural setting in order to create a new pattern in the natural environment	 
Rationality and Artificiality	Technology represents itself as process of making an artificial framework against natural world	Subordination, wiping out and crushing of natural world: No permission for the natural world to reestablish itself or even no permission for advantageous connection with artificial world	When the natural environment and the land have been reshaped into built environment, the essence of the environment will be transformed into the possibility that do not let the natural environment to reestablish itself or entirely, having possibility to get connection with artificial world	By transforming the natural characteristics of the context, creating structural conflicts in the natural setting, and removing or manipulating the components, the new established entity does not give permission to the major natural components to rectify the absents of themselves in time. **Textural Interpretation:** The subordination and transformation of the natural setting into technological framework, the built environment will emerge itself only in artificial dimensions of disconnection with context (Turbulence+Decontextualization).		

Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
	Indicators (Codes)		Subjectivities	Observations	Examples	
					Analysis	On the Case
Automatism of Technological Choice	Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)	Indisputably, the inhabitants choose the possibilities which provided by technological mechanism without considering the individual preferences. In such a context, human being neither is nor does anything of the sort and he is just a device for recording affects and outcomes obtained by diverse technological methods in the built environment.	The general layout of the residential complex has been observed as decision upon mathematical process of measurement and calculation; aimed to fulfill expectations or needs from the rational point of view. It is aimed to satisfy the maximum efficiency and productivity of occupied space by the project in order to provide maximum amount of built-indoor residential spaces in relative with outdoor-shared space. In this concept, It can be considered as a result of possibilities that technology provides to apply more mathematical facts which have no any personal or in general human being references for high-rising or squeezing the living spaces. In this sense, technological movement towards ordering the built environment is self-directing. Consequently, the personalization of living spaces will be refused as individual's way of participation in forming the environment.	-Housing typologies: can be considered as the results of rational approach towards satisfying the maximum efficiency and productivity of occupied space (Homogenization in space).	
				-Spatial qualities: can be considered as the outcome of technological process of measurement and calculation to fulfill expectations or needs from only rational point of view (Homogenization in space).		
				-Structure: can be considered as the outcome of technological process of measurement and calculation to fulfill expectations or needs from only rational point of view.	 	

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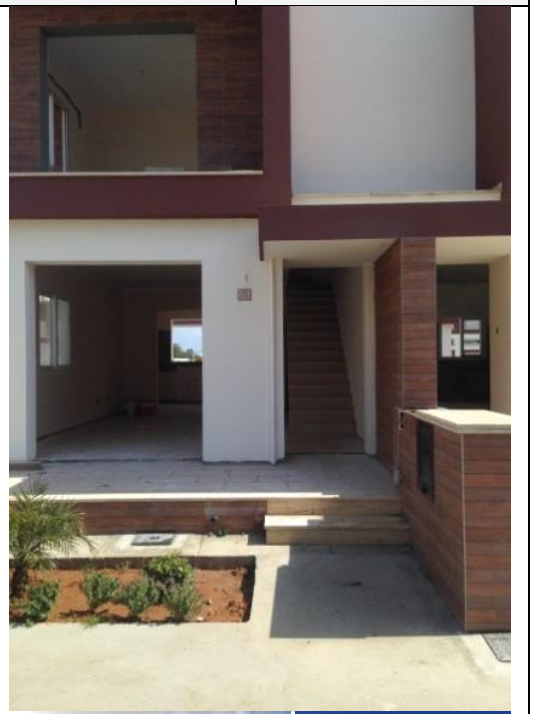
Automatism of Technological Choice	Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)	Indisputably, the inhabitants choose the possibilities which provided by technological mechanism without considering the individual preferences. In such a context, human being neither is nor does anything of the sort and he is just a device for recording affects and outcomes obtained by diverse technological methods in the built environment.	The general layout of the residential complex has been observed as decision upon mathematical process of measurement and calculation; aimed to fulfill expectations or needs from the rational point of view. It is aimed to satisfy the maximum efficiency and productivity of occupied space by the project in order to provide maximum amount of built-indoor residential spaces in relative with outdoor-shared space. In this concept, It can be considered as a result of possibilities that technology provides to apply more mathematical facts which have no any personal or in general human being references for high-rising or squeezing the living spaces. In this sense, technological movement towards ordering the built environment is self-directing. Consequently, the personalization of living spaces will be refused as individual's way of participation in forming the environment.	-Material: can be considered in the technological mass-production of the materials in artificial process provided by technology. - Scenography can be considered entirely as outcome of field of technological efficiency imposed to architecture through mass-producing. - Superficial and decontextualized colors and texture of utilized materials. - Turbulence in space represented by material.	  	

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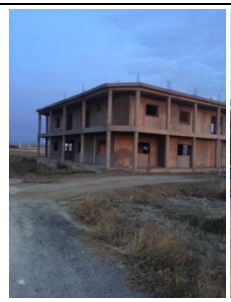
<tr><td></td><td colspan="2"></td><td></td><td></td><td>Analysis</td><td>On the Case</td></tr>
<tr><td rowspan="4">Automatism of Technological Choice</td><td rowspan="4">Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)</td><td rowspan="4">Indisputably, the inhabitants choose the possibilities which provided by technological mechanism without considering the individual preferences. In such a context, human being neither is nor does anything of the sort and he is just a device for recording affects and outcomes obtained by diverse technological methods in the built environment.</td><td rowspan="4">The general layout of the residential complex has been observed as decision upon mathematical process of measurement and calculation; aimed to fulfill expectations or needs from the rational point of view. It is aimed to satisfy the maximum efficiency and productivity of occupied space by the project in order to provide maximum amount of built-indoor residential spaces in relative with outdoor-shared space. In this concept, It can be considered as a result of possibilities that technology provides to apply more mathematical facts which have no any personal or in general human being references for high-rising or squeezing the living spaces. In this sense, technological movement towards ordering the built environment is self-directing. Consequently, the personalization of living spaces will be refused as individual’s way of participation in forming the environment.</td><td>-Ratio in between outdoor/indoor space: maximum proximity caused by technological process of synthesizing the space in mathematical mechanism without considering the human being as an agent of choice (Visual turbulence in the environment caused by paradoxes between existing pattern of settlements and new one).</td><td colspan="2">   </td></tr>
<tr><td>-Spatial Relationships: the formation of the environment can be carried out as automatically organized, formulated among the technological circle through the possibility does it chooses. As consequence, man is isolated of his faculty of choice. In this manner, man is stripped and satisfied by technological ordering of space.</td><td colspan="2">  </td></tr>
<tr><td>-Construction process: the process of construction represents itself as mathematical process to satisfy the maximum efficiency and productivity.</td><td colspan="2" rowspan="2">   </td></tr>
<tr><td>-Construction method: there is no possibility to choose between two technological methods of construction.</td></tr>
<tr><td colspan="5">Textural Interpretation:
The individuals as an agent of choice in forming the built environment are rejected and replaced with the process of technological ordering the space in the sense of maximizing the efficiency. In this regard, human autonomy is vastly transformed into technological automatism (Technological Automatism opposing the Human Autonomy in Forming the Built Environment).</td></tr>
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Problems of Modern Technologies (Themes)	Normative		Interpretive		Descriptive	
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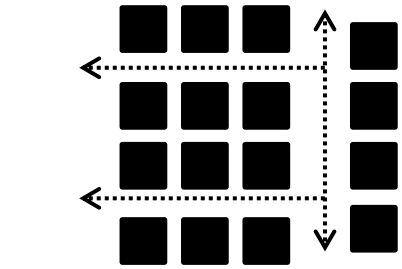
Automatism of Technological Choice	Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)	Issue of Urban Density: Morphological study in built environment, by considering the horizontal and vertical ratios between masses and ground.	The density of the occupied space is broadly representing a different morphological attitude towards the build environment. This ordering process does not tend to regard to the personal choice and it is concluded to maximum utilization of occupied space in order to represent entirely the technological mode of efficiency	- Horizontally, the ratio appeared in between masses and ground shows up a new understanding opposed existing patterns which can be exemplified in the context. The new density totally demonstrates that the formation of the built environment, based on the housing typologies accumulated together as general layout of the complex, is merely ordered the space with accordance to different choice, and in such process, individuals are not considered as an agent of the process of building the environment. In fact, the formation of the built environment can be considered morphologically as an outcome of automatism of Technological choice. - Vertically, the ratio appeared in between the masses and ground creates completely different silhouette and furthermore, a new skyline in the environment. In which, the new image of the built environment is evidently opposed to the general attitude of the man towards this context. The rising movement of the masses with high density, different directions states a different understanding of environmental ordering which is neglecting historical development of build environment in this context. Therefore, the matter of choice here can be expressed itself by its different root. **Textural Interpretation:** To represent entirely the technological mode of efficiency, automatism of technological choice opposed to the inhabitants as agent of choice, expresses itself in morphological attitudes emerged in built environment by technological ordering process (Technological Automatism opposing the Human Autonomy in Forming the Built Environment+Homogenization+Turbulence).	 

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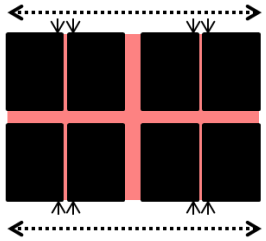
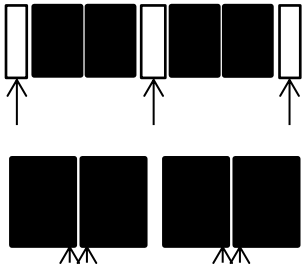
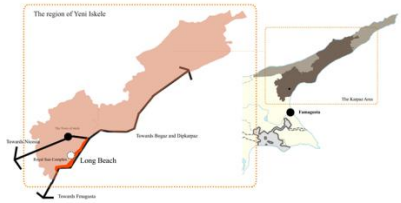
<tr><td></td><td></td><td></td><td></td><td>Analysis</td><td>On the Case</td></tr>
<tr><td rowspan="2">Automatism of Technological Choice</td><td rowspan="2">Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)</td><td rowspan="2">Issue of Proximity: by considering the width of in-between spaces among the masses, the privacy issues have been noticed through the observation.</td><td>The privacy issue caused by the density applied to formation of the environment can be considered as a kind of rejecting and refusing the personal choice, which is happened trough automatism of technological choice. In this sense, the process of creation of architectural spaces and their organization the man’s preference to perceive variation of space by different levels of privacy has been transformed to a technological process of ordering the space based on mathematical model of efficiency.</td><td>  </td><td>  </td></tr>
<tr><td colspan="3">Textural Interpretation: To represent entirely the technological mode of efficiency, automatism of technological choice opposed to the inhabitants as agent of choice, expresses itself in squeezing the occupied space emerged in built environment by technological ordering process without considering the varied levels of privacy and spatial hierarchy (Technological Automatism opposing the Human Autonomy in Forming the Built Environment+Homogenization+Turbulence).</td></tr>
<tr><td rowspan="2">Automatism of Technological Choice</td><td rowspan="2">Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)</td><td rowspan="2">Lack of opportunity to personalize the living spaces can be considered as a result of applying reiterative solutions in the process of ordering the built environment. Therefore, this approach to the space is kind of isolation of man as an agent of choice towards the automatism of technological choice.</td><td>The typical plans and other reiterative solutions in architectural scale: the typical repeated plans have decreased the personal alternatives and consequently, there is no one to change, or assert the contrary. In this sense, the personal choice for living space, and furthermore, the personalization of living space with all its own restrictions, has been concerned. As mentioned, in such a case, human being neither is nor does anything of the sort and he is just a device for recording effects and outcomes of his perception of offered spaces obtained by diverse technological methods.</td><td>  </td><td>  </td></tr>
<tr><td colspan="3">Textural Interpretation:
By considering the automatism of technological choice, human being neither is nor does anything of the sort and he is just a device for recording effects and outcomes of his perception of offered repetitive spaces obtained by diverse technological methods (Technological Automatism opposing the Human Autonomy in Forming the Built Environment+Homogenization+Turbulence).</td></tr>
</table>

Problems of Modern Technologies (Themes)	Normative	Interpretive		Descriptive	
	Indicators (Codes)	Subjectivities	Observations	Examples	
				Analysis	On the Case
Automatism of Technological Choice	Refusing to admit the personal choice, or rejecting human being as an agent of choice in any sense (Participation)	Inside the technological circle and among methods of constructions, the common formulas are carried out automatically the mechanism of built environment and organization of spaces in different scales. In fact, human life as a whole is not inundated by technology and it has room for activities that cannot be neglected or eliminated by rational and systematical orders of technology. However, technology intends to transform those nontechnical activities into technological.	This technological mechanism is also affecting all anthropological, cultural and even symbolic aspects of human life, such as human activity.	-Transportation: by new models of transportation introduced, it is more eased to move and replace to different spot or dwell in the places. New transportation systems also provide a ground to process of building the new environment to be done faster and simplified.	
			Textural Interpretation: Technological automatism through its ordering the process of building the living environment isolates all anthropological, cultural and even symbolic aspects of human activities. In this process, all non-technological aspects may also are played down into a new technological phenomenon (Decontextualization).	-Speeding up and even transforming the process of human non-technological activities: in this sense, the process of thinking, synthesizing the data received from natural and built environment, visualization of the knowledge, methods and consequently, the quality of built environment have been affected by technological and even transformed into a technological process.	 
Automatism of Technological Choice	Giving absolute value to technological progress, and technology	By giving merely emphasis on the technological progress and technology to build the environment, the role of humanistic, cultural and anthropological values will be played down in such a manner that the priority of construction of built environment will be basically dependent to human autonomy.	1. In the fast progress construction, it has been noticed.	The first phase of the project is finished by less than 2 years. The second phase of the project was in progress very fast, while this research was ongoing. Noyanlar group promises to finalize this phase till end of 2016.	 

<table>
<tr><td rowspan="2">Problems of Modern Technologies (Themes)</td><td>Normative</td><td colspan="2">Interpretive</td><td colspan="2">Descriptive</td></tr>
<tr><td>Indicators (Codes)</td><td>Subjectivities</td><td>Observations</td><td colspan="2">Examples</td></tr>
<tr><td></td><td></td><td></td><td></td><td>Analysis</td><td>On the Case</td></tr>
<tr><td rowspan="4">Automatism of Technological Choice</td><td rowspan="4">Giving absolute value to technological progress, and technology</td><td rowspan="4">By giving merely emphasis on the technological progress and technology to build the environment, the role of humanistic, cultural and anthropological values will be played down in such a manner that the priority of construction of built environment will be basically dependent to human autonomy.</td><td>2. In primitive and simplistic approaches to all aspects of architectural design and its outcomes, in selection of materials, in architectural solutions for facing with climatic considerations, and more; has been noticed.</td><td colspan="2">  </td></tr>
<tr><td>3. In initial architectural design steps, giving absolute value and trust to the computers and digital representations of the project has been noticed.</td><td>This new digital understanding of architectural design process creates another dimension for this study which can be deliberatively investigated in further steps of this research topic.</td><td> 
</td></tr>
<tr><td>4. In such a process of architectural design process, in which, there are no any contextual references considered, including the cultural preferences of residents and regional concerns about new developments, can be considered as a technological progressive activities which has been replaced with the authentic concepts of architecture as sheltering and dwelling.</td><td colspan="2">  </td></tr>
<tr><td colspan="4">Textural Interpretation: By giving absolute value to technological ordering of the built environment, different aspects of contextual understanding of the built environment and identity of place will be all reduced into a technological phenomenon. In which the role of humans through building the living environment is played down into a technological agent of choice. In fact, this is the technological progress that identifies the space and time (Turbulence+Decontextualization).</td></tr>
</table>

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<tr><td>Indicators (Codes)</td><td>Subjectivities</td><td>Observations</td><td colspan="2">Examples</td></tr>
<tr><td rowspan="4">Automatism of Technological Choice</td><td rowspan="4">Automatically invading and extending technology to all spheres of human being life</td><td rowspan="4">Technology by its automatic invading and extending progress will impact all the human activities including building the environment. So, the process of building the environment, in this sense, will be considered as the outcome of aggressiveness of technology towards human life.</td><td>1. Technology provides possibilities to all nontechnical activities transformed to technical activities; in this case, building the living environment has been affected as well. It is transformed into technical activity and technology guides human being to vastly occupy space to build.</td><td>Analysis</td><td>On the Case</td></tr>
<tr><td>2. The presence of all machines resulted by technology have been observed in process of fast construction, providing opportunity to easily build, vastly transform and devastate the natural context.</td><td>The construction of the complex in different phases has been defined. The first phase is almost finished during this study and the construction of second phase in ongoing.</td><td rowspan="2">  </td></tr>
<tr><td>3. Application and usage of modern technology caused that the residential complex being more and more independent from natural context and surrounding environment, consequently, this complex expresses itself more like a machine without any distinct spatial qualities.</td><td>This is evidently spread in the region by divesting the natural environment.it seems that the construction company that are actively present in the region do not follow any strategic plan which can rule and control the vast housing development in this region.</td></tr>
<tr><td colspan="3">Textural Interpretation:
Through automatically invading and extending technology to the process of building the environment, the architectural space just expresses itself as a machine for technological ordering of the built environment in which the role of human being is reduced to a technological automatism(Turbulence+Decontextualization).</td></tr>
<tr><td>Automatism of Technological Choice</td><td>Possibility of opposing to a technological force can be done only with another technological force</td><td colspan="4">No indications observed</td></tr>
</table>

Problems of Modern Technologies (Themes)	Normative	Interpretive		Descriptive	
	Indicators (Codes)	Subjectivities	Observations	Examples	
				Analysis	On the Case
Self-Argumentation	Reduction the role of human intervention	The intervention of man in the process of forming the built environment is restricted by technology. The role of man is replaced by the means which are representing that technological process of ordering, forming and organizing the environment and architectural space.	-It can be observed in the process of architectural design.		
			-It can be observed in the process of construction.	Many of building processes are completely done by construction machines or they have an important role to support the human sources.	
			- It can be observed in the process of organizing the human activities in the build environment.		
			-Homogenization of space, by considering typology, function, architectonics issues and spatial qualities which have been emerged. Actually, it disturbs the issue of personalization of living spaces.		
			Textural Interpretation: Through building the environment by the means which represent the technological process of ordering, forming and organizing the space, the role of human intervention is reduced to the process of technological self-argumentation. In such a space, the presence of human in the built environment will be minimized to only a consumer of space produced by technological progress (Turbulence+Decontextualization).		

<table>
<tr><td rowspan="3">Problems of Modern Technologies (Themes)</td><td>Normative</td><td colspan="2">Interpretive</td><td colspan="2">Descriptive</td></tr>
<tr><td>Indicators (Codes)</td><td>Subjectivities</td><td>Observations</td><td colspan="2">Examples</td></tr>
<tr><td colspan="2"></td><td>Analysis</td><td>On the Case</td></tr>
<tr><td rowspan="4">Self-Argumentation</td><td rowspan="4">Increasing number of similar inventions at the same time in different points</td><td rowspan="4">The similar technological inventions and interventions on the process of forming architectural spaces and built environment are increasingly applied.</td><td>-It can be observed in the process of architectural design.</td><td colspan="2"> 
</td></tr>
<tr><td>-It can be observed in the process of construction.
-It can be observed in the process of organizing the human activities in the build environment.
- It has been observed by looking at the machines used for construction</td><td colspan="2"> 
 </td></tr>
<tr><td>-These similarities may result into the homogenization of built environments, as it was observed by comparing such a complex with similar ones all around the world.</td><td colspan="2">  </td></tr>
<tr><td colspan="3">Textural Interpretation:
Through building the living environment by the increasing number of similar technological means which self-augmented, the architectural space will be emerged through technological ordering process that it has similar attitudes through the different distinct environmental settings (Homogenization+Decontextualization).</td></tr>
<tr><td>Self-Argumentation</td><td>The importance of gradual progress in technology and trivial advancement</td><td colspan="3">No indications observed</td></tr>
</table>

Problems of Modern Technologies (Themes)	Normative	Interpretive		Descriptive	
	Indicators (Codes)	Subjectivities	Observations	Examples	
				Analysis	On the Case
Self-Argumentation	Interaction between technological progression , community health, and human sources	By considering new mechanism defined by technology, the interaction in between technological progression and all components of body and content of built environment is directly connected to self-argumentation of technology.	-It can be observed in the process of architectural design. -It can be observed in the process of construction. -It can be observed in the process of organizing the human activities in the build environment. -It has been observed by looking at the all parameters involve to the process of building of living environment. -It disturbs the cultural identity of the region		
			Textural Interpretation: The self-augmenting attitude of technological ordering process in built environment represents the privilege of technological progression towards interacting with all components of body and content of built environment (Turbulence).		
Self-Argumentation	The importance of gradual progress in technology and trivial advancement	No indications observed			
Self-Argumentation	Solutions for the problems of technology by technology	No indications observed			
Self-Argumentation	Geometric progression of Technology instead of arithmetic progression	No indications observed			
Self-Argumentation	Technological progression in forward, and irreversible	No indications observed			

<table>
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<tr><td colspan="2"></td><td colspan="2">Analysis</td><td>On the Case</td></tr>
<tr><td>Monism</td><td>Similar emerged characteristics of a technological phenomenon in different context.</td><td>Technological as a co-ordinated phenomenon presents same attributes all over the place. It means that technology including its utilization, its affairs and the created environment by it, is unified and it cannot be considered separately. In this sense, it gives man no possibility to pick one up without having other ones because every part supporting and strengthening the others.</td><td>While forming the built environment becomes subordinate of technological progress, the built environment cannot have free relationship towards technology and it will be function of technological affairs and technological means.</td><td colspan="2">1. It has been observed in similar process of construction

2. It has been observed in similar machines used for construction

3. Similar technological solutions for ventilation of spaces

4. Similar technological solutions for lighting the spaces

5. Similar technological solutions for controlling temperature in spaces

6. Similar technological solutions in the process of architectural design in order to achieve maximum efficiency and maximum use of space.

7. Similar material used.</td><td> 
  </td></tr>
<tr><td colspan="5">Textural Interpretation:
Technological process of ordering the environment, as a co-ordinated phenomenon presents same attributes all over the place. In this regard, while forming the built environment becomes subordinate of technological progress, the built environment cannot have free relationship towards technology and it will be function of similar technological affairs, methods and means over the contextual understanding of space (Homogenization).</td></tr>
<tr><td>Monism</td><td>Lack of ability to analyze one part of technological phenomenon without considering the whole</td><td colspan="4">No indications observed</td></tr>
</table>

Problems of Modern Technologies (Themes)	Normative	Interpretive		Descriptive	
	Indicators (Codes)	Subjectivities	Observations	Examples	
				Analysis	On the Case
Technological Universalism	No restriction to pass the geographical borders	Technology as soon as it appears cannot be limited into its birthplace. So, it tends to make a wider ground for itself. In technological way of progress, by utilization of the instruments which technology promotes, there is an inclination to apply the same technological strategies to build the environment. In this sense, the technology passes the geographical, physical aspects of the context in order to build the environment.	1. Using similar materials, structures, construction methods 2. Using similar architectural approaches in order to build this complex, in comparison with similar building typologies around the world 3. Similar spaces have been emerged, in terms of the dimensions, proportions and all physical parameters of space. 4. Context and geographical characteristics of the site have not been taken into consideration 5. A multiple mono-cultural environment has been achieved, without considering the cultural differences	**Textural Interpretation:** In the context of aggressive technological progress, there is an inclination to apply the same technological strategies to the space. In this sense, the technology passes the geographical, physical borders of the context in order to build the environment in a wider ground as similar as its attributes towards other different environmental settings (Homogenization+Decontextualization).	
Technological Universalism	No restriction to pass the qualitative borders.	In this level, technology begins to domesticate all human activities in the physical context. In this sense, man himself is overwhelmed by technological progress as an extraordinary event and turns into its subject.	1. Using similar materials, structures, construction methods 2. Using similar architectural approaches in order to build this complex, in comparison with similar building typologies around the world 3. Similar spaces have been emerged, in terms of the dimensions, proportions and all physical parameters of space. 4. Context and geographical characteristics of the site have not been taken into consideration	**Textural Interpretation:** All human activities, including building the environment, are domesticated in such a way that they will be overwhelmed in technological progression. In this sense, technological ordering process has no restriction to pass the qualitative borders of the distinct context, and behaves universally (Homogenization+Decontextualization).	
Technological Universalism	Globalization	All-inclusive dialect comprehended by all men thorough science, leads of necessity to the technological universalism which originates from it. In this concept built environment as an outcome of technological circle presents itself as a representation globalized phenomenon.	These building typologies, construction methods, structural solutions, selection of materials are globally considered. In this built environment all universal accepted qualitative values are also dominated by neglecting the local ones.	**Textural Interpretation:** Regarding to the universally accepted qualitative values in the built environment, the local and contextual qualitative values are harshly not taken into consideration, in order to present a universal dimensions of space (Homogenization+Decontextualization).	

Problems of Modern Technologies (Themes)	Normative	Interpretive		Descriptive	
	Indicators (Codes)	Subjectivities	Observations	Examples	
				Analysis	On the Case
Autonomy of Technology	No impacts of external necessities(or phenomenon) to technology	This is technological progress which conditions, evokes and determines the aspects of formation of built environment via its internal necessities. In this sense, external necessities no longer provoke and conditions technology utilized in the process of building environment. This is technological progress which conditions, evokes and determines the aspects of formation of built environment via its internal necessities. In this sense, external necessities no longer provoke and conditions technology utilized in the process of building environment.	1. Climatic parameters: there is no authenticity in the selection of form and material in building. 2. Cultural parameters and values	**Textural Interpretation:** In the technological process of ordering the living environment, the systematization applied does not allow any external indicators to take part in setting mechanism of the environment and playing role as a parameter of the coordination. Through autonomy of technology in the process of building the environment, there is no impact by other external indicator allowed to coordinate in forming the environment (Decontextualization).	
Autonomy of Technology	The impacts of internal necessities of technology on technology	No indications observed			
Autonomy of Technology	Independency of technology in confronting with Economy, politic, humanistic values, and generally, by human being himself (Individuals).	By regarding to morality and spiritual values, technological mechanism of building environment illustrates clearly the technological autonomy opposed independently to human autonomy. In this regard, it implies man takes an interest less and less effectively in technological creation and the human being and its role will be reduced to the level of a catalyst in the process of forming the built environment. Therefore, he begins the operation without taking part in it.	There are no impacts of economy, politic. Humanistic values on technology; however, it affects those. In such a case, cultural identity and its correlation with technology can be investigated. In this concept, architecture cannot act as a structure for turning technology into humanistic concept included place values.	**Textural Interpretation:** Technological ordering the environment reduces the role of humans into the subject of the technological progression in a manner that technological autonomy will make the living environment more and more independent from the human activities and his roles (Turbulence).	

Appendix D: Sample of Questionnaires (English and Turkish Versions)

D-A: English Version

Dear Resident of Royal Sun Residential Complex;
Hi;

This questionnaire has been provided to investigate your ideas and concerns about architectural qualities of your living spaces in Royal Sun Residence, Yeni Iskele District. It would be grateful if you kindly consider it and help this research to be finalized through your important opinions about your living environment. Without doubt, your lived experiences about this built environment help the study to be more accurate and deliberate. Thanks in advance for your help.
It has to be mentioned also this research is in progress by graduate architecture student, Kamiar Yazdani, Department of Architecture, Faculty of Architecture, Eastern Mediterranean University, Famagusta, North Cyprus.

Firstly, please answer these introductory questions.
Some questions are optional to be answered, if you would not prefer you may leave them unanswered.

Name and Surname (optional): ……
Nationality:
O Turkish-Cypriot O Greek-Cypriot O Turkish O Iranian O Russian
O Other Nationalities……..
Age Range:

O 15-20 O 20-30 O 30-40 O 40-50 O 50-60 O 60-70
O over 70 years old
Gender: O Female O Male
Do you permanently live in this residential complex? O Yes O No
If (No)…please define your status according to the duration of residency in a year.
O less than a month O one to three months
O three to six months O six to twelve months

If you would like to contribute more in this study, if it is necessary, you may write any contact link here (phone number, mail address, etc.). It will be kept as the confidential information with the researcher (Optional).

O According to your lived experience, which indicator or indicators in surrounding natural setting of Yeni Iskele district written below, is successfully integrated with your living environment?

----- Species and Habitats in the wider countryside (biodiversity)
----- Water sources (surface water, ground water…)
----- Marine Ecosystem
----- Land Use (forestry and woodland, permanent grassland, rough grassland, inland water…)
----- Topography
----- Climatic considerations
----- Views and Vistas
----- Form of development
----- Existing buildings
----- Other (please write down your own ideas);

O According to your experience of your living environment and the spatial qualities (interior and exterior) that you are living in, do you think that the built environment is adjusted to the surrounding natural environment in Yeni Iskele district?

--- YES. It is adjusted
--- NO. It is not adjusted.

If (No), how much is it? … (There are seven different degrees, please choose one more close to your preference for each set of opposite concepts)

Visible (Perceivable) -----:-----:-----:-----:-----:-----:----- Invisible (Not Perceivable)
Ambiguous (Artificial) -----:-----:-----:-----:-----:-----:----- Clear
Accidental -------:-------:-------:-------:-------:-------:------- Controlled
Strong -------:-------:-------:-------:-------:-------:------- Weak
Simple (Rational) -----:-----:-----:-----:-----:-----:----- Complex (Irrational)

O According to your lived experience, which indicator or indicators written below express lacking adjustment of your built environment with surrounding social setting in Yeni Iskele district?

--- Demographic structure
--- Culture and mono-cultures
--- Security of land and housing tenure (owned, purchasing, private rental, social housing…)
--- Housing Affordability and economic issues (housing price, rent-to-income)
--- Eviction of old inhabitants of the area
--- Durability of housing structures
--- Location of housing structures
--- Sufficient living area
--- Travel time and travel mode
--- Unemployment
--- Other (please write down your own ideas);

O According to your experience of your living environment and the spatial qualities (interior and exterior) that you are living in, do you think that the built environment is adjusted to the social setting of the Yeni Iskele district?

--- YES. It is not adjusted.
--- NO. It is adjusted.

• If (NO), how much is it? … (There are seven different degrees, please choose one more close to your preference for each set of opposite concepts)

Visible (Perceivable) -----:-----:-----:-----:-----:-----:----- Invisible (Not Perceivable)
Ambiguous (Artificial) -----:-----:-----:-----:-----:-----:----- Clear
Accidental -------:-------:-------:-------:-------:-------:------- Controlled
Strong -------:-------:-------:-------:-------:-------:------- Weak
Simple (Rational) -----:-----:-----:-----:-----:-----:----- Complex (Irrational)

O Is your living environment adjusted to your preferences?

--- YES, it is adjusted.
--- NO, it is not adjusted.

O Have you been considered as an agent of choice in the process of building this living environment in this area?

--- YES, I have been considered.
--- NO, I have not been considered.

O Please read carefully the statements mentioned below, and answer which statement you are (Agree) or (Disagree).

1. I had this opportunity to take role in forming my living environment.

---Agree ---Disagree

2. In my living environment, I would like to experience more cultural integration with my original culture that I come from.

---Agree ---Disagree

3. My living environment is adjusted to my understanding of the qualities of architectural space.

---Agree ---Disagree

4. My living environment is (not) satisfied my expectation of functionality of architectural space?

---Agree ---Disagree

5. The rational attitude used in shaping my living space, are fulfilled successfully my expectations. ---Agree ---Disagree

6. The spaces that I am living in have the maximum efficiency.

---Agree ---Disagree

7. The repetitive solutions used in my living space, such as typical plans, are successfully fulfilled my expectations. ---Agree ---Disagree

8. I have problem when I am seeing my other neighborhoods are living in exactly same space that I living in.

---Agree ---Disagree

9. I had chance to choose and personalize the space that I am living in.

---Agree ---Disagree

10. The materials used in the buildings facades; interior space and public spaces represent the location that I am living in. ---Agree ---Disagree

11. The materials used in the buildings facades; interior space and public spaces are not as similar as the construction material used in my country.

---Agree ---Disagree

12. The construction materials which are applied to the surfaces in my living environment look like decoration.

---Agree ---Disagree

13. I am satisfied by the closed distance that my living space have with my neighbors' living spaces. ---Agree ---Disagree

14. I preferred to have more public spaces and more outdoor living spaces in my living environment. ---Agree ---Disagree

15. Less distance in between my living space with my neighbors' living spaces shows the maximum efficiency of use of the space.

---Agree ---Disagree

O How did you get informed about Royal Sun Residence project?

--- Newspapers
--- TV advertisements
--- Social Medias
--- Relatives
--- Direct contact with Noyanlar Groups
--- Others

O Do you think a similar complex can also be built in another geographical context?

--- YES, It can be.
--- NO, It cannot be.

O Please consider your living space (Royal Sun Residence) and choose the most appropriate degree in between the seven different degrees according to building types, sizes, styles and your priority qualities.

(There are seven different degrees, please choose one more close to your preference for each set of opposite concepts)

Royal Sun Residence Complex is…

Simple	------- : ------- : ------- : ------- : ------- : ------- : -------	Complex
Beautiful	------- : ------- : ------- : ------- : ------- : ------- : -------	Ugly
Strong	------- : ------- : ------- : ------- : ------- : ------- : -------	Weak
Rational	------- : ------- : ------- : ------- : ------- : ------- : -------	Intuitive
Unique	------- : ------- : ------- : ------- : ------- : ------- : -------	Common
Ambiguous	------- : ------- : ------- : ------- : ------- : ------- : -------	Clear
Exciting	------- : ------- : ------- : ------- : ------- : ------- : -------	Calming
Interesting	------- : ------- : ------- : ------- : ------- : ------- : -------	Boring
Confined	------- : ------- : ------- : ------- : ------- : ------- : -------	Spacious
Good	------- : ------- : ------- : ------- : ------- : ------- : -------	Bad
Accidental	------- : ------- : ------- : ------- : ------- : ------- : -------	Controlled
Open	------- : ------- : ------- : ------- : ------- : ------- : -------	Closed
Superficial	------- : ------- : ------- : ------- : ------- : ------- : -------	Profound
Permanent	------- : ------- : ------- : ------- : ------- : ------- : -------	Temporary
Chaotic	------- : ------- : ------- : ------- : ------- : ------- : -------	Ordered
Uncomfortable	------- : ------- : ------- : ------- : ------- : ------- : -------	Comfortable

D-A: Turkish Version

Sayın Royal Sun Residence Kullanıcıları;
Merhaba;

Bu anket Yeni İskele İlçesinde bulunan Royal Sun Residence yerleşiminde, yaşam alanlarınızdaki mimari nitelikler hakkında fikir ve kaygılarınızı araştırmak için hazırlanmıştır. Bu araştırmaya koyacağınız önemli katkılarınız yaşam alanlarınız hakkındaki görüşleriniz doğrultusunda sonuçlandırılacaktır. Kuşkusuz, bu yapılı çevre ile ilgili yaşadığınız deneyimler çalışmanın daha doğru ve bilinçli olmasına yardımcı olacaktır. Yardımlarınız için şimdiden teşekkür ederiz.
Bu araştırma Doğu Akdeniz Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümünde yüksek lisans öğrencisi Kamiar Yazdani tarafından devam etmektedir.
Öncelikle lütfen giriş sorularını cevaplayın.
Bazı sorular isteğe bağlıdır, eğer cevaplamak istemezseniz boş bırakabilirsiniz.
Ad ve Soyadı (isteğe bağlı): ……
Uyruk:
O Kıbrıslı Türk O Kıbrıslı Rum O Türk O İranlı O Rus
O Diğer……..
Yaş:
O 15-20 O 20-30 O 30-40 O 40-50 O 50-60 O 60-70
O 70 yaş üstü
Cinsiyet: O Bayan O Bay
Bu konut yerleşiminin devamlı kullanıcısı mısınız? O Evet O Hayır
Eğer cevabınız hayır ise yıllık konutu ne kadar kullandığınıza göre belirtiniz.
O bir aydan az O 1-3 ay
O 3-6 ay O 6-12 ay

Bu çalışmaya daha çok katkıda bulunmak isterseniz, herhangi bir iletişim bilginizi (telefon numarası, e-posta adresi, vb) yazabilirsiniz. Bu bilgiler araştırmacı tarafından gizli bilgi olarak tutulacaktır (isteğe bağlı).
……

O Aşağıda belirtilen Yeni İskele ilçesinin doğal ortamını çevreleyen gösterge veya göstergelerden hangileri başarılı bir şekilde yaşam ortamınız ile entegre edilmiştir?

----- Geniş kırsal türleri ve kaynakları (biyolojik çeşitlilik)
----- Su kaynakları (yerüstü suyu, yeraltı suyu…)
----- Deniz ekosistemi
----- Arazi kullanımı (orman ve ağaçlık arazi, kalıcı çayır, yabani çim, iç sular…)
----- Topoğrafya
----- İklimsel koşullar
----- Manzara ve perspektifler
----- Yerleşimin biçimi
----- Mevcut yapılar (binalar)
----- Diğer (lütfen kendi düşüncelerinizi yazınız);

O Deneyimlerinize göre yapılı çevre yani yaşadığınız yaşam ortamınız ve mekânsal kalite (iç ve dış) nitelikleri, Yeni İskele ilçesi doğal çevresine uygun olduğunu düşünüyor musunuz?

--- EVET. Uygundur.
--- HAYIR. Uygun değildir.

Eğer (HAYIR) ise, ne kadardır? … (Yedi farklı derece vardır, lütfen tercihinize göre karşıt kavram setinden birini seçiniz)

Görünür (Hissedilebilir) -----:-----:-----:-----:-----:-----:----- Görünmez (Hissedilemez)
Belirsiz (Yapay) -----:-----:-----:-----:-----:-----:----- Net
Tesadüfi -------:-------:-------:-------:-------:-------:------- Kontrollü
Güçlü -------:-------:-------:-------:-------:-------:------- Zayıf
Basit (Mantıklı) -----:-----:-----:-----:-----:-----:----- Karmaşık (Mantıksız)

O Deneyimlerinize göre aşağıda belirtilen hangi gösterge veya göstergeler yapılı çevre yani yaşadığınız ortamın Yeni İskele ilçesinin sosyal çevresine uygun OLMADIĞINI kanıtlamaktadır?

--- Demografik yapı
--- Kültür
--- Arazi ve bina mülkiyeti güvenliği
--- Bina alına bilirliği ve ekonomik konular (konut fiyatı, yatırım)
--- Bölge kullanıcılarının tahliyesi
--- Binaların dayanıklılığı
--- Binaların konumu
--- Yeterli yaşam alanı
--- Ulaşım zamanı ve ulaşım şekli
--- İşsizlik
--- Diğer;

O Deneyimlerinize göre yapılı çevre yani yaşadığınız yaşam ortamınız ve mekânsal kalite (iç ve dış) nitelikleri, Yeni İskele ilçesi sosyal çevresine uygun olduğunu düşünüyor musunuz?

--- EVET. Uygundur.
--- HAYIR. Uygun değildir.

• Eğer (HAYIR) ise, ne kadardır? … (Yedi farklı derece vardır, lütfen tercihinize göre karşıt kavram setinden birini seçiniz)

Görünür (Hissedilebilir) -----:-----:-----:-----:-----:-----:----- Görünmez (Hissedilemez)
Belirsiz (Yapay) -----:-----:-----:-----:-----:-----:----- Net
Tesadüfi -------:-------:-------:-------:-------:-------:------- Kontrollü
Güçlü -------:-------:-------:-------:-------:-------:------- Zayıf
Basit (Mantıklı) -----:-----:-----:-----:-----:-----:----- Karmaşık (Mantıksız)

O Yaşadığınız yaşam ortamı tercihlerinize uygun mudur?

--- EVET, uygundur.
--- HAYIR, uygun değildir.

O Bu yerleşimin tasarımında söz hakkına sahip miydiniz?

--- EVET, söz sahibiydim.
--- HAYIR, söz sahibi değildim.

O Size göre aşağıdaki cümlelerden hangilerine katılıyorsunuz, hangilerine katılmıyorsunuz.

1. Yaşam alanımın tasarımında söz sahibi idim.
--katılıyorum ---katılmıyorum
2. Yaşam alanımda, kendi kültürümü daha fazla deneyimleme şansım olmasını isterdim.
---katılıyorum ---katılmıyorum
3. Yaşam alanım mimari mekan kalite anlayışıma uygundur.
---katılıyorum ---katılmıyorum
4. Yaşam alanım işlevsel mimari mekan beklentimi karşılamamaktadır.
---katılıyorum ---katılmıyorum
5. Yaşam alanımın rasyonel biçimlenmesi beklentilerimi karşılamaktadır.
---katılıyorum ---katılmıyorum
6. Yaşadığım mekanlar maksimum yeterliliğe sahiptir.
---katılıyorum ---katılmıyorum
7. Yaşam alanımda tekrarlanan çözümler örneğin plan tipleri, başarı ile beklentilerimi karşılamaktadır. ---katılıyorum ---katılmıyorum
8. Komşularımla aynı tip mekanlarda yaşamak beni hiç rahatsız etmemektedir.
---katılıyorum ---katılmıyorum
9. Yaşam mekanımı seçme ve kişiselleştirme şansım olmadı.
---katılıyorum ---katılmıyorum
10. Bina cephelerinde, iç mekanlarda ve kamusal alanlarda kullanılan malzemeler yereldir.

---katılıyorum ---katılmıyorum

11. Bina cephelerinde, iç mekanlarda ve kamusal alanlarda kullanılan malzemeler kendi ülkemde kullanılan malzemelere benzememektedir.

---katılıyorum ---katılmıyorum

12. Yaşam mekanımın yüzeylerinde kullanılan malzemeler dekoratif amaçlıdır.

---katılıyorum ---katılmıyorum

13. Yaşam mekanımın komşularımın yaşam mekanları ile olan yakınlığından memnunum.

---katılıyorum ---katılmıyorum

14. Yaşam mekanımda daha fazla kamusal ve açık alanların olmasını tercih ederdim.

---katılıyorum ---katılmıyorum

15. Benim ve komşularımın yaşam mekanları arasındaki mesafenin azlığı alan kullanımında maksimum verimliliğinin göstergesidir.

---katılıyorum ---katılmıyorum

O Royal Sun Residence projesinden nasıl haberdar oldunuz?

--- Gazeteler
--- TV reklamları
--- Sosyal Medya
--- Akrabalar
--- Noyanlar Grubu
--- Diğer

O Sizce bu yerleşim benzer bir coğrafyada da yapılabilir mi?

--- EVET, yapılabilir.
--- HAYIR, yapılamaz.

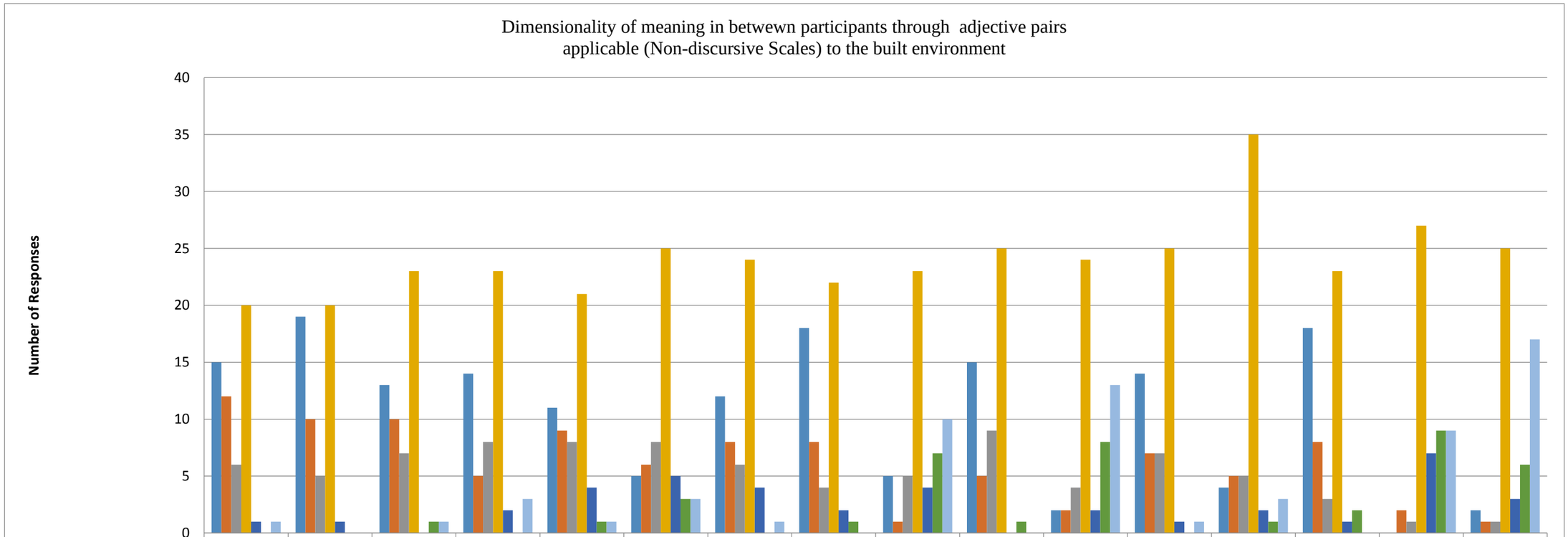
O Kendi yaşam mekanınızı (Royal Sun Residence) düşünerek bina tipolojisi, boyutlar, stiller ve kendi kalite önceliklerinize göre aşağıdakilerden size en uygun olanı işaretleyiniz.

(Yedi farklı derece vardır, lütfen tercihinize göre karşıt kavram setinden birini seçiniz)

Royal Sun Residence Yerleşimi …

Basit	------- : ------- : ------- : ------- : ------- : ------- : -------	Karmaşık
Güzel	------- : ------- : ------- : ------- : ------- : ------- : -------	Çirkin
Güçlü	------- : ------- : ------- : ------- : ------- : ------- : -------	Zayıf
Mantıklı	------- : ------- : ------- : ------- : ------- : ------- : -------	İçgüdüsel
Farklı	------- : ------- : ------- : ------- : ------- : ------- : -------	Sıradan
Belirsiz	------- : ------- : ------- : ------- : ------- : ------- : -------	Net
Heyecanlı	------- : ------- : ------- : ------- : ------- : ------- : -------	Sakin
İlginç	------- : ------- : ------- : ------- : ------- : ------- : -------	Sıkıcı
Sıkışık	------- : ------- : ------- : ------- : ------- : ------- : -------	Ferah
İyi	------- : ------- : ------- : ------- : ------- : ------- : -------	Kötü
Tesadüfi	------- : ------- : ------- : ------- : ------- : ------- : -------	Kontrollü
Açık	------- : ------- : ------- : ------- : ------- : ------- : -------	Kapalı
Yüzeysel	------- : ------- : ------- : ------- : ------- : ------- : -------	Derin
Kalıcı	------- : ------- : ------- : ------- : ------- : ------- : -------	Geçici
Kaotik	------- : ------- : ------- : ------- : ------- : ------- : -------	Düzenli
Rahatsız	------- : ------- : ------- : ------- : ------- : ------- : -------	Rahat

Appendix E: Dimensionality of meaning in between participants through adjective pairs applicable (Non-discursive Scales) to the built environment



	Simple/ Complex	Beautiful/U gly	Strong/Wea k	Rational/Int uitive	Unique/Co mmon	Ambiguous/ Clear	Exciting/Cal ming	Interesting/ Boring	Confined/Sp acious	Good/Bad	Accidental/ Controlled	Open/Close d	Superficial/ Profound	Permanent/ Temporary	Chaotic/Ord ered	Uncomforta ble/Comfort able
extremely strong	15	19	13	14	11	5	12	18	5	15	2	14	4	18	0	2
quite strong	12	10	10	5	9	6	8	8	1	5	2	7	5	8	2	1
slightly strong	6	5	7	8	8	8	6	4	5	9	4	7	5	3	1	1
neither strong nor weak	20	20	23	23	21	25	24	22	23	25	24	25	35	23	27	25
slightly weak	1	1	0	2	4	5	4	2	4	0	2	1	2	1	7	3
quite weak	0	0	1	0	1	3	0	1	7	1	8	0	1	2	9	6
extremely weak	1	0	1	3	1	3	1	0	10	0	13	1	3	0	9	17

Appendix F: Professional Participant Information Sheet

Professional Participant Information Sheet

Invitation

Dear …..

You are invited to participate in a research study that is investigating the impacts of instrumental perspective towards modern technology on architectural meaning. The study is being conducted by Kamiar Yazdani, a MSc. Student at Department of Architecture, Faculty of Architecture, at Eastern Mediterranean University, Famagusta, and Northern Cyprus.

Before you decide whether or not you wish to participate in this study, t is important for you to understand why the research is being done and what it will involve. Please take the time to read the following information carefully.

If you agree to participate in this study, you will be asked to sign a Consent Form attached to this sheet. You will be free to withdraw from the research at any time; however your name will be changed before being used to protect your identity. The study seeks to explore the impacts of instrumental perspective of modern technology on the set of structural conditions emerged in architecture and built environment through conducting an empirical phenomenological method of research including observational field notes done by the researcher, questionnaires filled by inhabitants of built environment and the expert person who were involved in the process of design. As a case for practical implications of the field, the Royal Sun Residence Complex in central district of Yeni Iskele region has been selected to be investigated.

Why have I been invited to participate in this research project?
You have been invited to participate in this study because of your knowledge of the Royal Sun Residence Complex in central district of Yeni Iskele region and its process of design and construction.
What does my role in this study involve?
This research involves your participation either in a semi-structured interview to explore your insights and experiences into aspects of the project.
What happens if I do not want to take part in the study?
Participation in this study is voluntary. It is completely up to you whether or not you decide to participate. If at any point in the interview you become uncomfortable we will stop the interview immediately. If you have any concerns with the research, please contact my director of studies, Prof. Dr. Yonca Hürol and Asst. Prof. Dr. Ceren Boğaç, Department of Architecture, Faculty of Architecture, Eastern Mediterranean University.
Why do interview need to be recorded?
Interview is recorded so that your views are accurately documented. Information collected will only be for the purpose of this research project.
What should I do if I want to discuss this study further before committing to the interview?
If you wish to discuss this study further before committing to an interview, please contact the researcher.
Kamiar Yazdani,
Research/Teaching assistant,
Department of Architecture, Faculty of Architecture,
Eastern Mediterranean University
Kamiar.Yazdani@cc.emu.edu.tr Mobile: 05338826037
What will happen to the final report of the research?
The final report will be submitted as a MSc dissertation and will be published at the library of Eastern Mediterranean University and may form part of academic journal article and/or conference paper.

Thank you for taking the time to consider this study, this information sheet is for you to keep.

Appendix G: Consent Form Signed by the Expert Person

CONSENT FORM

Problems of Technology and Its Consequent Meaning in Architecture: Practical Implications on Derivative List of Mediations- a research project conducted by Kamiar Yazdani, MSc. Student at Department of Architecture, Faculty of Architecture, Eastern Mediterranean University.

Research Purpose

The purpose of the study is to explore the impacts of instrumental perspective of modern technology on the set of structural conditions emerged in architecture and built environment through conducting an empirical phenomenological method of research including observational field notes done by the researcher, questionnaires filled by inhabitants of built environment and the expert person or persons who were involved in the process of design.

I understand the information will be used:

1. To inform a MSc. Thesis at the Department of Architecture, Faculty of Architecture, Eastern Mediterranean University.
2. For possible publication in journals, textbooks or similar publications. In which case I understand that:
    - The material may also be published in journals worldwide.
    - The material may also be placed on a worldwide web site.
    - The material may also be used by book publishers.
    - The material will not be used for advertising or packaging.

I understand that:

1. Any quote or views attributed to me will be sent for approval in advance of use in the final report and that consent can be withdrawn at this time.
2. Anonymity will be discussed at the outset of the interview. If I request that views expressed by me during the interview should appear anonymously, an appropriate form of words will be agreed at or following the interview.

Recording of interview:

I consent to being recorded during the interview, as part of the research study. I understand that this information will be used only for the purpose of this study.

Name of person taking part in the interview

……

Singed…….Date……

Appendix H: Interview with the Expert Person involved with the Complex

Place: The interview has been executed in the architect's office in the Royal Sun Residence complex, Yeni Iskele district, North Cyprus;

Duration: 45minutes;

Date: 9th August, 2016;

Note: According to the agreement in between the researcher and the expert person who were informed about the process of design and construction of the Royal Sun Residence complex, the identity of the interviewee has to be kept hidden in all the process of writing and implication of this dissertation.

Interviewer: *Let me to start the interview with questions on the ongoing regional urban development in the Yeni Iskele region. As a person who has been engaged and witnessed the process of forming this new built environment, can I ask you as an architect, about your experience points of view about new urban development in Yeni Iskele region? And how do you evaluate it?*

Interviewee: To say**,** actually, there is nothing new, because there is no infrastructure in the region of Yeni Iskele. Form the beginning of the process of development in this region; the infrastructure projects have been only constructed by Turkish companies including water systems, electricity, however they are not enough for such a vast development in this region. Afterwards, by getting some new strategies about employment by the government, they have identified some rules and regulations which works, but the governmental fees are so high, so it is hard to find the professionals. I meant experts and experienced workers. Therefore, it is very difficult to build such big projects in the region at this moment; including construction and even in urban development by lack of sufficient human sources in the discipline. Do you want my opinions about the regional conditions now? ...it is very unique area, actually in Famagusta region we cannot see such a place which is adequate to be constructed a built environment near to the sea. In fact, there are no such beaches like Long Beach in

area. The beaches are closed to the residential areas, so it is an extra opportunity to construct some projects like this at this part Iskele region. Also, the other part of the Iskele region, as you see on the map, it is far from the sea. You may reach the sea by walking, but here, it is very quick. Then, the foreigners who are purchasing properties, they all consider the distance of properties from the seaside. It can be assumed as the first reason, and also, our native customers are thinking like this. They seek for beaches, sands and some facilities in the project including restaurants, pools, and fitness centers. Therefore, we have collected all together and we give many choices, I meant choices of building typologies. So, if you want 3 bedrooms for a big family we offer it! If prefer studio flat we can offer it to you! Therefore, it is very complex project and I think it is in progress very well at this moment.

Interviewer: *As I can see, the private sectors including the construction companies are taking actively responsibilities in this regional development. I just want to look at the process of this development from other aspects as well, for example, political and governmental point of views. Do they give any services to this process, such a strategic planning, and master plan and so on?*

Interviewee: Still, there is no master plan. However the Iskele municipality works hard, but there is no any master plan yet. The other politicians, parliamentarians let's say, they actually do not deal carefully with this region, except during the election period as usual.

Interviewer: *Can I ask you to give me brief hints about the process of the design that you have passed for this complex? How are you looking at this experience as an architect?*

Interviewee: During the group meetings for brainstorming, as architects, we have decided to put all housing types in this project, however, it is sometimes attractive, and sometimes not. As you can see in the site plan, it cannot be a complex, not be assumed as a development something like. By considering such projects, they must have more green areas, more trees and landscaping…but there is no water! So as I can describe the project, it can be just considered as a commercial project in which we just were able to talk about incomes. In terms of architectural design qualities, you may not find appropriate condition in this project. Maybe the buildings are a bit attractive.

Interviewer: *So, according to your explanation, the site arrangement and initial idea was based on the economical preferences and there is no change in the layout from the initial levels of design process. And there is no ideal image which has not been achieved. Was it like this?*

Interviewee: Exactly like this as you said. Actually the initial idea was building and selling! In such manner, you do not think about design process and its additional parameters. You just think about which model, which facilities and how much money and how many costumers and how much problems can be considered in the project. Maybe, there are aesthetical needs, but it is in second priority and the environment as the third parameter. But environmental thinkers involved to the projects have taken role as builders not as architects. They just reduce the meaning the built environment to the landscape and many of developers and companies tend to think like this. This is controversial thought about the environment.

Interviewer: *You discussed about physical dimensions about this built environment. How about the social dimensions? Is there any consideration in process of design in this sense?*

Interviewee: Mainly, at the beginning of design process, our sales department gives data to the designers and they can configure the context. Therefore, they can start to think about the target, people or nationalities, because the nationality is important at the moment. Consequently, you can see a lot of nations here in the complex, Iranians, Arabs, Russians, Swedish, Finish and Ukrainians who are permanently living here. It means they have left their countries and they have settled here in this complex. Also, some of them are just using their units temporarily for three months and also they just look at this properties as investment for future. But as I said, the main target is building and selling. In this manner, at the beginning, the Russian new residents were mainly the target.

Interviewer: *I just want to ask you in more detailed about physical aspects of the built environment. However, we discussed together about the general layout, but how you are looking at the formal appearance of the buildings and their arrangement, set of forms?*

Interviewee: Formal appearance?! Nothing! Nothing! …there is no identification first of all, and then, it is something like rubbish. As an architect, I cannot describe that it is a built environment according to architectural criteria, because there are just roads, building and anything else. So, this is not a built environment in our point of views and with regard to architectural definition of the space.

Interviewer: *So, may you describe these structural conditions through identifying disconnection in between existing settings in this context and new conditions or not?*

Interviewee: Honestly to say, this can be also assumed as a built environment! Previously, before constructing this project, it might be another space. So, this can be assumed as built environment as I said, but, How can I say it is suitable or not?! How can I say this built environment is suitable for this context or not?!

Interviewer: *By considering the factor of time, you may evaluate it! As you have experience it as a real project…*

Interviewee: Actually, there is nothing about future! I mean, there was no any master plan or rules established by government or chamber of architects which this project was designed accordingly. So, to be honest, by assuming that if we were not going to construct such a project, construction of the land was happening with individuals. Which one is better? Now, I think like this. I think that this a unique project covered a large space which provides an opportunity to rescue the remained space from the others. So, the situation is like this at the moment.

Interviewer: *How about the spatial qualities provided in this built environment? I mean exterior and interior spaces provided for this set of combination of housing typologies?*

Interviewee: I believe that the most of architects do not their jobs good and I do not blame them for their aesthetical points of view, environmental considerations. In fact, there are numerous architects who are working only for their signs and money. So, this is ethical phase of their professional life and architecture.

Interviewer: *how about the conditions emerged by new density provided by the project? And accordingly, the proximity of the spaces…actually, in terms of density, there are differences in between this built environment and surrounding settings in this region…*

Interviewee: I think it is not dense at the moment, but it seems to be crowded in the future. Also, there are similar projects in this region in progress or began to be built, so we are influenced by this new movement in order to not scope it as well as we try to put it on way. Therefore, if you lose this opportunity, it will be a mass.

Interviewer: *how about the issues emerged by provided level of proximity…*

Interviewee: It is very hard to say about this condition…as you can see; there is no consideration about these issues.

Interviewer: *let me to shift the discussion to other dimensions…what do think about materials used and the types of structures applied…*

Interviewee: Materials used are all classical…

Interviewer: *you mean classical in terms of the contextual characteristic of applied materials or on the other hand, the common utilization of materials in universal dimensions?*

Interviewee: let to say universal! …including materials, construction types and structure…in general, these building types are universally classic… as you know, the reinforced concrete structures has many types, so we have used classic way to build these reinforced concrete structure, and then, we continue to construct by using classic construction methods and we have used bricks and cement. In this process, there were no any new material applied, and no environmental-contextual materials, in this regard; there was no proper insulations, no proper construction methods. However, in this process, we used and applied some new different materials, but I am not sure that they are enough or not.

Interviewer: *actually, when I entered to the complex for the first time, I experienced two dominant colors of materials applied…as a Cypriot architect; do you know any cultural reference or any meaningful intentions for using such colors to take role in shaping this built environment? Or something beyond this selection which refers to a kind of contextual understanding of material…*

Interviewee: No…No…No…actually it is nothing to me, they are just colors…however it shouldn't be like this, but they are colors!

Interviewer: *Let me to open the discussion on the inhabitants of Royal Sun Residence in more detail…What was your perspective or image of future inhabitants' profile and their lifestyle in the complex since you were designing it? By considering the multicultural atmosphere prevailed on the complex, how much of your ideas about the social dynamism in the complex has become true? As you said, there are many nationalities have been settled in this complex…how their lifestyle has been matched together?*

Interviewee: As far as I have witnessed, they do not company with each other! I mean different nations…some of the Russians and Ukrainians sometimes come together, but all inhabitants somehow optimized compromised their relationships and their friendships. In future, I can say, there will be an atmosphere meaning as sea holiday life in this project and in this area. As environment says, the sea is the first reason of this holiday place.

Interviewer: *As I can see the first phase of the Royal Sun Residence complex is almost finished…*

Interviewee: Yes it is, and the second also will be finished very soon.

Interviewer: *How much of the social dynamism as an ideal considered in the process has been completed till now?*

Interviewee: Actually, there is no life here at this moment. The inhabitants are mostly using their units for holidays. We have planned to see the conditions in this winter. So it is a kind of experimental

thing, we need to see the winter's condition to understand how they act and response to this built environment.

Interviewer: *Another question about the social dimensions! How much are they engaged into the social mechanism of the region? In terms of economic, process of socio-cultural productions…or in design process, was there any concern about this engagement?*

Interviewee: No, I do not have any idea about this…to go further by considering the question that you asked; I just can say that there is no school for them; however there was a school for Russian and Ukrainians at the beginning. I think they had 50 students or something like that, but they closed because of some governmental problems they have faced. So, they need schools, social places to gather and meet each other for each nation in order to create a social atmosphere for the ones to settle here in the complex.

Interviewer: *Actually another subject that I want to know your point of view about is related to correspondences of this built environment to natural setting…according to the potentials existing in this specific context, including the Long Beach and the vast beautiful untouched grassland behind the complex…How did they affect the process of design? And, how have you considered these surrounding natural potentials exist in your design process? What has been changed after finishing the design about the relationship of the complex with natural environment and are you happy with? In general what was or is your experience about this way of looking at this development?*

Interviewee: Can we pass this question?!

Interviewer: *Actually, this is the last question…*

Interviewee: Last one?!! Well, to be honest, I am sorry that there was no intention for dealing with such considerations. If it was like this or something else, this is only a kind of built environment. In the design process, needs are at the priority and these needs come from the quest of customers. Indeed, after this construction, the customers are the ones who bring and identify for us their needs. This

project will be developed, this land also will be developed, the customers will share their needs and maybe the municipality will do something about these needs. But who needs, and what is needed, is important. I mean which customer needs what! And why they have been bought units from this project…Yes, you are right! We know it is much closed to the sea and untouched natural environment behind, but who cares! They need holidays! We did not think about the future condition of existing natural settings and they do not!

Interviewer: *By considering the huge land that this complex is going to occupy, and with regard to the physical and social characteristics of this built environment it can be concluded to a big gated community, which is physically surrounded and isolated, and on the other hand, the community dwelled in the Royal Sun Residence is somehow segregated from surrounding communities...I am curious to know that by extending the number of this structural conditions near to each other like islands, in the future, how physically and socially will they correspond or react to each other? Or in another way of looking, how will they create a set of structural conditions which represent itself as a part of process of urbanization and urban growth in Yeni Iskele region? How do they integrate and involve to this process? And, how this process will be controlled?!*

Interviewee: It cannot be controlled! Because individual movements towards all aspects of development, take an important role in Cyprus, especially in our side. It means that if you have land, you are able to build your own property and you can shape your own surrounding accordingly, physically and socially. When individual way thinking is prevailed in the process of development, they adjust their own preferences to the space. By the way, do you know such documents?

Interviewer: *No, I do not (Customer Choice List)…*

Interviewee: Yes, customer can choose any materials, any tiles, any colors…

Interviewer: *what about exterior spaces, do they have chance to change or personalize it?*

Interviewee: No, they are not allowed. Outdoor space and facades must be kept unique. So, they are not allowed to change anything, which is affecting outer appearance of the complex, therefore, only interior spaces can be changed according to their preferences. They can only adjust their walls! So many things can be done according to these list…think about amount of the thing that we have to do according to these lists…this complex is nearly 1000 units after the completion, and first phase is included approximately 306 units. So we face many variables of choices. Even in a room, somebody can ask for different color for different walls. Therefore, we do not have enough time to deal with architecture that much…

Interviewer: *very quick questions…what is the role of municipality in the process of forming this built environment according to their regulations? Do they monitor the process of design and construction?*

Interviewee: No, they should monitor the process, but such municipalities; unfortunately, they do not have experts for such a process.

Interviewer: *What about the limitations for stories and height limitations? As far as I can see, there are high-rises, middle multiple stories buildings of 4-5 stories and two stories…so if you emphasize on the business phase of this process, can you please share with us what kind of considerations guided you in the process of design?*

Interviewee: As you said, there are high-rises, middles and two stories. So, this is related to the rules and construction permissions, that is why we have chosen varieties of densities for the complex. It was dictated by the rule given by the chamber of architects. Accordingly, the height can be changed in our case, in this site. So by using this opportunity we offer different types of housing units including studios, multiple-story houses and apartments which are related to customers' choices, but rules say only to us, you are allowed to build the ratio of 2.2 of this land and you provide green spaces and accessibilities as well.

Interviewer: *As the last question…how is the collaboration between you as private sector and municipality? How do you assist the municipality and how do they support you? For instance, in the case of infrastructure facilities by considering the increasing number of inhabitants in the complex…*

Interviewee: All the time, the developers force the municipalities to improve the conditions. We pushed them every time! For example, the Long Beach project is one of the old municipality's projects, but still continuing! But it is still unfinished! They spent their sources for unnecessary facilities such as picnic place since the region has shortages for its water and sewage systems. They think about their own priorities and preferences according to their political reasons, therefore, the water and sewage systems can be postponed for a while. However, we paid big amount of taxes in two types to municipality but there is no back. Even, for the city services, we face many difficulties because they do not have enough human sources and machinery systems for such services!

Interviewer: *Thanks a lot…*