THE ATROPHY OF PLACE

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ABSTRACT

THE ATROPHY OF PLACE

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The built environment is designed to make places, and design behavior is a prerequisite for lack of place. This thesis identifies lack of place as a problem of urban place design within the human-environment relationship.

Lack of place is a precondition of the design act. Despite the fact that no every design effort results in the creation of places, it originates from a certain deprivation in an environmental setting. Accordingly, the thesis claims that the lack of place is more than a mere pessimistic, realist ethos, in that it implies not only an absence of care for places, but also an intrinsic will in need of a place. Lack of Place can be linked to the concepts of *Non-Place*, *Loss of Place* and *Placelessness*. Contemporary authors bemoan the loss of urban place, however the concepts are not sophisticated enough to

describe the phenomenon, and this thesis argues that the concepts underestimate the phenomenon.

The thesis will present a new *phenomen-o-logical* framework for the place identity and lack of place, as despite all the observable manifestations of lack of place, the city has already been identified as place by its inhabitants. In this regard, the phenomenon of lack requires re-identification. Ultimately, the phenomenographic research to identify the deficient parts of the theory arrives at the conclusion that an Atrophy of Place has taken place, in which the term "Atrophy" refers to a new consciousness for understanding the human-environment relationship.

Keywords: Urban Place, Phenomenography, Placelessness, Non-place, Atrophy of Place

ÖZ

MEKANSAL KÖRELİM

Kesim, Berk

Doktora, Şehir ve Bölge Planlama Bölümü

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Yapılı çevre mekan (yer) oluşturmak için tasarlanır ve tasarım davranışının önkoşulu yer yoksunluğudur. Bu tez yer yoksunluğunu bir kentsel tasarım problemi olarak insan-çevre ilişkileri içerisinde tanımlamaktadır.

Yer yoksunluğu tasarım eyleminin ön şartıdır. Her tasarım çabası bir mekan oluşumu ile sonuçlanmayacağı gerçeğine rağmen, belirli çevresel özelliklerin yoksunluğundan kaynaklanır. Bu sebeple bu tez, yer yoksunluğunun kötümser, gerçekçi bir dünya görüşünden çok daha fazlası olduğunu iddia etmektedir çünkü; yer yoksunluğu ile sadece mekana verilen önemin yok olması değil, aynı zamanda özünde mekan gereksinimi de kastedilmektedir. Yer yoksunluğu Non-Place (Mekansız/yersiz), Loss of Place (Mekanın/Yerin yok olması) and, Placelessness (Mekansızlık) kavramlarıyla

ilişkilendirilmiştir. Güncel yazarlar yer yoksunluğu kavramları ile kentsel mekanın yok olmasından yakınmaktadırlar fakat, bu kavramlar olguyu açıklamak için yeteri derecede kapsamlı değillerdir ve, bu teze göre mevcut kavramlar yoksunluk olgusunu küçümsemektedirler.

Bu tez yerin kimliği ve yer yoksunluğu üzerine yeni bir olgusal, mantıksal çerçeve sunmaktır zira; yer yoksunluğunun emareleri kentte gözlenmesi gerçeğine rağmen, kent kentliler tarafından muhakkak ki bir mekan olarak tanımlanır. Bu bağlamda, yoksunluk olgusu yeniden tanımlanmalıdır. Sonuçta, (mekansal) körelim kavramı yoksunluk kuramlarındaki eksiklikleri çözmek üzere olgu-bilimsel araştırmalar sonucunda yoksunluk kavramları yerine önerilmektedir ve (mekansal) körelim beraberinde insan ve çevre ilişkiklerini anlamaya dair yeni bir bilişi de getirmektedir.

Anahtar Kelimeler: Kentsel Mekan, Fenomenografik, Mekansızlık, Mekansız, Mekansal Körelim

To the wind

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INTRODUCTION

1.1. The Context & Significance of the Research:

This thesis considers lack of place to be a problem of urban place design within the human-environment relationship that results from a dissatisfaction with the environment. In other words, the urban environment has never fully met the needs of humanity throughout its history. This may be a major problem in urban planning and design.

The context of the study demands the involvement of the phenomenon of lack of place. Based on a general dissatisfication with the environment that we lived, the phenomenon of lack of place has been the subject of many urban researches to date. Why can we not reach the satisfied experience of urban place for many years? Or are we? Why are we unable to create the places we desire at all? Is it possible to design an urban environment that we will be satisfied with? Before answering these questions, we must first answer the questions, “What kind of phenomenon is lack of place? What is lack of place? What is place? What is the relationship between the two constrasting phenomena?”

In fact, this is a psychologic phenomenon that is a result of the experiential world in which we live, and can be traced back to the environmental manifestations witnessed throughout settlement history that result from building and re-building. This problem is identified as “lack of place”, although it may not actually be a problem at all, but rather a continuum of place-making and as natural result of continuous place-making efforts.

Many distinguished authors have sought to identify and investigate lack of place as a result of the general dissatisfaction with the urban environment. Indeed, lack of place is a generic definition introduced by the thesis that involves the concepts of *Non-Place* (Webber et al., 1964; Augé, 1995), *Loss of Place* (Norberg-Schulz, 1979) and *Placelessness* (Relph, 1976). In addition to these, several other authors have voiced their dissatisfactions with the lack of place, among which are Ruskin (1846), Giedion (1961), Venturi (1966), Krier (1979), Lozano (1990), Sennett (1977, 1992), Arefi (1999) and Castello (2010). This thesis takes a fresh look at the lack of place in an urban environment, but before identifying the exact nature of lack of place is, it is first necessary to make a clear definition of place.

The context of place should be discussed in two main aspects. First, place is a psychological aspect that is bounded to the individual/social signification of the environment; and second, place is an existential phenomenon, whether built by humans or experienced in nature. The built environment is designed for the creation of places, but the environment must be experienced by people to constitute the sense of place. In this regard, this study covers two main fields: environmental design and environmental psychology.

The thesis will also detail the relationship between environment, human, place and design. There are two types of environment: the built environment and the natural environment, with the former in the city being built within the latter as an artificial consequence of human design. Evidently, cities have never wholly met our needs, being subject to constant redesign throughout settlement history. From this it can be concluded that it is impossible for the urban environment to reach “perfection” in an environmental setting, and as a consequence, it is subject to perpetual design and redesign. In this regard, urbanization is a process in progress; in other words, it is a continuous attempt to design the environment to reach the place. Design involves the transposition of symbols of an individual or a group of people through their construction within the environment, for which an intricate relationship must exist between environment, design, place and lack of place. In summary, this thesis

investigates the relationship between human and environment from the perspective of place and lack of place.

Accordingly, the thesis avoids such contemporary situational definitions related to lack of place as Non-Place, Loss of Place or Placelessness. Rather than trying to make a situational determination, this thesis seeks to develop a complementary approach to the phenomena of place and lack of place that have existed throughout settlement history.

1.2. The Purpose & Rational of the Study:

The purpose of the thesis is to question the phenomenon of lack of place as a problem of urban place design, after which, an investigation will be made into the concepts of lack of place. The main questions posed by this study are: “What is lack of place? Could it be eliminated through the design of urban space?” Existing concepts related to lack of place fail to put forward a credible framework for understanding of the phenomenon, given the lack of contextual depth and conceptual sophistication. In this regard, the main objective of the research is to re-conceptualize lack of place, and to discuss whether or not it may be eliminated through design?

This is a qualitative research based on phenomenology, for which it develops its own philosophical approach of place based on the relationship between the human race and their environment. It is hoped that the research will address the deficiencies in the existing concepts related to lack of place. The thesis rational is developed in two main parts:

The first part of the study is a phenomenological research into the lack of place on the ontological basis of place, and the thesis develops its own epistemological framework for the following phases. In this sense, the phenomenon of place will be investigated as a consequence of the human-environment relationship, analyzing not only lack of place, but also the phenomenon of place. The identity of place will also be discussed,

paying heed to contemporary definitions in the literature, and the components of the place identity will be examined. A summative content analyses including literature and history on the evolution of the urban space/place will help us improve the phenomenological research. In the first part of the study, the following sub-questions will be raised:

- What is space? What is place? What are the components of place?
- What is the relationship between human, environment, place and design?
- What are the contemporary concepts of lack of place?
- Is there any deficiencies in the concepts of lack of place? If so, what are they?
- How could the thesis improve the concepts of lack of place?

The second part of the thesis will develop and test a new phenomenological framework for describing lack of place. Even if all manifestations of lack of place are observed, an urban place may preserve its place attributes. Hence, the thesis will provide a new schema for addressing the problem of place. According to the new schema of the thesis the identity of place and components of place will also be re-defined. Regarding the issue of place identity, the thesis creates its own framework for lack of place, and this new framework is the hypothesis of the thesis, making the suggestion that lack of place may better identified as the *Atrophy of Place*.

Atrophy of Place refers to a gradual loss of place experience, taking into account each and every component of place identity. In brief, Atrophy of Place refers to the loss of (spatial) experience, although there is more to it than that. Place refers to a meaningful experience of a (space-time) context that includes not only physical attributes, but also the **context,** including the time dimension, as well as **meaning**. In this regard, the identity of place is composed of space-time (context), meaning and experience, and every component is a prerequisite of the one that precedes it. The **experience** component in place identity involves not only all other components, but also embodies

the experiential psychology into the theory of place. A place provides not only an individual experience, but also a collective experience that has been built throughout history, and Atrophy of Place refers to the gradual loss of the place experience as a result of the building of new experiences.[1] In short, Atrophy of Place can be described as the inverse of a place-making act.

The thesis makes three main contributions to scientific literature. First, it puts forward a new phenomenological framework for place identity, for which the components of place are discussed and revised by the thesis, one by one. Second, is the term *Atrophy of Place*. The term Atrophy is not denying the contemporary concepts[2] of the lack of place. It proposes a grand framework that modifies the deficiencies in the theory of lack of place. The thesis argues that while an urban place may incorporate all the manifestations of lack of place, it may have already been identified as a place. These contributions and arguments are also the assumptions of the thesis, and will be tested through qualitative research methods. Indeed, what the thesis asks is, "Could the sense of lack be defined as a lack of place, or is this rather Atrophy of Place? If all the assumptions are validated, Atrophy of Place will be used as a grand theory, embracing all other definitions of lack of place, including the concepts of *Non-Place* (Webber et al., 1964; Augé, 1995), *Loss of Place* (Norberg-Schulz, 1979) and, *Placelessness* (Relph, 1976). The final contribution made by the thesis is the research method. The thesis adapts the *Phenomenography* approach of educational sciences to urban studies as a research approach and method, and the search for a new phenomenological framework (i.e. *phenomen-o-logic*) will be structured upon the adapted method of *Phenomenography*.

In conclusion, the thesis makes a study of lack of place and puts forward a grand framework for the dissatisfaction from the environment. The first phase of the thesis is an analysis of the concepts of place and lack of place. It is hoped that the research

[1] The thesis does not view lack/atrophy of place in either a positive or negative way, in that is a natural phenomenon in the human-environment relationship.
[2] The contemporary concepts regarding lack of place are Non-Place (Webber et al., 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976)

will improve upon not only the theories of place and lack of place, but also design thinking in urban sciences. The thesis concludes by answering the question: "Could the lack (atrophy) of place be eliminated by design or not?" in the last phase of the research.

1.3. The Method of the Research:

The thesis proposes a new phenomenological framework for the concepts of place and lack of place that is based on a series of assumptions, while proposing a new phenomenological framework. The research method is designed to develop and validate the proposed phenomenological framework, and the thesis extends the study through a qualitative research approach called *phenomenography*.

The method adopted in the thesis is designed as an inventive adaptation of phenomenography, having been adapted from educational sciences for urban studies, involving the research of a new *phenomen-o-logical* explanation through the building of epistemological conceptions. It also researches a new *onto-logic* that exists behind the phenomenon. Phenomenography, as a research method and also an approach, is used to investigate the (collective) lived-in experiences within systematic forms of categorized thoughts. In this context, it is deemed the most appropriate means of analysis of the place experience.

The research comprises three main parts, as the fundamental procedures of a phenomenographic research that are developed by the thesis. These are a comparative literature analysis, a re-conceptualization and re-interpretation, and validation. First, rather than making a simple literature review, the thesis makes an exploration of literature through a comparison of previously developed concepts. The aim in the first stage is to identify any deficiencies or discrepancies in literature, leading to a systematic form of information that will be used to establish the thesis' hypothesis. Second, the research re-interprets and re-conceptualizes the systematic form of information into a consistent phenomenological framework, taking into account the

researches and concepts developed in previous studies. The research is concentrated to build a new understanding upon them by taking the critiques into consideration. The hypothesis of the thesis is established in this part. Third, the hypothesis is tested using a set of qualitative research techniques, with the aim being to examine the consistency and validity of the thesis with as much reliably as possible. Moreover, the practical competence of the developed concepts is also tested in the third phase of the study. In this way, the thesis creates a more sophisticated phenomenological framework regarding lack of place through a reframing of the concepts. Additionally, the third part of the research makes an analysis of the collected lived-in experiences and compares them with the established theoretical framework. If deemed necessary, the thesis may be re-constructed or modified depending on the results of the research. The entire research is designed as an active and creative procedure, providing a means of thinking about the logic behind the phenomenon of place and lack of place, and the relationship between them.

The study benefits from information from various data sources, and the adopted method allows them to be compared them to increase the reliability of the research. The research collects and processes three major forms of data related to the phenomenography, being **documental data**, **observational data** and **experiential data**. The thesis use the documental data for investigating the relationship between human and environment. Observational data is used for identifying the environmental manifestations of the place and lack of place. The experiential data is used to collect information about people's lived-in (collective) experiences. Each data set has its own technique to analyze the data set that may include (Logical) qualitative comparative literature analyses (QCA), descriptive history analyses (DHA), field observations and questionnaires.[3] These data sets are not only used for testing the reliability of the new

[3] Each technique may benefit from a different data set. For instance, QCAs and DHAs are based on documental data; field observations are based on observational data; and questionnaires are based on experiential data. However, the research techniques may benefit from other data sets, such as field observations based not only on observational data, but also reflecting the experiential information. DHA also benefits from observational records from history and from visual records, and the thesis is established based upon the reliability of those data sets.

phenomenological framework. Furthermore, the main framework of the study may also have the ability to be developed and enhanced at every stage of the research.

Ultimately, the thesis proposes a new method after designing a set of research techniques for the processing of various forms of data in urban studies. The research method *Phenomenography* is adapted and re-designed for urban studies, and this approach is one of the most important contributions made by the thesis to the existing body of literature.

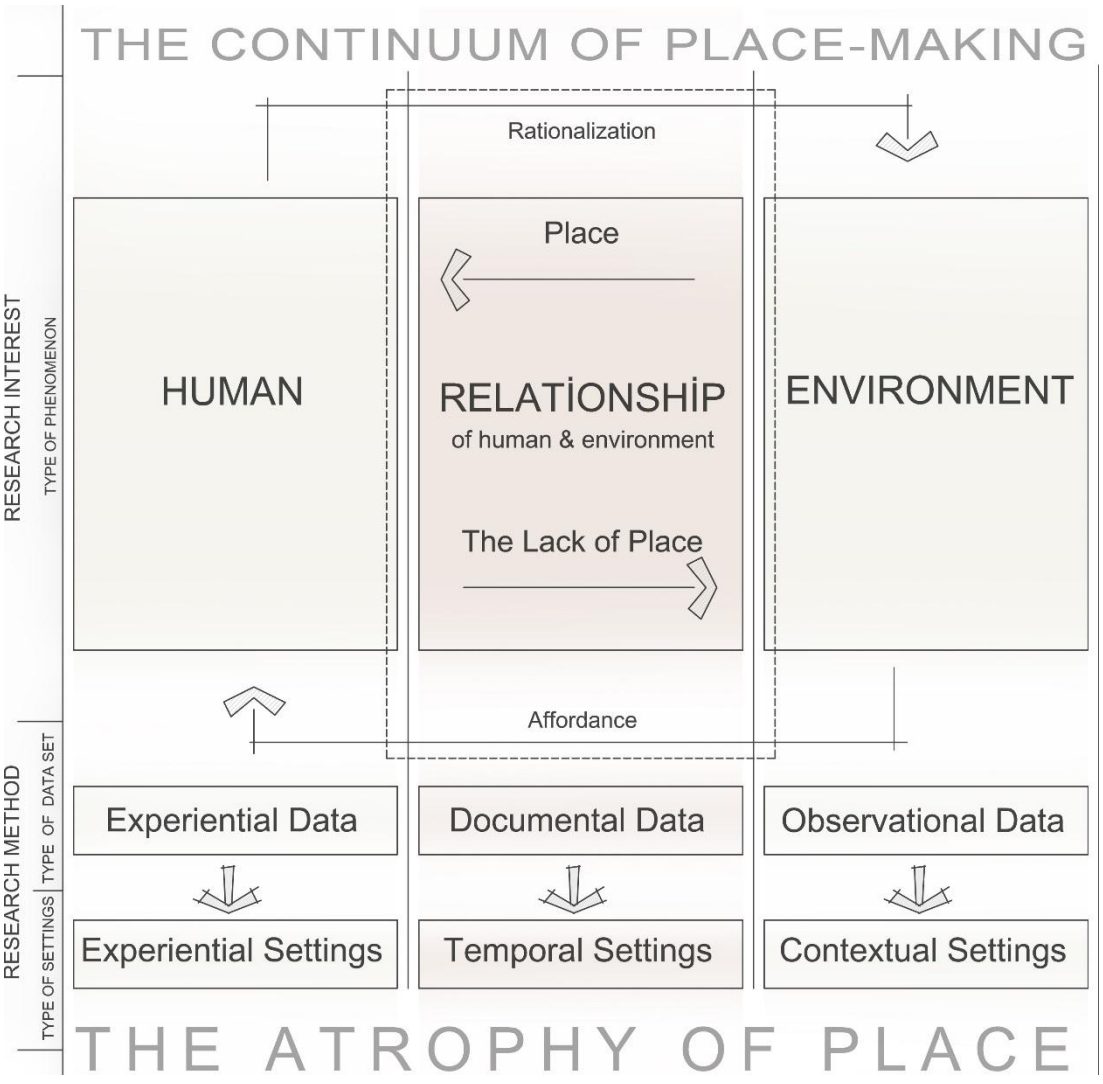

Figure 1.1: Fields of Interest & the Type of Data Settings Used in Research
Source: Personal Drawing

1.4. The Structure of the Thesis:

This part presents a brief chapter by chapter summary of the research, which comprises seven chapters, including an introduction, methodology and conclusion. The study is structured upon several supporting chapters, each of which is a sub-research with its own literature review and method, as expressed in the related parts of the thesis. Each heading contributes to the study from a different field of research, and this broad range of supporting sub-researches increases the reliability of the overall study. The second and third chapters of the thesis contain qualitative comparative literature analyses (QCA), in which the concepts related to theory of place (second chapter) and lack of place (third chapter) are be discussed, compared and contrasted. The fourth chapter is the *phenomenography* section. The research methodology and approach is adapted and explained in the fourth chapter, while the fifth chapter is based on a documental data analysis for expressing the progressive process of lack of place by DHA. The sixth chapter elaborates upon the concept of Atrophy of Place by making the experiential and observational data analyses.

The second chapter of the study examines the human-environment relationship in order to comprehend the phenomenon of place, which will be discussed in terms of its components. The significance of place and sense of place will be researched in literature to identify a logical schema for the composition of the analyses in later stages. Finally, a comparative literature review will be made on the subject of identity of place. It is the intention in this chapter to investigate the relationship between human, environment, place and design, culminating at the end of this chapter in lack of place being defined as the loss of any component of place identity.

The third chapter of the research examines lack of place in detail, with contemporary concepts related to lack of place being reviewed in literature. The manifestation of lack of place will be classified to establish an analysis for further stages, after which, critiques of lack of place will be given to elaborate the study. It is the intention that this thesis will contribute also to the critiques of lack of place. The essence of lack will

be investigated to establish a basis for the atrophy of place in the final stage of the chapter.

The fourth chapter presents the methodology of the study, and the hypothesis of the thesis is also established here, taking into account previous critical researches. This chapter not only describes the methodology of the research, but also proposes a new phenomenological framework for understanding the precise nature of place and lack of place. The concepts of lack of place are reinterpreted using the proposed framework, and hereby, lack of place is elaborated through the introduction of the term *Atrophy of Place*. The new phenomenological framework and the term *Atrophy* are the main contributions of this research. The validity of the thesis will be tested using the proposed methodology in the following chapters.

The fifth chapter of the study presents a descriptive research of urban history, including an analysis of documental data. Also within this chapter, the progress of the urban space/place in history is investigated. Urban space is designed for the creation of places, and it is argued that lack of place is a result of the ongoing design efforts of the individual, as part of an intrinsic will to re/place himself in society and the environment. The experience of place has evolved as a result of human interventions into the environment throughout history, and it is assumed that lack of place is also an evolving process[4]. We can expect to uncover concrete evidence of lack of place throughout history and how it evolved in this part of the study. Moreover, this chapter will also provide an understanding of how lack of place is experienced in the built environment. Based on the results of the descriptive urban history analysis, the thesis claims that the history of human-environment relationship is a continuum of place-making, and place and lack of place are two edges of this continuum. Design act is also the main motive behind the continuum of place-making. Lack of place is a natural

[4] The contemporary author defines the concepts of lack of place (Non-Place (Webber et al., 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976)) as a situational or a consequences upon the environmental manifestations but, the thesis claims that the lack of place is a phenomenon instead of a situation.

result of the continuum of place-making, meaning that lack of place refers not only to deprivation in an environmental setting, but also an intrinsic will in need of place. In this regard, the existing concepts related to lack of place fail to explain the phenomenon of lack, and so it is better to redefine and re-conceptualize the phenomenon.

The sixth chapter of the research presents the grand framework for the Atrophy of Place by analyzing the observational and experiential data. The thesis proposes the term *atrophy* in place of the static identification of "*lack*". This chapter elucidates atrophy of place by adapting the law of entropy from physics for use in environmental sciences. Atrophy of place is a result of entropy in the human-environment relationship. The thesis suggests the term *atrophy of place* as a redefinition of lack of place upon the human-environment relationship. In this regard, just as the continuum of place-making is an entropic process, the process of atrophy of place is entropic in nature. This means that whenever place-making increases,[5] the entropy of the environment is high; and whenever the entropy of the environment is high, the atrophy of place is increased. Furthermore, whenever the entropy of the environment is low, the atrophy of place is at an acceptable level. This raises the question, "Could atrophy of place be eliminated or not through design?" If, the answer is yes, then how will it be? If it is not possible to eliminate atrophy of place, then how can it be decreased? A discussion of this issue will be made from the perspective of urban design and planning.

In fact, the effects of atrophy are obvious in the urban environment, and so the research will be elaborated to observe contextual settings in the urban realm, with the objective of identifying ignored and wasted areas in the urban environment. The categorical identification of manifestations of atrophy will stand as a pragmatic result of the study.[6] The research will then be expanded to investigate the lived-in experiences of

[5] That is, the speed of the continuum, or in other words, the speed of the building and demolition process.
[6] The thesis would like to propose a new consciousness for design thinking rather than achieving a pragmatic result of atrophy. The manifestations of the atrophy of place may change in time, but the phenomenon of atrophy longs in time.

individuals through the use of a questionaire. The sense of atrophy is revealed from within the experiential data by identifying the components that have been lost from the place identity (Context [Space-Time], Meaning & Experience).

The thesis strives to contribute the theories of place and lack of place from the perspective of the urban design and planning milieu, and to hopefully gain a new understanding of the current concepts. The thesis may help designers improve the contemporary design attitude with respect to the urban environment with the help of the new consciousness raised by the research.

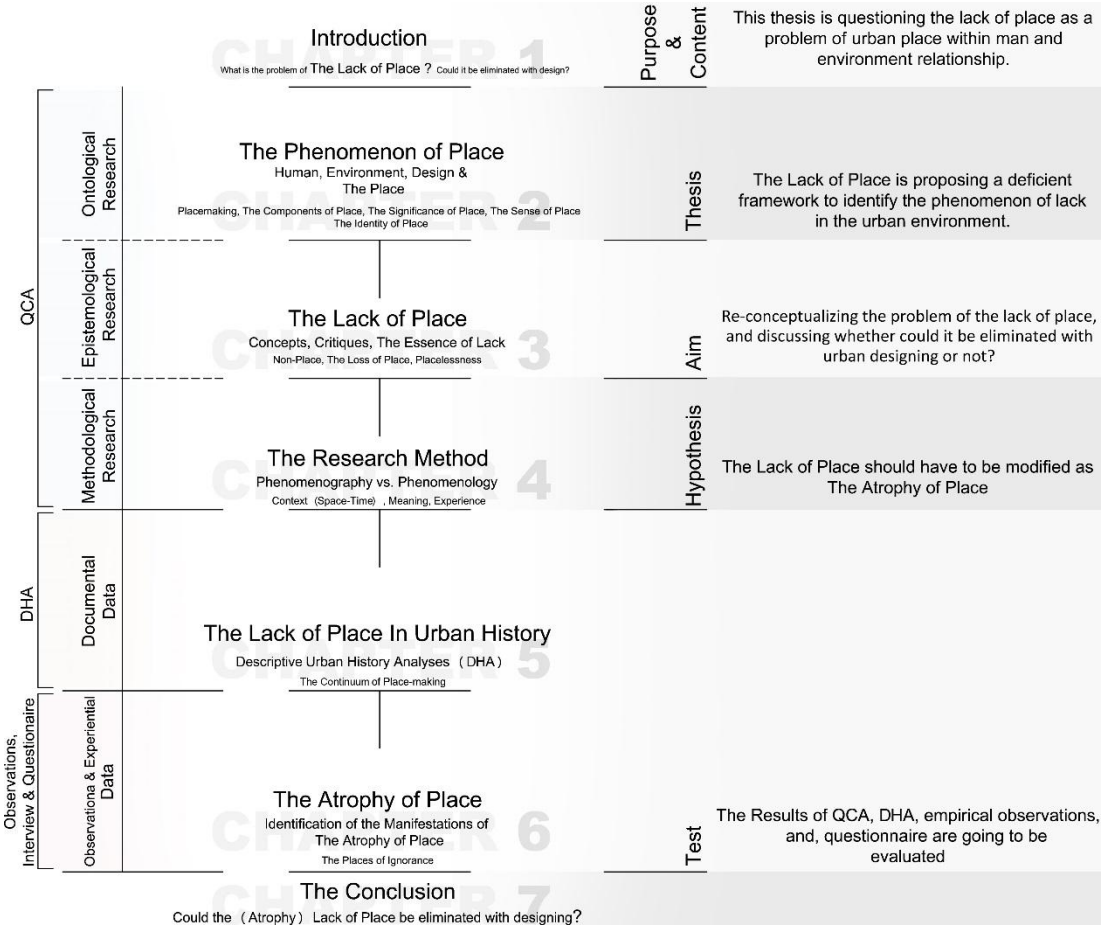

Figure 1.2: Schema of the Research
Source: Personal Drawing

CHAPTER 2

HUMAN, ENVIRONMENT, DESIGN & PLACE

This chapter presents a qualitative comparative literature analysis (QCA) of contemporary theories. Going beyond the scope of a literature review, the intention here is to make a critical assessment of available literature by comparing and contrasting the ontology behind the place concept. In addition to the literature review and analysis, a study is made of how they relate to each other in terms of place and the lack of place, and with respect to the human, environment, design and place.

Place is a construct of the ongoing relationship between the individual(s) and the environment, and this complex relation is structured out of signs and symbols. Place is a result of the significant experience of signs and symbols in the built environment, and the problem of lack of place arises out of deficiencies faced in experiencing these signs and signals. For this reason, the primary field of this research is the built environment, as the carrier of signs and symbols of the individual or society. If the ongoing interaction between human and the environment could be clarified, it would be easy to define what a place is, after which it will be possible to identify just how and where it is lacking.

This thesis examines the phenomenon of place and the lack of place as a complementary, prerequisite will to each other, and this chapter, set out in two main parts, investigates the relationship between place and the lack of place. In the first stage, the relationship between man and the environment must be explained in terms of the theory of place, after which, the phenomenon of place should be clarified. To

this end, the components of place, place-making, the significance of place, the sense of place, and finally, the identity of place will be examined.

It is the intention in this chapter to identify what is lacking in the place concept, and to establish the necessary framework for a literature review to aid the examinations of lack of place that will follow. The thesis goes on to establish a philosophy for understanding the relationship between humans, the environment, place and the lack of place. In this sense, the identity of place will also be reconsidered at the end of this chapter.

2.1. Human-Environment Relations:

The human race builds its relationships with the environment upon places. The environment affords places to survive, and humans exploit its potentials. This creates a certain latency in the affordance of the environment, and it is here that a lack of place begins. In this section, the lack of place will be explained from the perspective of the human-environment relationship, although it is first necessary to classify the different types of environment, after which, Gibson's views of the environment will be expressed. To conclude, latency in the affordance of the environment will be explained.

2.1.1. Types of Environment:

Environmental science identifies two main branches of classification, with environmental psychologists concentrating on human-environment relations (Spatial Dimension); and social psychologists and behaviorists focusing on individual/social and environment (Socio-spatial Dimension) relations.

One of the earliest studies in this regard dates back to Kurt Koffka's *geographical* and *behavioral* environment (1935). According to Koffka, "(human) behavior takes place in a geographical environment" (p.31, 1935), and this geographical environment

comprises both man-made features and natural elements, while place is a concrete phenomenon in the geographical environment, whether built or natural. According to Porteous, Koffka's classification was expanded upon in 1972 by Sonnenfeld, who conceptualized place as a "nested hierarchy of environments" (p.139, 1977). Porteous elaborated:

> "The entire universe, external to the individual, is the objective **geographical environment**. Within this lies the **operational environment**, which consists of those portions of the world which impinge on man, whether he is aware of this or not. That portion of which he is aware is termed the **perceptual environment**. Awareness may be the result of present sensations or past experiences, and may be derived at second-hand. The innermost level, or **behavioral environment**, is that part of the perceptual environment which also elicits a behavioral response toward it, or toward which such a response is directed." (Porteus, p.139, 1977)

Social psychologists and sociologists made a similar distinction to Koffka, adding the *phenomenal* and *personal environment* (Lang, 1987, Levin, 1951). Porteus added to this later with the *contextual environment,* identifying the human as a social being (1977) and emphasizing that individual experiences were largely colored by social norms (Porteous, p.143, 1977).

Herbert J. Gans and J.J. Gibson highlighted the interactions of the individual(s), expressing somehow the same distinction as *potential (physical)* and *effective environment* (Gans, 1968, Gibson, 1966, Lang, 1987). Gibson's model adopted the three classifications put forward by Porteous, being: *terrestrial/geographical,* the *animate* and the *cultural environment. The geographical environment* includes non-living things and their natural cycles; the *animate environment* consists of all living things, but mainly humankind and their various degrees of interaction with the environment and other living things; while the *cultural environment* refers to "symbolic legacy of previous situations" (Lang, p.80, 1987). The *cultural environment* includes such things as the writing, painting, architecture, engineering, language and advanced communication techniques that has been accumulated down through history by successive generations (Lang, 1987, Barlas, 2006).

In time, Gibson and Gans' ideas were improved upon by Stanford Anderson, whose reinterpretation elucidates the thesis better than his predecessors. Regarding place and lack of place, his approach provides an integrative understanding of the environment, with his most prominent contribution to environmental literature being his identification of the environment where place is lacking. According to him, there are three types of environment: *potential*, *effective/influential* and the *latent*. "Potential environment is the physical environment; an arena for potential actions and interpretations." (Anderson, p.6, 1987); the effective/influential environment is the "realized potential"; and the latent environment is the "unrealized or exploited potential" (Anderson, p.7, 1987). According to Anderson, the environment is reinterpreted by individuals, meaning that the potential of the geographical environment would be different from one person or group to another. Alternatively, if the potential is not recognized or exploited the environment is referred to be latent. The latent environment is where place is lacking. This raises the questions of how has this potential been exploited? And whether or not this exploitation is a loss or not?

Previous literature has claimed that all types of classification imply a potential that is served by the geographical environment, and this potential has been experienced and reinterpreted by the individual(s). The built environment is a product of such reinterpretations, or in other words, the built environment provides the opportunity to make places significant for each and every individual or group. Gibson describes the interaction between human and environment using the term: *affordance* of the environment, referring to what is going to be exploited or lost.

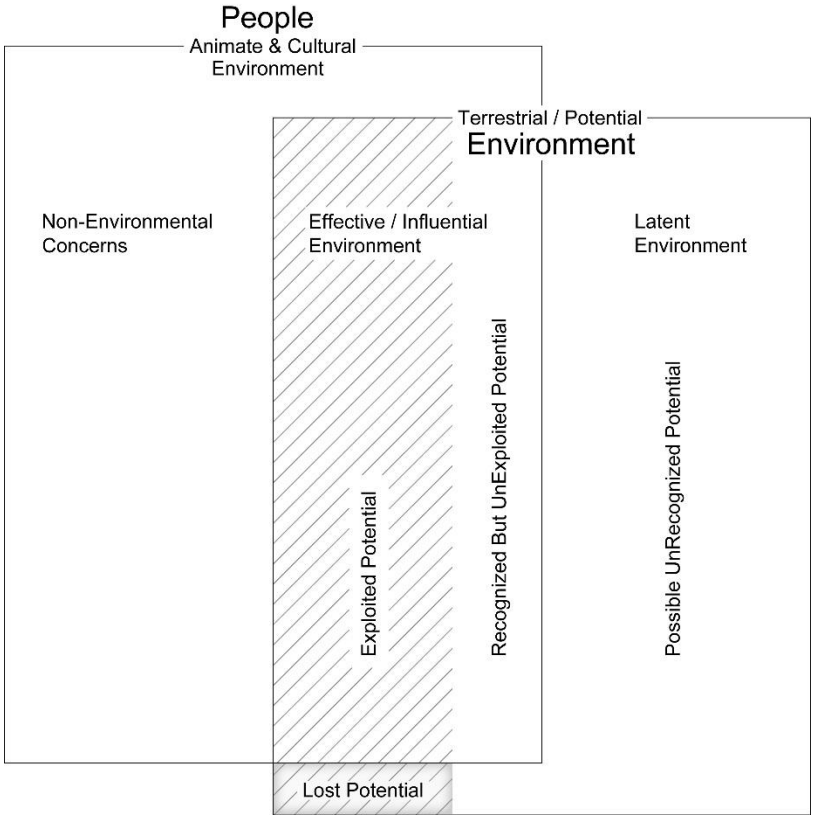

Figure 2.1: Man (Society) & Environment Relations
Source: Adapted and Edited From: Anderson, p.6, 1987.

2.1.2. Affordance of the Environment:

> "To be human is to live in a world (an environment) that is filled with significant places: to be human is to have and know your place" within this environment (Relph, p.1, 1976).

The human survives in the environment. He dwells in his place within this environment. Heidegger stated that "*place* places man in such a way that it reveals the external bonds of his existence and at the same time the depths of his freedom and reality", from which it can be understood, the human builds his existential bonds with places (p.19, 1958). The built environment is designed for the making of places. Moreover, "For Gibson, people make some changes and modifications in the features of the terrestrial, geographical and cultural environments to enhance their capacity to survive" (Barlas, p.18, 2006). The environment sustains potential for the experiencing,

carrying and conveying of the signs and symbols of one or a group by building them. Gibson identified the whole survival gameplay of one with his term: *affordance*.

Gibson's term of *affordance*[7] is fundamental to the understanding of the relationship between individual(s), environment, design and place. The environment affords a variety of things to the potential user, whether material or non-material (Lang, p. 83, 1987). In other words, the environment provides for physical needs, but also meaning. Indeed, the environment affords places for people to survive. Furthermore, the geographical environment is composed not only of **places**, but also **potential places** and **non-places**[8].

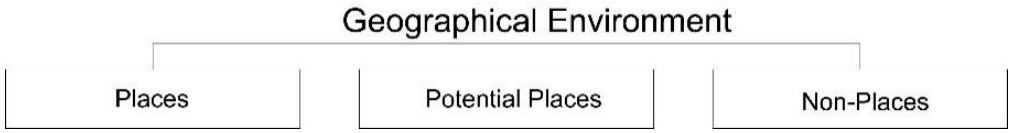

Figure 2.2: Geographical Environment regarding Theory of Place
Source: Personal Rendering

The phenomenon of place may be explained in three main stages in parallel to Gibson's term of affordance, as can be seen in Figure 2.3, namely, significance of place, sense of place and identity of place.

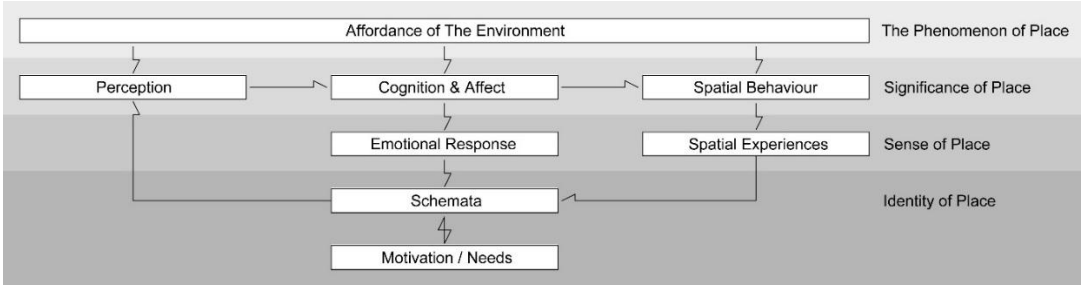

Figure 2.3: Affordance of the Environment & the Phenomenon of Place
Source: Adapted and Edited From: Gibson, 1966, Lang, p.84, 1987, Barlas, p.16, 2006

[7]This terminology dates back to Koffka's *invitational quality* (1935) and Kurt Lewin's *Aufforderungscharakter* (Lang, p.81, 1987)
[8] The concept of Non-place used here is different to the Non-Place of Webber et al. 1964 or Augé, 1995. Here, Non-Place is where the atrophy of place takes place. The author advises that one should read this part over again.

First of all, the environment must be perceived to a significantly. Perception is a sensory experience that humans use to obtain information from the terrestrial environment, while cognition is the acquisition, organization and storage of that information. The two processes of cognition and affect are learning and memory, from which information is categorized and/or generalized. Affect is an evaluation of the environmental information that has been obtained, and is related to emotions, likes and dislike, and cognition and affect are both bounded to the animate and cultural environment. The significance of place is the product of perception, cognition and affect, and is shaped by spatial behavior. Significant parts of the environment are places for individuals or groups, and the process of signification is related to the assignment of meaning of that part of the geography (Lang, 1987, Barlas, 2006).

Second, to reach a certain sense of place, the environment must be experienced significantly. Sense of place is produced out of an emotional response and spatial experience of the location, and is bounded to re-experiencing previously stored (spatial) experiences.

Finally, the identity of place is structured with a certain sense of place. The built environment provides us with our basic needs, with the satisfaction of those needs being the main motivation. The needs and motivations urge human being to identifying his/her environment. Previous literature contains three main models for defining needs and motivations: Alexander Leighton's scale of essential striving sentiments (1959), Abraham Maslow's (1943) hierarchy of human needs and Edward T. Hall's (1959) anthropologic explanation. Maslow's definition is useful and simple. He ranked human needs from strongest to weakest, respectively *physiological*, *safety*, *belonging and love*, *esteem*, *self-actualization*, *cognitive and aesthetic* (Lang, 1987). Hall's approach, on the other hand, explains the relationship between human, society and environment more comprehensively than other approaches, presenting a unique theory that identifies **exploitation** as an integrative result of the relationship between human and his environment. According to Hall:

> Interaction (with Terrestrial Environment): To interact with the environment is to be alive, and to fail to do so is to be dead. Learning, play (to modify environment) and defense are specialized forms of this.
> Association (Animate Environment): Humans have an elaborated function in which they create a particular set of symbols to modify their interactions with others.
> Subsistence: Obtaining material needs to survive such as: food, water.
> Bisexuality: The need to produce. Being a man or woman is the basic distinction within the animate environment.
> Territoriality: This is the basic spatial requirement for one to interact and associate with the environment and society.
> Temporality: Life is full of cycles and rhythms, such as heartbeat, respiration, day and night, etc. It refers to the time component of place.
> Exploitation (Use of Materials in Cultural Environment): Humans modify their environment using materials. Building with materials creates a specialized environment. The elaboration for a specialized environment also causes disregarding some potentials of that environment. The disregarded features are exploiting the potential in terrestrial or cultural environment. (Personal remark from: Hall, p. 62-69, 1959)

Furthermore, *Schemata* is a critical element of the table, providing an essential algorithm for each and every individual that provides the basis for the production of meaning after perception, cognition and behavior. An identity of place will be assigned to a certain sense of place through the *schemata*, needs and motivations. (Lang, 1987, Barlas, 2006).

> "A Schema … is internal to the perceiver, modifiable by experience, and somehow specific to what is perceived. The schema accepts information … and is changed by this information, it directs movement and exploratory activities that make information available, by which it is further modified" (Lang p.94, 1987, Quoted from: Niesser, 1977).

Gibson's diagram should be evaluated as an ongoing process in which the *schemata* has a critical role. *Schemata* are modifiable by experiences, and are also structured by past experiences, while also carrying information from past experiences. "Since, culture is learned," *schemata* have significant effect on structuring our basic needs and motivations (Hall, p.61, 1959). It may be understood from here that the cultural environment is a derivative of the terrestrial and animate experiences that are shaped by basic human needs and motivations. In the geographical environment, the human-made portion has been increasing and the cultural environment is accumulating. At the same time, the relationship between humans and their environment have been changing while this ongoing relationship has been exploiting the affordances of the environment.

In conclusion, humans both experience their environment, and have the ability to enhance their experiences by designing the environment. Humans design their place by building their environment. In this regard, a human has the capacity to enhance the affordances of the environment according to their needs and motivations. While enhancing certain attributes of the environment by building, some others are disregarded. This is the exploitation, and as identified by Hall in his anthropological theory, this exploitation is also a leading aspect of the relationship between human and environment. This wasted potential creates a certain latency of affordance within the environment.

2.1.3. Latency of the Affordances: *Exploited & Lost Potential of the Environment*

There are two reasons for the existence of latency in the environment. First, there may be a possible unrecognized potential that has yet to be experienced, and second, Gibson and Anderson's explanation proves that a fluctuating relationship exists between the *influential* and *latent* environment as a result of the ongoing intersubjective experiences of the environment. The latent environment is composed of possibly unrecognized potential, while also addressing lost potential after exploitation. When a place loses its significance, it becomes a part of the latent environment.

"Latency can be increased or decreased by physical change."(Anderson p, 7, 1987). The *schema* of an individual or a group may not fit that of others, as the symbols or signs of an individual or a group may not be meaningful to others in the built environment. In other words, "one person's influential environment may reveal what is latent for another" (Anderson, p.7, 1987). The affordance of the environment may not be recognized by the *schemata* of another, having evolved out of different intersubjective experiences. In short, our different past experiences produce a certain variety of *schemata* that may make someone blind to the affordance of the built environment. The environment carries the built signs and symbols of earlier generations, and these may not fit in to the next generations. From one generation to the next, it is inevitable that the places of an individual or a group will become lost.

Consequently, the ongoing process of place-making results in a certain kind of latency related to the affordance of the built environment. In this regard, designing a built environment not only produces a place for people, but may also exploit a potential.

> "Some places have died – the world is indeed full of the skeletons of dead places, Stonehenge and Carnac, the ruined cities of Aztecs and Incas, ghost towns, and abandoned farms, which have been stripped of their original meanings and become little more than objects of casual and uncommitted observation for tourists and passers-by and other outsiders." (Relph, p.32, 1976)

The built environment has always brought a certain degree of latency in affordance. As Relph stated above, places in the built environment have been dying, which is the result of the different embedded *schema* of the individual(s). Lang, quoted by Neisser, (1977) stated: "Design involves many simultaneous processes that use different *schemata* embedded in each other" (p. 57, 1987). The *schema* that are imposed through experiential accumulation create latency in the observation of environmental affordances. The ongoing latency of the built environment has created a certain lack of place throughout the entire settlement history, and this is the basic function behind the lack of place. To provide a clear understanding of this process, the phenomenon of place must be examined in detail.

2.2. The Phenomenon of Place:

Place can be considered a phenomenon, in that "our everyday life-word consists of concrete phenomena … A concrete term for (the) environment is (the) place." (Norberg-Schulz, p.6, 1979). The phenomenon of place is in a figure-ground relationship with built settlements and the natural landscape (Norberg-Schulz, 1979), just as the phenomenon of place is related to geographical knowledge, whether it is experienced or known from our past experiences. "It is about those units of experience within which activities and physical form are amalgamated: places" (Canter, p.1, 1977). Place is an amalgam of the mind and geography, which is why places are a mind-blowing phenomenon.

The phenomenon of place is composed of two basic dimensions: experiential and psychological (Tuan, 1974, Canter, 1977). First, the phenomenon of place has an experiential dimension, rather than being a static concept. "You experience continuity" (Sennett, p.219, 1992). The phenomenon of place is related to the totality of our continuous experiences, and the built environment is inherited from our experiences. Every generation has experiences and designs their built environment in a particular period, and this composition of the built environment and nature is referred to as the experiential environment, the main variables of which are space and time.

Second, the phenomenon of place has an abstract (mental) dimension, being "(an) artificial environment they have built as an outcome of mental process – similarly, myths, legends, taxonomies, and science" (Tuan, p.13, 1974), and the human brain is a storehouse of past experiences. "We may represent or symbolize any given place in particular way, these symbols draw their meaning from our conceptual systems of the place in question" (Canter, p.157, 1977). The main variable in the psychological dimension of place is meaning.

Phenomenology explores and describes the relationship between things, the environment and the human (Castello, p.3, 2010). The place is a continuous experience between the experiential and psychologic dimensions of the environment. Experiences construct the places by composing the psychologic and experiential dimensions of it.

2.2.1.Components of Place:

Of these four basic components of place (space, time, meaning and experience), space and time are experiential components[9] that exist in the environment naturally; meaning is a psychological component of place that is assigned by the individual(s); and

[9] In fact, these two separate concepts exist in a continuum, and refer to a space-time dimension. This space-time dimension will be identified as the context in further parts.

experience refers to the sustaining of the continuous relationship between the space-time and meaning of the environment.

If any of these components are missing, the place will not be formed; and if any of them are lost, the place would be lost. Space and time cannot be lost because they exist as natural phenomena, although they may change in line with the meaning and experiences of the individual(s). To understand a lack of place, one must know what has been lost from each and every component of place.

2.2.1.1. Space:

> "Space has been contrived by architects and defied by critics, filling the vacuum created by fugitive symbolism" (Venturi, Brown & Izenour, p.148, 1972).

Space provides the essential framework of places as the context for the physical and abstract phenomenon. There are two different approaches to conceptions of space, both of which have contributed to the theory of place: The experiential approach (Norberg-Schulz, 1971, 1979, Tuan 1977, 1974, Relph 1976); and the anthropological approach (Hall, 1959, 1966, 1967) to space.

Norberg-Schulz put forward five conceptions of space: *pragmatic space*, *perceptual space*, *existential space*, *cognitive space* and *abstract space*. According to Norberg-Schulz:

> "The pragmatic space of physical action, the perceptual space of immediate orientation, the existential space which forms man's stable image of his environment, the cognitive space of the physical world and the abstract space of pure logical relations. Pragmatic space integrates man with his natural, "organic" environment, perceptual space is essential to his identity as a person, existential space makes him belong to a social and cultural totality, cognitive space means that he is able to think about space, logical space, finally, offers the tool to describe the others" (Norberg-Schulz, p.11, 1971).

Space may transform, as a modifiable arena, to enhance the affordance of the environment by a human being, whether consciously or unconsciously. In more simple terms, it may be built by individuals. Norberg-Schulz and Relph refer to *architectural*

and planning space as a built environment. Architectural space is "contributing to unselfconscious spatial experiences, involves a deliberate attempt to create spaces" (Relph, p.22, 1976). In other words, "existential space is not merely a passive space waiting to be experienced, but is constantly being created and remade by human activities" (Relph, p.12, 1976). The contributions of architectural modification transform our built environment, and as a result, the human has an evolving consciousness of space. The question that arises here is what kind of transformation is this? Edward T. Hall's anthropological approach to space provides clues to the description of this transformation.

Second, Halls' famous anthropological approach is based on his term *proxemics*. "The term proxemics is used to define the interrelated observations and theories of man's use of space" (Hall, p.101, 1966). Space is manifested in three ways in the environment, at formal, informal and technical (Hall, 1966). Formal features are *fixed-featured* and *semi fixed-featured spaces*, although humans experience his world also in a formless way that can be referred to as *informal space.*[10] Lastly, *technical space* refers to the machine interposed interactions. The built environment is composed of *fixed-featured space*, s*emi fixed-featured space*, *informal space* and *technical space*, and this approach is adaptable to the architectural environment.

> Fixed-Featured Space: composed of buildings and architectural structures.
> Semi Fixed-Featured Space: composed of things open to modification in space. Architectural elements, landscape features, etc.
> Informal Space: composed of living bodies and their hidden territories in space.
> Technical Space: composed of human-made tools and machines that help us to enhance our interaction. Vehicles, machines, automobile, mobile-phones, etc. (Hall, 1959, 1966, 1967).

Hall's distinction concerns the temporality of things in space. There is a hidden time dimension within his approach. Fixed featured space lasts longer than the lifespan of the individual, while semi-fixed featured space may change within a lifetime. Moreover, informal spaces are instantaneous and technical spaces are machine based,

[10] Informal experiences are explained in terms of territorial distances. This is Hall's most noteworthy contribution to literature.

as no bodily presence is needed. “Architects traditionally are preoccupied with the visual patterns of structures … -People- are almost totally unaware of the fact that – they- carry around with them internalizations of fixed–feature space learned early in life” (Hall, p.18, 1967). Today, the fixed features of our built environment are decreasing as a result of the implementations of the machines and tools of our everyday life.

The main factor in the phenomenon of place here is temporality, with the fixed features of our environment becoming more temporary as technical features take their place. In the past, architectural space was more fixed than it is today, in that today we build, move and interact in a more temporary way. The formal features of space are continuously replaced by technical space, and as the former inhabitants abandon their places, the dead spaces once occupied by old places increase in number.

In conclusion, the increasing temporality of formal space results in a loss of the experiential conceptions of space, mainly the architectural and planning space. This new architectural space has a different ontology in its pragmatic, perceptual, existential, cognitive and abstract conceptions of space, and this new ontological understanding creates a more fugitive places in the environment for the individual(s) of the next generation. In this regard, place becomes a more ephemeral phenomenon in the urban space.

2.2.1.2. Time:

> “Time talks. It speaks more plainly than words. The message it conveys comes through loud and clear. Because it is manipulated less consciously, it is subject to less distortion than spoken language. It can shout the truth where words lie” (Hall, p.24, 1959).

Time is also a volume, and the fundamental difference between time and space is that time is an irreversible phenomenon. There are two types of events in phenomenology: reversible and irreversible events: Reversible events are able to return their initial state in time, while irreversible events cannot. The phenomenon of place over time becomes

irreversible,[11] in that there is no way of going back once it is built (mentally and/or physically). The irreversibility of the phenomenon increases the entropy of the system, i.e. in this case, the system is an environment (Pak, 2015). The relationship between human and environment has an entropic character, but why is this so?

While space would appear to be a reversible phenomenon, space-time is an irreversible phenomenon. The misunderstanding of space-time in literature of place has resulted in poor definitions. Tuan stated that, "If time is conceived as flow or movement then place is pause"; however, the phenomenon of place cannot be defined as a pause, being rather a continuous irreversible experience of existential space, and it is on this point that most explanations of the lack of place can be considered deficient (p.198, 1977).

Building an environment is an irreversible event. Architectural space has been proposing us places. After it is built, such places are unable to return to their initial state. While the location, form and pattern may be same, the place we build is not the same place at all. Furthermore, architectural space that is built as a certain moment will be the initial stage for the next generations, and as such, is irreversible.

Each and every "people – generations – differ in their awareness of space and time and in the way they elaborate a spatio-temporal world" (Tuan, p.119, 1977). The built environment has been modified throughout history, and as such, architectural space is an accumulation of inherited concrete symbols that have been left throughout history that give us a clear impression of the past. On the other hand, time distorts spatial information. The places of an individual or a group of people would not be the same for the next generation as a result of a different consciousness of space-time.

[11] For example, take two pieces of metal that are stuck together. If we heat one, the heat transfers to the other one. Those two objects will reach a thermal balance in the end. The state of being in a thermal balance would not change. On the other hand, an irreversible event would be adding milk to a cup of coffee, in that white coffee would then separate into black coffee and milk. It is something new and different, and cannot turn back to the initial state (Bağcı, pp. 14-18, 2015). Accordingly, the first example is reversible, and the second one is irreversible.

Every new generation creates its places on old places within the environment. The entropy of the environment increases through the irreversible acts of building that accumulate throughout history, while the entropy of the relationship between human and the environment increases due to the irreversible component of time within the system. This irreversibility of architectural space increases from generation to generation. In this respect, the affordance of the environment has reached a certain degree of latency through its construction. The individual(s) cannot possess concrete places within such a latent environment, and so some fixed features of the built environment are replaced in a formless way (informal and/or technical features). The formless features of built symbols are prone to temporality or becoming lost. In short, the urban place is an irreversible phenomenon, and the nature of the irreversible component of time creates a lack of place.

2.2.1.3. Meaning:

Interaction and association are fundamental necessities for the survival of humans in the environment and society. Symbols are the basic units of the interaction, and the meaning of the built environment is assigned by individual(s) through the creation of such symbols.[12] This meaning is not a property of the environment, but rather a property of the temporary human being. On the other side, the built environment act as a sign to experience those symbols meaningful, and is built for the purpose of providing a meaningful experience. "Buildings and places – even if they do not exactly 'carry messages' – do mark and inflect urban structure as well as urban texture: they signify" (Rykwert, pp.149-150, 2000). The individual builds his/her symbols to make his/her existence meaningful, and the urban place is the main arena in which we build our meaningful places.

There are different levels of meaning in the formation of symbols. Symbols may lose their level of meaning, and may become degraded or detached. In this regard, the levels

[12] The process of symbol formation will be explained in the following part (See also the Place Making: Rationalization part).

of meaning are interchangeable. “Meanings can change and be transferred from one set of objects to another and they – may – possess their own qualities of complexity, obscurity, clarity, or whatever” (Relph, p.47, 1976). The meaning of a built environment may be meaningful for one person and latent for another. Moreover, the built environment may be latent for someone, or for the next generation. The theoretical stances related to levels of meaning should be expressed clearly to clarify this latency.

Marc Auge made a clear-cut definition of *meaning* and *non-meaning* (1976), according to which, the ***meaning*** status has symbolic *schemata* that are fitted to the environment. In ***non-meaning*** status, the function is prior on the symbolic legacy of a state (Auge, 1976). The status of meaning may change depending on the priority of needs and motivations.

In contrast, Gibson’s ecological approach to perception includes two main types of meaning, being *learned* and *unlearned*. Learned meanings are *primitive/concrete meanings*’ *use meanings of instruments, devices, constructions and machines; value or emotional meanings, levels of signs* and *levels of symbols* (Gibson, 1950). According to Gibson, learned meanings have a detachable significance from things, while unlearned meanings prepare the basis for learned meanings (Gibson, 1950). According to him:

> “… the human infant does not begin to learn meanings at a zero level. They show the falsity of the notion that we are born with a set of meanings ready-made or a set of innate ideas, but at that same time they contradict the notion that all meaning is acquired … There is probably an embryonic meaning which goes with an embryonic visual perception” (Gibson, p.208, 1950).

Furthermore, Hershberger (1974) classified architectural meaning under two main categories, being *representational* and *responsive*. In representational meaning, “the architectural environment is known, in that it, and anything to which it refers, is represented in the human organism as a percept, concept, idea or whatever” (Hershberger, p.148, 1974). Representational meaning is divided into two further parts, being *presentational* and *referential meaning*. Presentational meaning is the

direct perception of form, shape, size, texture, color, etc., while referential meaning is a form that "acts as a sign or symbols of other objects or events" (Hershberger, p.150, 1974).

Responsive meaning is divided into three further meanings: *affective*, *evaluative* and *prescriptive*. Everyone acquire different responsive meanings from the same physical settings according to their individual *schemata*. Responsive meanings gain significance with our individual past experiences. Affective meaning refers to likes, dislikes and other emotional responses; evaluative meanings are judgments about a phenomenon; and prescriptive meaning is the meaning derived from perception, cognition and behavior. Although representational meanings are expressed clearly, Hershberger "fails to explain" responsive meanings with a distinctive spatial character (Barlas, p.27, 2006), which may be because responsive meanings are based on complex internal personal representations of experiences that are different for each. According to Barlas, the classifications of neither Gibson nor Hershberger adequately explain the meaning of place (based on Niesser's approach of *Schema*) (2006), however, psychoanalysts have come up with a solution to identify it better. While Niesser's *schemata* are useful in explaining the conscious components, psychoanalysts are interested in the unconscious side of the mind.

Finally, psychoanalysts have contributed to the theory of meaning by adding the "unconsciousness component of the mind in which memories are deposited to be awakened by the psyche", and distinguish between the personal and collective meaning of a place (Lang, p.95, 1987). An urban place is a communal entity, and the meaning of an urban place is built collectively by individuals. Sigmund Freud identified the individual unconscious, after which, Carl Gustav Jung differentiated the unconsciousness by adding the collective unconscious as a new layer deeper than the conscious and personal unconsciousness. One of the fundamental aspects in the meaning of a place originates from its personal, or more deeply collective possession of symbols. In this regard, the urban place has to provide a collective meaning, beyond the individual meanings.

According to the psychoanalysts, "Consciousness is a precondition of being … the carrier of this consciousness is the individual" (Jung, pp.33-34, 1957). For Jung, there are three psychic levels of the individual, traversing from the outside to inside: the conscious, the personal unconscious and the collective unconscious (Barlas, p.38, 2006). "The collective unconscious have an archetypal character" (Barlas, p.39, 2006). Archetypes sustain the interaction between the individual and collective unconscious, storing the symbolic formations of collective history. "Archetypes are the fundamental patterns of symbol formation" (Barlas, p.39, 2006). When signs of the conscious world are fitted to the archetypes, they became meaningful. Jung refers to these symbols as *sign*s. One of the difference between a sign and a symbol is that a sign has a greater ability to carry collective meaning than a symbol. Symbols are built by individuals, while a sign is the totality of these symbols. Accordingly, the built environment can be thought of as a sign that is triggered by symbols.

Our conscious world is full of ephemeral phenomena. In other words, archetypes would not be meaningful if they did not clothe themselves within the conscious world. The collective symbols of a group may be individualized and dispersed, and symbols may lose their representational quality within the deviations of the historical evolution of the built environment, and this means that meaning is detachable and degradable. If not experienced collectively as a sign in the built environment, meaning can easily transform into different levels.[13] Consequently, the urban place is a negligible phenomenon i.e. signs or symbols of signs may be detached or degraded.

2.2.1.4. Experience:

Experience is a key factor in this thesis, in that place is a meaningful experience of space-time. The term experience refers not only to the simple perception, cognition or spatial behavior of an individual or a group, in that it explains how different generations experience the environment in different ways, being related to the

[13] This idea will be explained in more detail in Chapter 6 as one of the main supporting ideas behind why the Atrophy and types of it.

consciousness of space-time. It also refers to how humankind communicates within society and the environment. The thesis presents an approach to understanding how human experiences are transformed into history. The subject of experience will be discussed and explained under three headings: scientific models of experience, dimensions of experience and types of experience.

2.2.1.4.1. The Models of Experience:

There are two basic scientific models of experience, being the ecologic/cultural and psychologic models. The ecologic/cultural model is based on stimulus, response theory, and focuses on individual and environment relations. It explains experience from the point of perception and cognition, and is based on the senses, taking a theoretical position that stands on Niesser's term of *schemata*. *Schemata* proposes a "filter type" model that is based on the past experiences of an individual (Rapoport, 1977). The psychologic model, on the other hand, focuses on the individual as a part of a community and environment, standing on the psychological explanation of conscious and the personal/collective unconscious. It is based the idea of "senses as active and interrelated systems" (Lang, p.86, 1987). While the ecological model identifies the place by explaining spatial stimulation, the psychological model improves it by explaining the relations and collectivity of the urban place.

The ecologic/cultural model elucidates the intensity of experience based on an S-R model, in which the **distinctiveness** or **sameness** of the experience is important in identifying the character of the place (Relph, 1976). The urban place has a distinctive spatial character, and stimulation must be at the optimum perceptional input, while the response must be at the optimum rate of complexity (Rapoport, 1977).

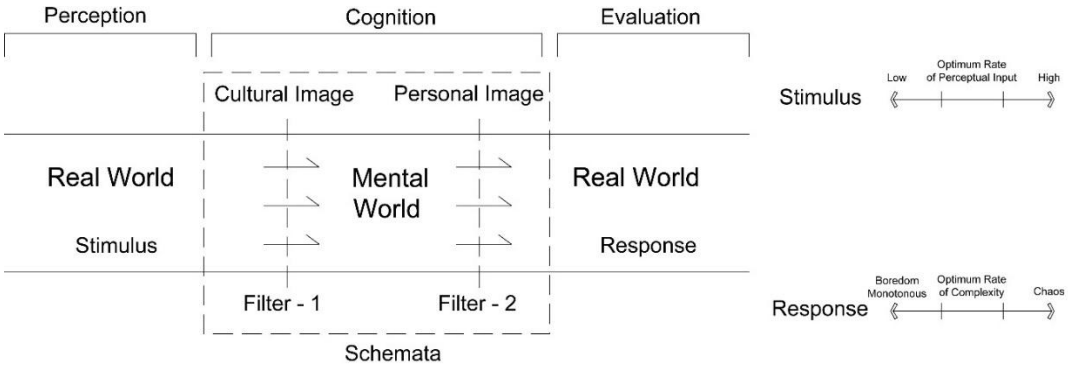

Figure 2.4: Ecologic or Cultural Model of Experience
Source: Adapted and Edited From: Rapoport, 1977

On the other hand, the psychological model proposes a dynamic basis for social and environmental relations, elucidating what being an individual in the society means, and is rooted from the collective consciousness. The model provides a more complex description of meaning that is based on signs, symbols and archetypes (as the fundamental patterns of a symbol formation). Archetypes sustain the interaction between the personal and collective unconscious, and the basis of the personal unconscious is the collective unconscious (Barlas, 2006). The urban place is not merely an individual experience in that it has also a collective character. In this regard, the urban place is an experience of spatial collective[14] symbols.

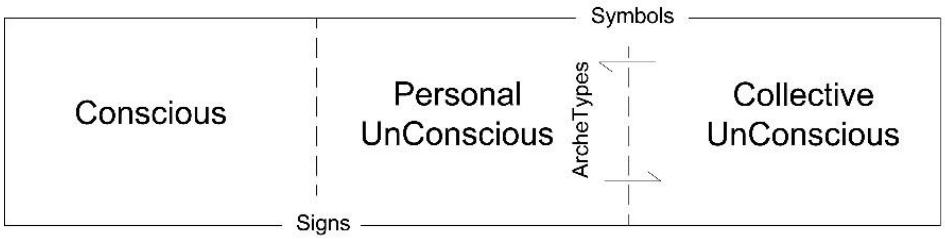

Figure 2.5: Psychologic Model of Experience
Source: Adapted and Edited From: Jung, 1957, Barlas, 2006, Lang, 1987

[14] The story of Diogenes and Alexander the Great shows the importance of individual and collective place. According to Thomas More's Utopia, When Alexander the Great invaded the city of Diogenes, he began to roll and tumble up and down with his famous barrel and fight for the city. He seemed to be living recklessly in his barrel until the invasion. He never felt the city was a place for him. After the invasion, the famous barrel in which he had dwelt had lost its significance and city walls had become more important. Only this way he could keep dwelling comfortably in his barrel. (Published in 1997).

Tuan explains the lack of place with respect to the sameness of experiences, "Symbols (of place) themselves have lost much of their power to reverberate in the mind and feeling since this power depends on the existence of coherent world" (Tuan, p.117, 1977). Urban symbols are presumable carriers of some collective meanings in a spatial character, which must exist distinctively in the urban environment. Accordingly, one should recognize the distinction of a place within the built environment through optimum stimulation, in that ordinary experiences would not provide enough stimulation or response to (re)create places in one's mind. Hence, built places lose their place attributes, which is one of the basic descriptions of a lack of place.

Furthermore, the symbols of a place lose much of their power when they are not signified collectively in the urban environment. Urban (place) symbols are presumably carriers of a collective meaning, and although the places of the individual are private entities, urban places are common entities. As a result, the urban place should be both a collective and distinctive entity.

2.2.1.4.2. The Dimensions of Experience:

> "The sign is a position of desire; but the first signs are the territorial signs that plant their flags in bodies" (Deleuze & Guattari, p.159 1984).

"Every living thing has a physical boundary that separates it from its external environment", and every individual and every social group has a non-physical boundary known as *territory* (Hall, p.187, 1959). "The act of laying claim to and defending a territory is termed territoriality", and the spatial experience of place is the psychological identification and arrangement of objects in this territory (Hall, p.187, 1959, Deleuz & Guattari, 1984, Barlas, p.30, 2006). Furthermore, space become a place through the *attachment* and *appropriation* of symbols by experiencing territories (The terminology borrowed from Heidegger by Günay, 2009). The following section will present the various scales of territorial signs that guide the dimensions of how place is experienced.

The first basic variable of territorial signs is the distance dimension, as the basic scale of one's experience of place. Hall identified four scales of territorial distances (1970), and his theory of proxemics provides information about "man's use (experience) of space" (Hall, p.101, 1956).

> "Intimate Distance: This is the distance of love-making and wrestling, comforting and protection. At this distance, facial expressions are more effective than vocal information. Hands can reach and grasp extremities (Approximately 15–45 cm).
> Personal Distance: This should be thought as the small protective sphere or bubble that an organism maintains between itself and others. This is the limit of physical domination in the very real sense (Approximately 45–120 cm).
> Social Distance: Intimate visual detail in the face cannot be perceived, and nobody touches or expects to touch another person. This is a very common distance for people who are attending a casual social gathering (Approximately 120–600 cm).
> Public Distance: The whole man may be seen as quite small, and he is perceived in a setting. This is the safe distance for moving people and certain objects. (Approximately 600 cm or more)" (Hall, pp. 21–25 1970).

Second, Oscar Newman proposed a territorial hierarchy in an urban setting in which there are four dimensions: *private, semi-private, semi-public* and *public* (1972). Here, the hierarchic structure ranges from common to personal experience. Newman's theory is simple and applicable to any setting, regardless of scale, from urban to home. On the other side, Porteous takes this theory one step forward, identifying nested hierarchies of territories (1977). His aim was to understand human behavior in an urban setting, and according to him, there are three types of territorial experience: *personal space* (as microspace behavior), *home base* (mesospace behavior) and *home range* (as macrospace behavior) (1977). *Personal space* mirrors the personal territorial experiences in Hall's approach; *home base* refers to the territorial signs in one's home and neighborhood units, referring to a territorial experience that starts from a family possession to a street or neighborhood unit; and finally, *home range* is a territorial area that one can reach. The distance dimension and abilities an individual gain importance in the home range type of territorial experience. Lyman and Scott make more or less the same definition as Porteous, claiming that there are four types of territories in human society: *public territories, home territories, interactional territories* and *body territories* (from largest to smallest) (Sommer, pp.43-44, 1969).

Finally, Relph defined territories as "man's basic awareness of the world, his experiences and intentional links with his environment" (p.16, 1976). According to Relph (1976) and Norberg-Schulz (1971, 1979), territories may be identified in terms of two direct experiences of the geographical environment, being *vertical* and *horizontal*, with the home standing as the central reference point. The vertical experience comprises five dimensions (from smallest to largest): *home*, *street*, *city*, *landscape* or *region*, *geography* or *nation*, while the horizontal experience comprises three dimensions: *districts*, *paths* and *nodes*, which give reference to each vertical scale.

In conclusion, place is something territorial. In territorial theory, place is not a *monosemic* concept. Arnheim stated that the "distance dimension distorts the information" (p.37, 1969). **Some places are more place, some places are less**. The attributes of place may change according to the dimensions of experience. Human bodies are not fixed featured, but are rather dynamic. Territorial signs change not only with movement, but also as a result of building history. "There is no question but territoriality produces waste (unoccupied) space" (Sommer, p.56, 1969). For Arnheim and Sommer, the continuous decomposition of the territoriality throughout the urban history has produced waste places, with places structured on the signs and symbols of the old places.

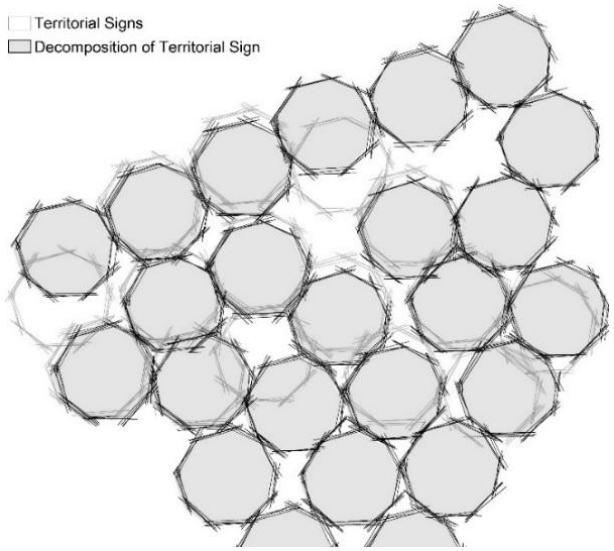

Figure 2.6: Decomposition of Territorial Signs
Source: Personal Rendering

2.2.1.4.3. The Types of Experience:

"In modern life physical contact with one's natural environment is increasingly indirect and limited to special occasions" (Tuan, p.95, 1974). The underlying reason behind this is the simply congested nature of the environment i.e. the over-crowding of spatial symbols and territorial experiences, in that over-crowding hinders spatial interaction. In human-environmental interactions, it is time that has gained relative prominence rather than space. The increasing relative importance of time over space has brought about a requirement for new types of experiences that are not bounded to spatial features. As Tuan mentioned, the new types of experiences are increasingly indirect.

This thesis puts forward three types of experiences related to the transformation of the relationship between man and his environment, being *formal*, *informal* and *technical* experiences.[15] The formal experience of the environment is in the process of becoming informal and technical (see Figure 2.7).

As emphasized previously, interaction is a fundamental need of humanity, and the entire gameplay of survival is dependent upon human interactions with society and the environment. In a crowded environment, the intensity of stimulation increases within a certain period of time. Human beings create new types of experiences to overcome this complex environmental and social stimulation, enhancing the affordances of the environment by introducing new man-made methods of interaction. The resulting new types of experiences create new consciousness that involve diminished spatial experiences, and this new consciousness brings a new space-time experience. The symbols and signs of the old consciousness have no meaning (or a different meaning)

[15] Categorization is inspired by Czarnowski T. V. The Street as a Communication Artifact, in Anderson S., ed., On Streets, Cambridge, Mass. The MIT Press, pp.206-212, 1978

in the new consciousness that is produced by new types of experiences. If the symbols and signs of a place lose their meaning, they will not be concretized by the following generation, and so would no longer be a place. A new consciousness brings new places instead of old ones by diminishing the spatial experiences of the former. Thereby, space is a fundamental component of place, and new types of aspatial experiences create a placeless environment.

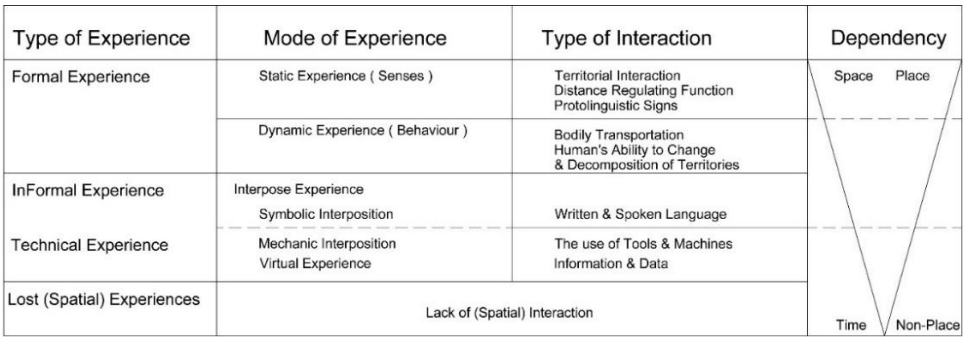

Figure 2.7: Types of Experiences
Source: Adapted From: Czarnowski, 1978, Hall, 1959, Barlas, 2006

2.2.2.Place Making: *Rationalization*

> "Many of the sicknesses of modern society are being claimed as the effect of the environment we have built for ourselves" (Canter, p.6, 1977).

After identifying the components of place in an attempt to understand the phenomenon of place, the thesis must now answer the question of why we build places. Why do human beings need to build artificial places? What is the underlying reason behind our efforts to start making places? Furthermore, why is this process creating sicknesses, as defined by Canter? Before answering these questions, it is first necessary to define the term place-making. Simply:

> "Place-making, by setting up boundaries, give rise to the polarities of 'in' and 'out', 'us' and 'them'. Being 'in' an insider, is good; being 'out', an outsider, is bad" (Tuan, p. 30, 2009).

There are two distinct type of place: *man-made* (built-artificial) and *natural place* (Norberg-Schulz, 1979). Natural place is either a part of the geographical composition, or a potential environment for man-made places. Man-made places, on the other hand,

are “purposefully created to signify the social nature of individuals” (Barlas, p.46, 2006). Man-made places are a conscious reflection of our unconsciousness within the natural environment.

According to Barlas, “The tension between the collective unconscious and the conscious may produce new symbols, which are in turn, realized as signs through the rationalizing process of the conscious part of the psyche” (p.41, 2006). Placemaking is a rationalization of our existence within the material world, and this is the purpose of place making. In contrast, a lack of place is the result of a human will to rationalize his social nature in the geographical environment. According to Norberg-Schulz, the process of rationalization has three main stages (1979), being **visualization**, **complementation** and **symbolization**, and this process clarifies why humankind is building i.e. settling, dwelling. According to him:

> “Man-made places are related to nature in three basic ways:
> Visualization: Man wants to make the natural structure more precise. That is he wants to visualize his ‘understanding’ of nature, ‘expressing’ the existential foothold he has gained. To achieve this, he builds what he has seen…
> Complement: Man has to complement the given situation, by adding what is ‘**lacking**’.
> Symbolize: He has to symbolize his understanding of nature (including himself). Symbolization implies that an experienced meaning is ‘translated’ into another medium… …-It- implies transposition of meanings to another place, which thereby becomes an existential center.” (p.17, 1979).

To begin with, human beings are “predominantly visual animals” (Tuan, p.6, 1974), and their experience is primarily visual. Unlike other animals, he has the unique “capacity of symbolization”, and this ability helps him to understand his environment by visually abstracting the complex relations in nature (Tuan, p.5, 1977, Jung, 1958). The individual produces symbols in the environment with respect to his/her experiences, and signifies them with *archetypes*. Signified space is place, and in this regard, place is a biological and also psychological phenomenon. Its significance falls under the perception of geography, and the spatial structure of a place is inherited from generation to generation via the physical composition of mass in space, so that places will not get lost.

Second, the human being complements what s/he visualizes. "Human being is rationalizing, rather than being a rational animal" (Tuan, p.14, 1974). His brain is a mediator between the gaps of abstract space and existential space, filling it with signs and symbols (Tuan, 1974). Man-made places are the end product of this process. One perceives his environment with his eyes, and complements it with signs and symbols. Finally, if given the chance, he may designate his place. Yet sometimes the gap cannot be filled only by spatial means. As Arnheim stated, this process, despite being creative in terms of place, it also causes a lack.[16] "… the incompleteness of the mental image is not simply a matter of fragmentation or insufficient apprehension but a positive quality" (Arnheim, p.107, 1969). The inadequate cognition of human beings brings about a loss of the spatial attributes of place while it is being re-designed. The creation of something new, might bring the end of some old spatial symbols (Signs), transforming them into more ephemeral symbols throughout the environmental design process[17].

Finally, human beings symbolize what they complement. The place is where the human being signifies with symbols by building them. The basic result of the process of rationalization is a design behavior. Once the environment is built, it changes irreversibly, in that "The structure of a place is not a fixed eternal state" (Norberg-Schulz, p.18, 1979). It may change or become inevitably lost. Symbolization is a continuous decomposition of the building signs and spatial symbols of individual(s).

> "… from the unconscious process of symbolization which continuous through the ages and which, as the primordial manifestation of the human spirit, will continue to be the root of all creation (atrophy18) in the future" (Jung, p.77, 1957).

Consequently, place making is based on a desire for the rationalization of oneself in the environment. As "lack is a counter effect of desire", the need for rationalization is stimulated by the sense of lack of place (Deleuze & Guattari, p.28, 1984). Throughout

[16] Atrophy is the opposite of a creative act.
[17] This transposition will be explained in Chapter 6.
[18] Atrophy is the inverse of creative act. (The author advises reading this part of the thesis again after reading the entire text).

history, the man-made environment has been expanding through the reciprocal process of rationalization, and the affordance of the geographical environment has been exploited by the accumulated creations of subsequent generations. Furthermore, the latency of the environment has been increasing through the continuous involvement of place making, which is why, according to Canter, this process has created a sicknesses. "Good design becomes a meaningless tautology if we consider that man will be reshaped to fit whatever environment he creates" (Sommer, p.172, 1969).

2.2.3.The Significance of Place:

Places are "significant centers of our immediate experiences of the world" (Relph, p.120, 2006), and the significance of place is assigned by way of a process of rationalization through visualization, complementation and symbolization. The result is a built environment as a symbol of existence. "A symbol is repository of meanings. It arises out of the more profound experiences that have accumulated through time" (Tuan, p.145, 1974). "The process of creating meaning is called signification" (Carmona, p.117, 2003), and the significance of place lies in the meaning and experience of symbols in the built environment. According to Levi-Strauss:

> "This whole problem of experience versus mind seems to have a solution in the structure of the nervous system, not in the structure of the mind or in experience, but somewhere between mind and experience in the way our nervous system is built and in the way it mediates between mind and experience" (p.5, 1978).

The significance of place may change, and as stated previously, some places are more place, some places are less. Accordingly, urban places may lose significance over time[19]. This section examines the different approaches to identifying the significance of an urban place, for which there are three main approaches in literature: semiotic, functional and phenomenological. The pioneers of these approaches are as follows.

To begin with, Robert Venturi, D. Scott Brown and Steven Izenour's famous work on Learning from Las Vegas indicated three ways architectural meaning or form can be

[19] Or it may be designed as less significant.

reduced. These are: placing a **big sign** in front of a small building; covering the building facade to create a **decorated shed,** and making the form of a building visually express its function, like the **duck**. According to Brown and Izenour, "Architects have preferred to change the existing environment rather than enhance what is there" (p.3, 1972). They separate the form from the meaning, although "There is no way to separate form from meaning; one cannot exist without the other" (Venturi, p.11, 1966). The key factor in their theory is derived from semiotics. According to them, there are two layers of meaning (1966, 1972), being denotative and connotative meaning. Denotation indicates a specific meaning, such that only the representational, referential or one of the responsive meanings of a form is expressed. It is explicit. On the other hand, the connotative meaning is a general meaning, being a combination of different types of meaning. It is implicit, and it has a certain spatial quality. The authors claimed that architecture and urban designers have been disregarding the spatial component of a place by over-emphasizing the denotative meaning. Accordingly, the urban place will lose its significance by over-emphasizing non-spatial symbols.

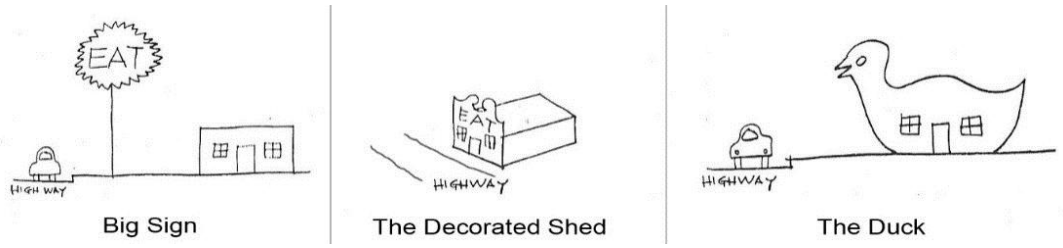

Figure 2.8: Three Ilnesses of Urban Design
Source: Adapted & Redrawn From: Venturi, 1972

Second, the significance of a place may be lost with an increase in non-human environments. According to Lang, as quoted by Izumi, 1968, there are two types of buildings in respect of their purposes (p.108, 1987). These are anthropozemic (Non-human) and anthropophilic (human). The concepts put forward by Izumi also make sense in the built environment. "Some buildings – environments – are designed more for the successful functioning of machines and equipment than for the people who run them. In other buildings – environments – the needs for people are paramount" (Lang, p.108, 1987). In anthropozemic environments, humans must adapt to the conditions of

a non-human environment. On the other hand, anthropophilic environments are designed for human, and tools, machines and equipment are adapted for human behavior. Briefly, while anthropozemic environments are designed for humans, anthropophilic environments are designed for machines. Accordingly, an increase in the density of the anthropophilic environment is detrimental to the significance of place.

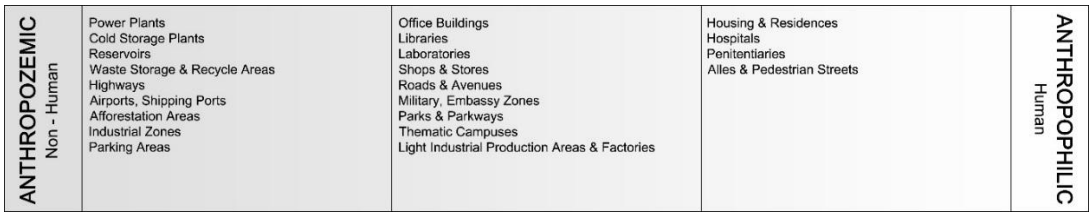

Figure 2.9: Anthropozemic Environment & Anthropophilic Environment in Urban Space
Source: Adapted & Redrawn From: Lang, 1987, Izumi, 1968

Third, Relph categorized the levels of significance of place with respect to the experience of **insideness** and **outsideness**. "The outside-inside relation which is a primary aspect of concrete space, implies that spaces possess a varying degree of extension and enclosure" (Norberg-Schulz, p.12, 1979). The essence of place underlies the established spatial relationship, and is distinguished by its quality of insideness (Relph, 1976, Castello, 2010). To be inside a place means to belong to there, and to identify oneself with respect to there. In other words, to be inside means one rationalizes one's existence with that place. "The inside-outside division thus presents itself as a simple but basic dualism, one that is fundamental in our experiences of lived-space and one that provides the essence of place" (Relph, p.49, 1976). Relph listed seven different levels of significance and their various involvements of place, as given in Figure 2.10 below. These are existential outsideness, objective outsideness, incidental outsideness, vicarious insideness, behavioural insideness and empathetic insideness.

Space	Existential Outsideness	It involves a selfconscious and reflective uninvolvement, an alienation from people and places. All places assume the same meaningless identity and are distinguishable only by their superficial qualities
	Objective Outsideness	It involves a deep seperation of person and place. The place is an object to study such that in St. Exupery's "Little Prince". It is planners and designers poisition to a place.
Lack of Place Placelessness Non-Place	Incidential Outsideness	Melvin Webber's "The Non-Place Urban Realm." Place is just a backdrop of the situation. For instance: visitor's place.
	Vicarious Insideness	Indirect experience of a place. The place is interposed by second-hand without actually being there. For instance: image, painting or mass media.
	Behavioural Insideness	It involves a formal experience of a space. It is being in a place and seeing it as a set of objects, patterns and structures. It is a deliberate attempt to make place.
Place	Empathetic Insideness	It demands a willingness to be open to significances of a place, to feel it, to know and respect its symbols.
	Existential Insideness	It characterises belonging to a place and the deep and complete identity with a place that is the very foundation of the place concept.

Figure 2.10: Insideness & Outsidness
Source: Adapted & Redrawn From: Relph, 1976, Castello, 2010, Carmona, 2003

In Relph's approach, the significance of place lies in the involvement of place. "Insideness may relate to and be reflected in a physical form, such as the walls of a medieval town, or it may be expressed in rituals and repeated activities that maintain the peculiar properties of a place" (Relph, p.120, 2006). The involvement of a place may change over time, and its significance may be lost. According to Relph, "… in short, uncommitted insideness is the basis for placelessness" (p.268, 2007).

In conclusion, there are various ways of identifying and measuring the significance of a place, and any changes in the significance of a place may be measured by using all of those classifications and descriptions. Should the significance of place decrease over time, it would be a proof of lack of place. Furthermore, what is created should be more significant than what is demolished or abandoned, as otherwise, it would increase the lack of place in the urban environment. In future studies, the measures presented in this part may be helpful in the production of a scale for measuring changes in the significance of a distinct place.

2.2.4.The Sense of Place:

The ultimate sense of place is "being there" and "being in" society, which Heidegger referred to as *Da-sein*. Rather than physical existence, *Da-sein* is identified as "being in time" by Heidegger (1953), who emphasized the temporality of being as the nature of the very being itself (Günay, 2009, Heiddeger, 1958, Malpas, 2006).

> "That the empirical representations of what is objectively present 'in space' occur as psychical events 'in time,' so that the 'physical' also occurs indirectly 'in time,' is not to give an existential and ontological interpretation of space as a form of sensibility, but rather to ascertain ontically that what is psychically objectively present runs its course 'in time'" (Heidegger, p.336, 1953)

> "If the 'subject' is conceived ontologically as existing Da-sein, whose being is grounded in temporality, we must say then that the world is 'subjective.' But this 'subjective' world, as one that is temporally transcendent, is then 'more objective' than any possible 'object'" (Heiddeger, p.335, 1953).

There are several concepts used for identifying the sense of place, all of which are built on the Heidegger's notions of existence, although they often propose a deficient framework in regard to time dimensions. The very nature of the sense of place should also address the temporariness of that place in time. Place-making is a continuous process, and this thesis suggests that (the sense of) place and the lack of place are complementary. This section includes preliminary descriptions of the sense of place, and the compatibility of the approaches related to temporality will also be checked.

To begin, the sense of place is often described in terms of the Ancient Roman concept of "Genius loci" or "the spirit of place" (Norberg-Schulz, 1979). An independent being has its own *genius*, and this is the spirit of life and death that proposes meaning and the opportunity to experience people and places. There are two psychologic functions involved in human-environment relations that refer the sense of place: "**orientation**" and "**identification**" (Norberg-Schulz, p.133, 2006, Norberg-Schulz, p.16, 1979). "To gain an existential foothold man has to be able to orientate himself; he has to know where he is. But he also has to *identify* himself with the environment, that is, he has to know *how* he is in a certain place" (Norberg-Schulz, p.133, 2006, Norberg-Schulz, p.16, 1979). The fundamentals of orientation are expressed in line with the Gestalt theory from the field of psychology, and furthermore, Norberg-Schulz referred to

Kevin Lynch's description of *node, edge, path, district* and *landmark*. From this perspective, when a human is unable to make an image to orient himself within the environment, he feels lost. On the other hand, *identification* is structured in line with the *schemata* of individuals from a certain accumulation of past experiences. *Schemata* is the main concern, dictating whether a person feels in or out of a place. Insideness or outsideness that is explained above is the fundamentals of identification. Moreover, *Genius* of a place is a function of time, to some extent (Norberg-Schulz, p.14, 1979), being a dynamic entity and a repetition of experiences over time. In contrast, Norberg-Schulz identified place as a dynamic entity, paying heed to the *Stabilitas Loci*, referring to a necessary condition for humans to survive (1979). In this sense, his concept of *Stabilitas Loci* means conserving the identity of a place. If the place is also in time, it should be transformed, though some of its features may change or be lost. What kind of features exist and how much should they be conserved? A discrepancy related to conservation can be observed in Norberg-Schulz's texts. In the following chapters, this thesis aims to answer this questions.

Second, Tuan describes sense of place as "the affective bond between people and place or settings" (p.4, 1974). He conceptualized the sense of place using the term "**Topophilia**" (1974), being a tie between people and geographies, and "the human love of place" (Tuan, 1974, p.92). The environment carries concretized meanings of events, and these meanings are merged into the symbols in the environment. Experiencing those symbols takes time, although one's range of consciousness is enhanced throughout the time by such experiences. Tuan's use of the term "experience" constitutes one of the main contributions to the theory of place. Tuan describes sense of place is a conscious reflection and reaction to the environment, and his description of sense of place can be considered inspirational, though not often identifiable/quantifiable within the disciplines of city planning and urban design. He also identified the "place is pause" (1971, 1974). The urban place should not be considered a static entity, being rather something more than one's own sense of place, like "pause". Sense of place should go beyond the generations that lived there in a distinct period of time, and the spirit of that place should also originate in history.

Third, Relph attempted to establish a historical continuity in the sense of place (1976), putting forward two approaches that he referred to as **authentic** and **inauthentic** place making that could be embodied both selfconsciously and/or unselfconsciously. The authentic unselfconscious sense of place is a direct and genuine experience of place. One feels "being in" the place and belong to that place, both as an individual and as a member of a community. It is a direct and complete sense of place with reflections upon the material world. It can be observed either in primitive settlements or by a modern city-dweller in search of a home (Relph, pp 64-66, 1976). On the other side, the authentic selfconscious sense of place is "manifest in attempts to create places that reflect a clear and complete conception of man as well as sensitivity to the significance of place in everyday life" (Relph, p.71, 1976). For instance, it is observable in Ancient Greek settlements, in Sixtus V's Rome and in Renaissance cathedrals. Authentic selfconscious places are a composition of the man-made, nature and society, all of which come together. A certain type of power group or elite has the ability to make places for everyone.

On the other side, an inauthentic sense of place "is the prevalent mode of existence in industrialized and mass societies, and it is commonplace to recognize that mass values and impersonal planning in all their social, economic, and physical forms are major manifestations of such inauthenticity" (Relph, p.81-82, 1976). This is a different order, in that inauthenticity creates a feeling of "**otherness**" (Sennett, 1992). It has no sense of place, but could the transition from authenticity to inauthenticity be a sudden phenomenon?

> "… past must have been better than the present, and are nicely uncomplicated: past places were good, present placeslessness is bad, therefore we should make places in the old way. Such a fix is far too simple" (Relph, p.122, 1976).

Although Relph's theory fails to answer this fix, it is one of the leading conceptual frameworks related to the place and lack of place. Moreover, there is a misperception in Relph's theory, in that every attitude related to placemaking is a conscious reflection of our unconscious world. What was once selfconsciously made will be experienced unselfconsciously for future inhabitants. What was once inauthentic gains authenticity

as time passes. Relph overlooked historical continuity while describing the sense of place. Authenticity and inauthenticity are issues of time that have a continuous involvement of place throughout history. There would not be a present separate from the past, and such a separation would not be as discrete as in Relph's theory.

In conclusion, sense of place refers to a sense of *being there, being in* society and *being in* time. Sense of place is a concrete feeling of existence, and humans rationalize their existence through places. The inverse of existence is to be lost, and so a lack of place means to not exist. Sense of place is "a deep human need [that] exists for associations with significant places" (Relph, p.123, 2006). Humans, as temporary beings, have a sense of place because of having a sense of loss. In other words, their sense of places exists due to our sense (fear) of the lost. The urban place is where this continuous involvement of place-making has takes place throughout history.

2.2.5.The Identity of Place: *The Identity, Self & the Environment*

The thesis provides a framework for the identification of places, and the issue will be elaborated in further stages to discuss the lack of place. The originality of the study is based on its handling of place and lack of place as complementary contextual phenomena. In this respect, this part provides a new conceptual framework for the identification of place, while criticizing contemporary explanations. This section presents these contemporary explanations and criticisms of them, and an original description of the identity of place. In general, the identity of place is defined in literature according to two or three sets of concepts, and although these concepts are different from each other, they refer more or less the same component of place.

First, place is identified through the two concepts of **structure** and **meaning** by Norberg-Schulz (1979), who claims that *Structure* "denotes the formal properties of a system of relationships" (Norberg-Schulz, p.166, 1979). On the other hand, the *meaning* of any object consists of its relationships to other objects. That is, it consists in what the object "gathers" as a psychic function from subjects (Norberg-Schulz,

p.166, 1979). The totality of *structure* and *meaning* provides *character* in a spatiotemporal environment; the structural familiarity in the *character* of spaces produces places; and the identity of place lies in the *character* of a place. In fact, the *character* is a context given by environmental settings and manifestation.

Second, Canter (1977) and Relph (1976) used three concepts to identify places, claiming that the identity of place is a function of **physical attributes**, **activities** and **conceptions** (Canter, p.158, 1977), with physical attributes and conceptions being the same as structure and meaning. According to Canter, the place is an amalgam of conceptions derived from the physical form and the activities that take place (1977). Congruently, Relph stated three components of place as the constituents of identity: **the static physical settings**, **the activities** and **the meanings**. Although place cannot be identified as a static entity, Relph emphasizes the identity is static, concurring with Tuan. According to Relph, static physical settings and activities may be easily understood, however the meaning component is critical for understanding the place identity and the loss of place (1976).

> "The meanings of places may be rooted in the physical settings and objects and activities, but they are not a property of them – rather they are a property of human intentions and experiences. Meanings can change and be transferred ..." (Relph, p.47, 1976).

Meanings are defined as the ephemeral component of place, and are open to manipulation through mass knowledge and mass media. They "shift in the symbolic and significant properties of places" (Relph, p.61, 1976). "Mass identity is indeed little more than a superficial cloak of arbitrary fabricated and merely acceptable set of signs" (Relph, p.61, 1976). Mass identities destroy the identity of places with no sense of place, no significance. This is how Relph began defining his theory of placelessness. However, the problem of place and the lack of place cannot be reduced to the loss of one component of identity. In fact, mass identities are another format of identity, intruding the place identity.

In fact, the identity of place may change over time, and may either expand or be enriched, or it might get lost or disintegrated over the course of time. In this regard, the identity of place should provide the necessary framework for determining how places are transformed, but how has the urban place been transforming? And what kind of process is underway in the contemporary urban environment? Tuan provided a very simple and brief answer to those questions, describing the relationship between the identity, self and the environment:

> "This seems to say that identity changes over time, that we are one sort of person when young and another sort when mature or old …
>
> … Change is clearly good if it means putting away childish things. But change as loss and disintegration in life's downward path to death is unwelcome. This ambiguity toward change in the self is carried over toward change in the environment, which is understandable, given the intimate bond between the two" (Tuan, pp.12-13, 2004).

There is a tension between the self and the environment, and this is the tension that exists between the conscious and unconscious world of the individual(s), and brings about an ongoing transformation within the built environment.[20] This tension is manifested as a place or a desire of place. When one's conscious world fits in with the unconscious world, the place is identified, but if it does not fit, it will be forced to be rationalized by oneself to identify a place. The place is always under compelled to transform and reproduce the identity from generation to generation, meaning that place identity cannot be reduced to a set of static components of identity, being rather in-built between the self and the environment.

In brief, three main critiques are developed in this chapter following the qualitative comparative literature analyses about the theory of place, with each being related to the components of place: context, meaning and experience. These are:

- The place cannot be identified as a static entity. Physical settings have been transforming over time, and this produces history. Space and time should not

[20] Tuan referred to this tension as "The tug of life" (2004).

be thought of as separate components, as they have to be handled as the **context** of place.

- The place is manifested in various components and in different ways, and the temporality of place is indifferent for the components. The experience of place is instantaneous. The meaning of place may last for a generation. The context may endure more than a couple of generations in the environment. Hence, the **meaning** of a place identity may change over time. It may either expand, be enriched, degraded or detached[21].
- The place is an **experience** rather than activity. The activity remains deficient if it was to describe the place. It often refers to a function, land-use or behavior in that place, although the place is much more than the activities, land-uses, functions and behaviors that occur in that place. It is both a conscious and an unconscious experience.

After developing the above critiques, the thesis should define the identity of place, which is formed out of **Context**, **Meaning** and **Experience,** as shown below. The place is the space where meaningful experiences take place in the context of space-time. As expressed previously, the components of place are space, time, meaning and experience. The continuous transformation of space and time should be defined with the context. Rather than the term activity, the thesis would prefer to use the experience term. The experience implies the way human interact with its environment instead of the odd term activity.

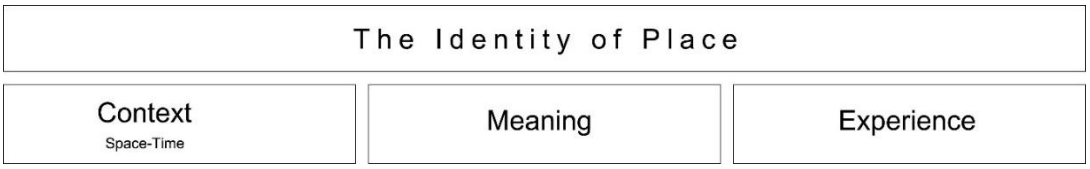

Figure 2.11: The Identity of Place
Source: Personal Rendering

[21] In this regard, a lack of place should be something more than a mere loss of meaning in a place, as it is also a loss of context and experiences.

In conclusion, if there is a lack of place, it would be identifiable from the lack of any component(s) of place identity. This is the basic definition of the lack of place that will be addressed in the following chapters. The loss of a component of identity may not be enough for the creation of a complete framework for the lack of place, and a component of identity may also change how it is manifested over time. In other words, (the format of) place identity may manifest in various ways, and this is identified as neither a loss or a lack, nor a place-making. This process would be better described according to a different framework (the atrophy of place).

CHAPTER 3

THE LACK OF PLACE

This chapter reviews the contemporary concepts surrounding the Lack of Place, and proposes a second qualitative comparative analysis (QCA) related to these concepts and their relationship with each other.

Simply, Lack of Place originates from a loss of component(s) of place identity, although the phenomenon of "lack" is much more than this, and may be underestimated. For this reason, critiques of the concepts will be elaborated to reach a new phenomenological framework, if possible. Before presenting the critiques, the thesis makes a conceptual classification of the concepts of the Lack of Place.

Place and lack of place phenomenon are examined as two distinct phenomena by the contemporary authors, but this thesis considers them to be complementary of each other, a natural result of the human-environment relationship, possibly two sides of a single phenomenon. Thus, the thesis aims to add a conceptual sophistication to the theory that is why this part of the study will be dealing with the essence of the phenomenon of lack. At the end of this chapter, the thesis will identify the deficiencies in the concepts and be able to develop a theory of the Lack of Place as a part of the phenomenon of Place.

3.1.The Lack of Place:

Lack of Place is a generic definition, referring to a lack of any component in place identity, and the term encompasses the concepts of Non-place (Webber et al. 1964;

Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976). This part categorizes these concepts in terms of how they define the phenomenon of lack, taking into account the components of place identity (See Figure 3.1.).

The concepts related to Lack of Place were first introduced as a criticism of modern urbanism by Melvin Webber in the 1960s, with his term Non-Place being associated with places lacking opportunities for face-to-face interaction, and later redeveloped by Augé after 1995. Likewise, Norberg-Schulz focused upon the loss of character of Place in the contemporary urban landscape (1979), stressing the lack of context in place identity. Relph being concerned about the loss of meaning in Place identity, proposed a framework of placelessness (1976), and his conceptualization is known as one of the leading explanations for Lack of Place.

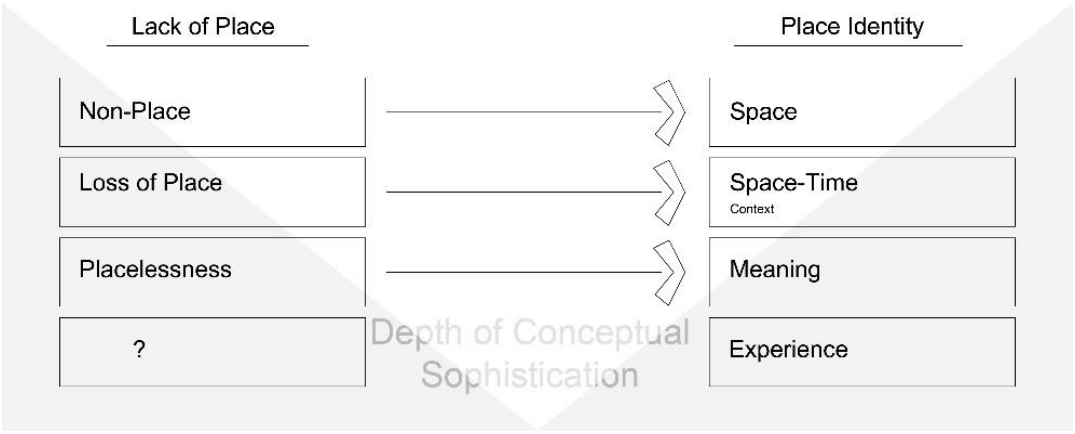

Figure 3.1: Concepts of Lack of Place & Components of Place Identity
Source: Personal Rendering from Webber et al. 1964; Augé, 1995; Norberg-Schulz, 1979; Relph, 1976

Each conceptual definition develops and embraces the older concepts, and each step increases the conceptual depth of the theory of Lack of Place. Thus, Lack of Place has opened up a new field of research in the theory of Place, investigating the opposite state of *Da sein*. This new branch is interested in the essence of place, criticizing the ontology of urban place from the inverse state. As Arefi mentioned, the theory of Lack of Place "can provide planners and designers with new insight to better capture the essence of place" (p.179, 1999). However, there may also be criticisms of the concepts in literature, with the main concern being the "lack of conceptual sophistication"

(Seamon & Sowers, p. 48, 2008). While concepts related to Lack of Place have been helpful in understanding empirical urban problems, none of the above put forward a comprehensive conceptual framework for understanding the phenomenon of the lack. That said, research into the Lack of Place may have contributed much to the theories that deal with the relationship between man and his environment.

"In all societies at all times there has been some placelessness, and insofar as lack of care for places provides a context and comparison it is essential for a sense of place" (Relph, p.80 1976). Relph's theory arises upon contemporary urban problems. The concepts of Lack of Place imply not only a lack of care for places, but also an intrinsic will that is in need of a place, and transformations of this will can be observed throughout history. If the problem of Place could be conceptualized through such a comprehensive approach, it would be possible to observe a Lack of Place even in pre-historic settlements, and it is for this reason that this thesis does not use the concepts of Placelessness (Relph, 1976), Non-places (Augé, 1995) and Loss of Place (Norberg-Schulz, 1979). In contrast, in this thesis, the Lack of Place is more than a pessimistic, realist ethos,[22] having been started out of a desire for place-making in the natural environment. In other words, the roots of the theory of Lack of Place go as deep as the theory of Place.

Mayer Spivack was one of the first people to see that a Lack of Place is a part of an archetypal place (1974), identifying Lack of Place as a **deprivation of environmental settings**. The concept of archetypal setting deprivation is defined as a psychological explanation of lack. According to Spivack, the theory of Place consists of archetypal places, setting deprivation, and the critical confluence of man and environment. Lack of Place is an environmental "deprivation [that] results when behaviors at the critical confluence are blocked – because environments are archetypally inadequate" (Spivack, p.33, 1974). In other words, a Lack of Place is a result of the fragmented interaction between the human and their environment. Spivack says:

[22] Ethos is an ancient Greek word meaning position, vision, a world view, the soul of it.

> "The theory of Archetypal Place perhaps should be called the theory of whole environments. It is an attempt to identify the meaningful parts of the human environment. When this environment does not provide all settings necessary … [it] may be impaired
>
> … Such a population exists in a state of setting deprivation.
>
> Our existence as city building and city dwelling men is marked by a tragic paradox. While we aspire to build a world which is the realization of our dreams, we grope to escape from the physical tangle and social wreckage of our urban nightmare like dreamers unable to wake" (Spivack, p.33,34, 1974).

Theories of Place and Lack of Place are both theories of environment, as the two encounters in the phenomenon of Place. Spivack's approach to the theory of Place supports the claims proposed so far in this thesis. In this sense, the concepts of the Lack of Place should be examined one-by-one to carry the thesis one step forward, which will then hopefully generate a comprehensive approach and a framework for the study.

3.2.The Concepts:

The thesis reinterprets the concepts of the Lack of Place, but before expressing their original conceptual definitions, it may be helpful to clarify the nature of their reinterpretations. In this thesis, the term Non-place is used for the phenomenon, which defines the environmental setting that causes a Lack of Place. Loss of Place refers to the context of the phenomenon as it changes down through history, and is used to define the environmental process of lack. Placelessness is a result of the phenomenon, and describes the inauthentic attitude of place-making in design while referring to meaningless environmental settings. This thesis will benefit from their prominent contributions to the theory of lack, but the author will take the theory one step further by reinterpreting those concepts.[23]

Each concept defines Lack of Place on a different component of the place identity. Non-place describes a lack of space (physical attributes); Loss of Place refers to a lack

[23] Reinterpretation is a part of the phenomenographic research approach. The reason this process is included in the study is explained in chapter 4

of context; and Placelessness describes a lack of meaning. The experience component of place identity is, however, left out, and no conceptualization can be found in literature to identify the entire phenomenon[24].

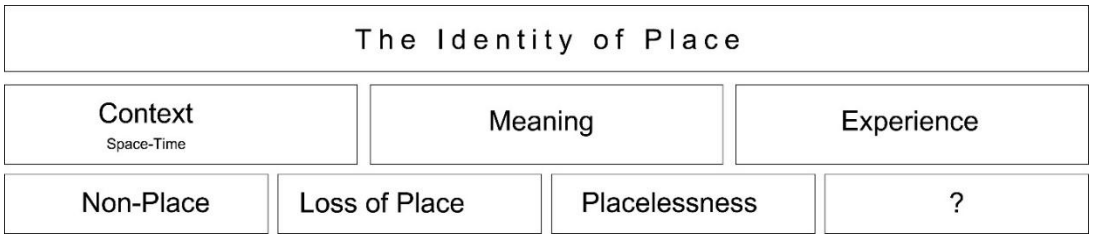

Figure 3.2: Reinterpretation of Concepts
Source: Personal Rendering from Webber et al. 1964; Augé, 1995; Norberg-Schulz, 1979; Relph, 1976

3.2.1.Non-place:

Non-place refers to a **space**[25] that once had an identity. Previous literature contains two interpretations of the Non-place concept, by Melvin Webber (1964) and then by Marc Augé (1995). Both take a critical point of view of the mainstream design attitude in urbanism. While the first version goes against modern urbanism, the second is a critic of super modernity. In this section, two descriptions of the Non-place concept and their significance for the study are analyzed.

Webber was one of the first to introduce the concept in 1964 as a criticism of modern architecture and urbanism, being unhappy with the traditional approach to urban design and planning. His critical research upon Christaller's Central Place Theory is an outdated research; yet his grand perspective has been inspiring, giving a main course on the theory of lack of place. According to him, "Seen in a communications context then, the urban settlement is far from being a unitary place" (p.120, 1964). In other words, urban places have become fragmenting, and the physical settings of the

[24] E. Relph (Placelessness) might make an explanation from the side of the experience component in place identity, but his explanation has been subject to criticism (both in literature and also in Chapter 2.2.4 of this thesis - The Sense of Place). His description made an odd explanation for the experience component in place identity, and so this thesis searches for its own explanation.
[25] Space would mean the physical settings of the built environment.

old context are being lost day by day. The abstract representation of Non-place as an urban realm constitutes the fundamental philosophy behind the theory of lack, as seen in the Figure 3.3. below. However, Webber's theory of Non-place includes a philosophy about the human-environment relationship that was presumably underestimated by the following theoretical frameworks.

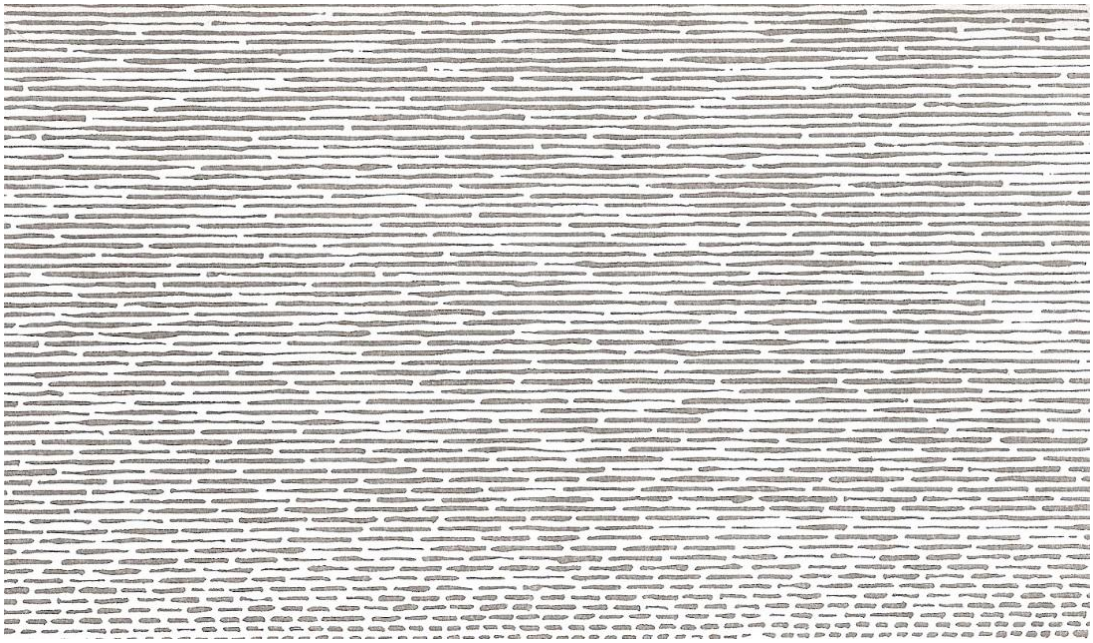

Figure 3.3: Abstraction Representation of Non-place Urban Realm. The bars represents spatial patterns of urban places. History is represented as vertically extending.
Source: Webber et al. p.119, 1964.

In Webber's approach, the history of urbanism is the story of man's search to ease human interaction, in essence. "For it is interaction, not place that is the essence of the city and of city life" (p.147, 1964). The place is where human interaction is fruitful. On the other hand, every urban environment needs a non-urban environment to feed itself, and that is referred to as regional territory or hinterland.[26] The built environment, where interaction is not fruitful, is identified as Non-place, although Webber emphasized that non-places have been increasing in the urban territory as a result of the odd understanding of urban place. He suggested that urban places should be

[26] It should be remembered that the city had been thought of as an organism until the 1960s. This is a first generation criticism for modern urbanism.

considered an interaction mechanism rather than fields for settling and areas for distribution activities. According to him, "being in" a place, is not the essence of existence in today's urbanism; the essence of place is rather the interaction.

> "… the idea of city, the idea of region, and the idea of community have been traditionally tied to the idea of place …
>
> … But it is now becoming apparent that it is the accessibility rather than the propinquity aspect of 'place' that is the necessary condition" (Webber, p.108, 109, 1964).

In this respect, "spatial distribution is not crucial determinant of membership in these professional societies, but interaction is" (Webber, p.110, 1964). According to Webber, the spatial distribution of land uses and territorial separation creates a Lack of Places in the urban realm. He identified this as a "placeness environment", which is created by traditional metropolitan planners who are obsessed with separating and distributing the urban field (p147, 1964). Webber stated that if, and only if, planners and designers grasp the idea of place as an interaction can they hope to resolve the problems of contemporary places. For this reason, he proposed a trichotomy to comprehend the urban realm, according to which, the urban place should be handled as:

> "Human Interactions: Spatial flows of information, money, people and goods
> Physical Plant: Locations of physical channels and of the adapted spaces that physically house activities
> Activity Locations: Locations of activity places" (pp. 96-103, 1964).

Second, Augé[27] (1995) was likely inspired by Webber's (1964) concept of Non-place, although there were some minor differences between the two author's conceptualizations. In general, Augé reinterpreted Non-place in a more pragmatic way to identify the diseases of super-modernity. While Webber's description of Non-place was not formulated explicitly, Augé gave exact definitions. According to him, shopping malls, motorways, airport lounges, hotels, and in front of TVs and computers are Non-places. Augé defined Non-places as anthropozemic (Non-human)

[27] Even though Webber's work preceded Augé's book, no references were made to Webber in Augé's texts.

environments. Unlike Webber, Augé's anthropological approach provides a particular means of clarifying the distinction between places and Non-places. In brief, the sense of Non-place is that one feels at the same time both nowhere and everywhere.

> "The hypothesis advanced here is that super modernity produces non-places …
>
> … The distinction between places and non-places derives from the opposition between place and space" (Augé, p.p 78-79, 1995).

According to Augé, Non-places are a result of super-modernity, meaning that his description of Non-place is part of the definition of super-modernity. Augé used "Supermodern to express its essential quality: excess" (p. 29, 1995), explainable by three forms of excess. These are excess of time, excess of space and excess of ego, and the definitions of these three forms of excess resemble closely the results of Webber's trichotomy. Augé identified probably the result of Webber's trichotomy on the urban realm in a more pragmatic way. First of all, an excess of "time stems from **the overabundance of events** (overabundance of Webber's Activity Locations) in the contemporary world" (Augé, p.30, 1995). The second, excess of space, refers to **spatial overabundance** (overabundance of Webber's Physical Plant). Spatial overabundance has been shifting our spatial parameters to allow us to survive in crowds, and has been subverting our collective consciousness to space. As a result, "we have to relearn to think about space" (Agué, p.36, 1995). Excess of ego creates **an individualization of references** (overabundance of Webber's Human Interactions), and is a result of the first two. Consequently, "super-modernity (which stems simultaneously from the three figures of excess: overabundance of events, spatial overabundance and the individualization of references) naturally finds its full expression in non-places" (Augé, p.109, 1995).

In brief, Webber did not just contribute the term to the theory, in that he also emphasized Non-place as a product of building history. He stated that Non-places were increasing in modern urbanism, and half a century later, Augé introduced the same conceptual framework to criticize the places of super-modernity. Accordingly, Webber's conceptualization would seem to be more sophisticated, although Augé's

conceptualization could be more practical in empirical researches. That said, both fall short of clarifying the entire phenomenon. But Why? At first, Webber and Augé used the same word for identifying the phenomenon as a result of modern urbanism or super-modernity that creates conceptual contradiction. To add, Non-places are not a sudden phenomenon resulting from a certain circumstance. Second, the concept makes a superficial dictation of the definition, and in turn, a place may be a place or a Non-place. However, as stated previously, some places are more place, some places are less. A place may be a place for one person, and a Non-place for another. The Non-place conceptualization fails to clarify the phenomenon of lack as a historical progress, and accordingly, this thesis prefers to use Non-place to define the lack of a space component in place identity. Non-place is the name of the environmental setting in the event of place deprivation.

3.2.2.Loss of Place:

Loss of place results from a loss in the **context** of place identity, as introduced by Christian Norberg-Schulz in early 1970s. Loss of Place and phenomenon place have been explained as parallel concepts. Like Webber, Christian Norberg-Schulz also criticized the modern architecture that emerged after World War II, and bemoaned the loss of the communicative role of the designer in contemporary the urban landscape in the "international style" (p.126, 2006). Indeed, he emphasized what had been lost was the quality of the everyday life-world. According to Norberg-Schulz:

> "After the second world war most places have been subjected to profound changes. The qualities which traditionally distinguished human settlements have been corrupted or have got irreparably lost. Reconstructed or new towns also look very different from the places of the past ...
>
> … The character of the present day environment is usually distinguished by monotony" (Norberg-Schulz, p.189, 1979).

Norberg-Schulz has conceptualized the Lack of Place in a more sophisticated way than Augé. His main contribution was his handling of the problem from the side of the relationship between man and environment, suggesting that a Lack of Place is an

"environmental crisis" (p.190, 1979). Hence, his term not only captures Non-places, but also renders the historicity of location, and this was why he described places as having their own *Genius*. The essence of place lies in preserving the *genius* of the location, in other words, the *Stabilitas Loci*. In order to avoid any misunderstanding, it should be stated that *Stabilitas Loci* would not indorse the suggestion that "place should not transform". The *Genius Loci* is a dynamic concept that has a *Stabilitas Loci*, and this *Stabilitas Loci* is becomes richer day by day after each and every generation experiences the place. According to Norberg-Schulz:

> "The genius loci always requires new interpretations in order to be able to survive. It cannot be 'frozen', but must be understood in relation to present requirements. Such a dynamic concept for the term 'place' is the sole foundation for creative adaptation to an existing setting" (Norberg-Schulz, p.3, 1979).

Loss of place means the loss of *character of a place,*[28] as the essence of that place. In other words, it is the loss of *Stabilitas Loci*. Norberg-Schulz classified indications of Loss of Place under two categories: those on the side of human psychology; and those on the side of environmental settings[29]. These can be referred to respectively as a loss in the identification of human, and a loss of orientation in the built environment.

First, in a Loss of Place, the loss of identification, the *Genius Loci* comes from the gathered things and humans in a certain physical formation, and this formation resides in the nature of the thing itself,[30] although alienation hinders gathering. "Alienation is in our opinion first of all due to man's loss of identification with the natural and man-made things which constitute his environment" (Norberg-Schulz, p.168, 1979). Humans are social beings, and the urban place is constructed through social experience. Meanings are gathered within things according to the particular structure of the experiences that are specified by the nature of the thing itself. If alienation

[28] It is worth recalling here Norberg-Schulz's basic description of place identity: "structure + meaning = character". For more information, See The Identity of Place.
[29] In fact, these two are interrelated with each other.
[30] In other words, this is called symbolization. As stated previously, it is one of the main steps in place-making.

hinders such a gathering, places would be unable to preserve their *Genius*. In this respect, **alienation** is one of the main reason behind such losses of place.

Second, Loss of Place is a loss of orientation in the built environment. Norberg-Shulz identified two sets of symptoms related to the loss of orientation in the built environment. These are:

- **Private is inside. Public is outside**. This is the fundamental domain of orientation in the built environment. "In the city a clear distinction between private and public domains is necessary" (Norberg-Schulz, p.194, 1979). The basis of the context of the urban form is the behavioral hierarchy of the environmental setting. Otherwise, the urban form will be devaluated (Norberg-Schulz, 1978). In Lynchian terms, the urban form must have a *legible* and *imageabile* in character.
- **Stereotypic places** provide a monotonous environment. "Lack of character implies poverty of stimuli" (Norberg-Schulz, p.190, 1979). Urban places lose their meaningful composition within the geography to the earth, land and sky. One exists nowhere in that built environment. These symptoms, in general, indicate a loss of place.

In brief, Norberg-Schulz's Loss of Place provides a more sophisticated framework than that of Webber and Augé's Non-place. Norberg-Schulz claims that his concept has a contextual sophistication, and that a Loss of Place started to be seen after World War II, although any phenomenon related to the relationship between man and environment should have deeper roots than this (especially with phenomena related to place). Furthermore, Norberg-Schulz failed to clearly identify the "whats" and "hows" of the relationship between the *Stabilitas Loci* and the *Genius Loci*. How much transformation over how much time, would not lead to the *Stabilitas* of that location being damaged. What components constitute *Stabilitas Loci*? These are the problems of Norberg-Schulz's theory that are not adequately resolved. That said, this thesis benefits from its contextual framework, in that his grand framework is better

established than the other concepts explained by the dichotomy of *Genius Loci* and *Stabilitas Loci*. Accordingly, this thesis prefers to use Loss of Place to define the lack of context (Space-Time) component in place identity.

3.2.3.Placelessness:

Placelessness is the foremost description of the Lack of Place, referring to the loss of meaning in the context of place identity. This famous term was introduced by Edward Relph in 1976, and provides one of the most comprehensive frameworks related to the Lack of Place, comprising the concepts of Non-place and Loss of Place.

Placelessness is structured as a critique of the modern *production of space*[31] in urbanism. "Commodification and devaluation of place, the roots of placelessness lie deep in globalization, which generates standardized landscapes and inauthenticity" (Arefi, p. 184, 2007). According to Relph, the inauthentic attitude adopted in placemaking has been the main cause of the Placeless environment. Placelessness is an environmental phenomenon, being simply a different order in the built environment. It carries a new consciousness of Place, bringing its own ontology, and this ontology produces its own manifestations and a new praxis of space. It constitutes a new framework for the man and environment relationship. In Relph's words:

> "Placelessness is an attitude and an expression of that attitude which is becoming increasingly dominant, and that it is less and less possible to have a deeply felt sense of place or to create places authentically …

[31] This was not expressed clearly in Relph's texts. Henri Lefebvre's famous trio formed the main framework of Relph's headings.

> "**1.Spatial Practice:** Which embraces production and reproduction, and the particular locations and spatial sets characteristic of each social formation.
> **2. Representations of Space:** Which are tied to the relations of production and the 'order' that those relations impose, and hence to knowledge, to signs, to codes and to 'frontal' relations.
> **3. Representational Space:** Embodying complex symbolism, sometimes coded, sometimes not, linked to the clandestine or underground side of social life, and also to art (which may come eventually to be defined less as a code of space than as a code of representational space)" (p.33, 1974).

> This inauthentic attitude of placelessness is now widespread – to a very considerable degree we neither experience nor create places with more than a superficial and casual involvement" (Relph, p.80, 1976).
>
> "Placelessness describes both an environment without significant places and the underlying attitude which does not acknowledge significance in places. It reaches back into the deepest levels of place (by) cutting roots, eroding symbols, replacing diversity with uniformity and experiential order with conceptual order" (Relph et al., p.121, 2006).

An inauthentic attitude to an urban place creates no sense of Place, meaning "no awareness of the deep and symbolic significance of places" and "no appreciation of their identities" (Relph, p.82, 1976). There are two main reasons behind the inauthentic attitudes to Place, being the unselfconscious inauthentic attitude; and the selfconscious inauthentic attitude. First, the unselfconscious inauthentic attitude is referred to as **Kitsch**, in which "places [are] treated as things" (Relph, p.83, 1976), and are mass produced, created in a stereotypic manner to be consumed by the public. For instance, the meaning of home is weakened by mass housing, in that it may be exchanged, bought or sold; and tourism is another example, given its proposing of nowhereness. It is a stereotypic form of escape from the monotonous urban environment. The second form of inauthentic attitude is the selfconscious form, referred to as **Technique**. In this attitude, "places [are] treated as (uniform) spaces" (Relph, p.87, 1976). Places are planned using uniform rules according to their functions and land-uses, and the production of Place is manipulated by mass-produced public interest, while the *Genius Loci* is disregarded. For example, in such an attitude, urban space is developed for big businesses, such as industrial zones or sub-utopic housing developments, or through the creation of giant structures or skyscrapers with huge destructions. According to Relph, both the kitsch and technique attitudes produce placelessness. These attitudes are seen to be interwoven with each other on placeless urban geographies, as seen in the examples above.

Placelessness describes both the name of the placeless environment and the design attitude in that environment, although Relph also tried to identify the manifestations of Placelessness, following on from Augé and Norberg-Schulz, categorizing them into five groups that paralleled the representations of Placelessness. Relph argued that

urban places were dominated by the representations of Placelessness that had been transmitted by the media and systems. According to him, placeless geographies are powered by **mass communication**, **mass culture**, **big businesses**, a **powerful central authority** and **the economic system** (Relph, p.120, 1976). The first two of these create the kitsch attitude, while the last three create the technique attitude.

First, the manifestations of Placelessness due to **kitsch** (mass communication and the mass culture) are non-places, other-directed places and uniform places. Of these, non-places are roads, railways, airports, and any other infrastructure that sustains informal or technical (experience) interactions. As stated previously, non-places are anthropozemic (Non-human). Other-directed places, on the other hand, are places produced for an intentional purpose, such as tourism, entertainment, commerce, housing, industry etc., and so also cover synthetic or pseudo-places. The urban geography is reduced and homogenized to a certain land-use (Relph, p.93, 1976). An advanced form of homogenization is observed in pseudo-places in the form of *disneyification*, *museumisation*, *futurization* and *subutopias*, and in these synthetic places, man-made symbols go beyond the natural ones. "It is made up of a surrealistic combination of history, myth, reality and fantasy that have little relationship with the particular geography" (Relph, p.95, 1976). Disneyification refers to the production of places solely for entertainment, such as grand amusement parks and theme parks. Museumization is a particular form of disneyification,[32] being the replication, reconstruction, preservation or idealization of historical symbols in a particular place. Futurization is a trial to produce future images, predicted realities, dreams and hopes go beyond the reality of the geography in urban design and architecture. Subtopias are man-made environments in which to live, and are one of the most observed types of placeless environments, including thematic housing estates and concept hotels/shopping malls/places. Finally, uniform and standard places are produced when homogenization has become the rule in the production of urban place. New districts, towns, industrial and commercial developments, roads and airports are inevitably

[32] The Preface to Relph's book, *Disneyification* and *Museumisation,* contains Peter Cave's contribution to the theory (1976).

generated in a uniform way, and so Placelessness is inevitable in such a stereotypic and monotonous environment. In fact, kitsch becomes the technique in urban planning.

Second, the manifestations of Placelessness through **Technique** (big businesses, powerful central authority and the economic system) are formlessness, place destruction and finally, impermanence. Big businesses produce formless geographies, and in some ways, particular forms of subtopia create formlessness. Giant urban formations such as skyscrapers, mega-structures and industrials estates/parks exploit space in urban geographies, and in fact, giant constructions need giant destructions in an urban place. Lewis Mumford referred to this kind of destruction as *Abbau* (1961), meaning unbuilding, anti-place, and this kind of destruction needs a powerful central authority that has a technique attitude towards space. Such destructions may also be created by wars or acts of war, such as World War II, the Gulf War or Hiroshima, and so on. Finally, the system itself creates impermanence and instability in places. Places undergo continuous redevelopment, and urban places in central business districts have always been under pressure to transform. The basic result of this compulsion for change is the abandonment of places, such as particular buildings in CBDs, land-uses and anywhere in the urban field. Alternatively, it could involve the collective abandonment of a city, state or a country due to war.

In the end, Relph's term "Placelessness" emphasizes the loss of meaning in the identity of a place. According to him, "the meanings of places have become as ephemeral as their physical forms" with the modern production of space (place) (p.144, 1976). He carried the theory of lack one step further by identifying the manifestations of Placelessness, while also underlining the inevitability of Placelessness. Although the answer to the inevitability of Placelessness was unclear in his texts, he conceptualized both Place and Placelessness as essential parts of our modern urban context. According to him, "placelessness is not merely in context in these present-day landscapes – it is an essential part of them and a product of them" (Relph, p.139, 1976). Contrary to his detailed urban analyses, Relph's theory suffers from a lack of conceptual

sophistication, and it does not explain how experience of place identity has been transformed.

The experience of Place is something that has been continuous in history, rather than being identified within the duality of the authentic or inauthentic. In some way, manifestations of Placelessness have also a place attribute, and may be neither place nor placeless. Relph is unable to answer the question of how Placelessness has transformed throughout the history of the relationship between man and environment. Despite establishing a very inspirational theory, his conclusion about the inevitability of placelessness was not sufficiently sophisticated to complete his main framework.

Table 3.1: Placelessness

<table>
<tr><th colspan="3">PLACELESSNESS</th></tr>
<tr><th>1. Manifestations of Placelessness
"Spatial Practice"</th><th>2. Media & Systems Transmitting Placelessness
"Representations of Space"</th><th>3. Inauthentic Attitude to Place
"Representational Space"</th></tr>
<tr><td>Other Directedness in Places:
• Landscape made for tourists
• Entertainment districts
• Commercial strips
• Disneyfication (Synthetic or Pseudo-places)
• Museumisation (Synthetic or Pseudo-places)
• Futurist Places</td><td>Mass Communication and nodes of diffusion of mass attitudes and fashions of kitsch.</td><td rowspan="2">Kitsch: Unselfconscious Inauthentic Attitude
"Places treated as <u>things</u>"</td></tr>
<tr><td>Uniformity and standardization in places:
• Instant new towns and suburbs
• Industrial commercial developments
• New roads and airports, etc.
• International styles in design and architecture</td><td>Mass Culture of dictated and standardised values; maintained by but making possible mass communication.</td></tr>
<tr><td>Formlessness and lack of human scale and order in places:
• Subtopias
• Gigantism (skyscrapers, megalopolis)
• Individual features unrelated to cultural or physical setting</td><td>Big business and multi-national corporations: these encourage standardisation of products and needs to ensure economic survival, and they supply the objects of kitsch through the application of techinique.</td><td rowspan="3">Technique: Selfconscious Inauthentic Attitude
"Places treated as <u>spaces</u>"</td></tr>
<tr><td>Place Destruction (Abbau):
• Impersonal destruction in war (e.g. Hiroshima, villages in Vietnam)
• Destruction by excavation, burial
• Destruction by expropriation and redevelopment by outsiders (e.g. urban expansion)</td><td>Central authorities: These encourage uniformity of places in the interests of efficienct and through the excercise of a uniform power.</td></tr>
<tr><td>Impermanence and Instability of places:
• Places undergoing continuous redevelopment (e.g. many central business districts)
• Abandoned Places</td><td>The economic system: the abstract system, dominated by technique, which underlies and embraces all of the above.</td></tr>
</table>

Source: Adapted from Relph, pp.118-121, 1976

3.2.4.Other Narrations on the Lack of Place:

Lack of Place is a critique on the notion of Place, related to the human dissatisfaction with the built environment. Lack of Place is a growing branch in Place theory from the inverse side of the phenomenon, and raises a grand problem for all human and environment sciences. Since the mid-20th century, several authors have discussed the problem, and have come up with different descriptions and concepts, although all complained about the Lack of Place in different ways. In this regard, the Lack of Place

is not limited to the main concepts expressed above, as this thesis must mention also other narratives related to the Lack of Place found in literature. While these may not be as comprehensive as Non-Place, Loss of Place and Placelessness, they make remarkable contributions to the theory.

First, John Ruskin described the three threads of architecture in his 1849 book *The Seven Lamps of Architecture*, being structural deceits, ornamentation and machine-made things in architecture (Ruskin, p. 32, 1907). Ruskin complained about the "absence of meanness" in architecture (pp. 32-34), and this was one of the naive forms of Placelessness narrated on an architectural scale. He explored the problems at an architectural scale, just as Relph explored problems at an urban scale 100 years later. His remarkable work provides evidence that the sense of the Lack of Place existed prior to Modernism and before World War II.

Second, after the 1961 CIAM Congress, Sigfried Giedion said: "Contemporary architecture is regarded by some as a fashion and many designers who had adopted the fashionable aspects of the 'International Style,' now found the fashion had worn thin and were engaged in a romantic orgy" (p.xxxii, 1971). He referred to fashion as playboy-architecture: "… jumping from one sensation to another and quickly bored with everything" (p.xxxii, 1971). He made a detailed content analyses from history, and then drew attention to the transforming contextual framework between the human and the environment. In short, Giedion was investigating the Lack of Place. Following in the footsteps of Giedion, this thesis will make a revised content analyses from history.

> "Crowded cities have perforce led to a bankruptcy of life …
> … There is universal agreement that the values lost to our period must be restored: the human scale, the rights of the individual, the most primitive security of movement within the city" (Giedion, p.xxxiv, 1971).

Likewise, Rob Krier used the term "The erosion of urban space" when referring to the Lack of Place (p.64, 1979), discussing the loss of context and meaning in place identity within the urban environment. He made a study about the transforming principles in town planning that were occurring parallel to the changes in the production method of

places since the French Revolution. Krier was able to establish a relationship between the historical and morphologic side of the problem, using the term the *erosion of urban space*. According to him:

> "At some moment in time there occurred a cessation of meaningful artistic production and a catastrophic decline in all sense of value. Standards of craftsman were abruptly terminated. Collective endeavor declined. Society atomized and the individual alienated" (p.7, 1979).

The same feeling holds true for Richard Sennett, who referred to the settled feeling of Lack of Place as "the modern fear of exposure" (p.19, 1992). Here, exposure connotes a deprivation of face-to-face interaction, and in this regard, Lack of Place is a problem of place experience. Mayer Spivack (See the section entitled "The Lack of Place") and Richard Sennett were the first authors to complain about the loss of experience in place identity. Sennett's particular emphasis was on modern places that are "empty clichés[33] mechanically reproduced" (p.215, 1992), and he also spoke about the loss of the public realm in his book "The Fall of Public Man" (1977). According to him:

> "Through repetition, the viewer becomes engaged in these placeless persons, however, precisely because the anthropological clues are lacking …
>
> … In sum, there is a consciousness of material objects which can resonate to the consciousness people have one of another in cities … This space of exposure was set in a certain kind of time, which we called a narrative space to indicate that the productive experience of complexity does not just happen in a city but needs to be organized as an unfolding experience, much as the complexities of a novel are unfolded" (pp. 213-217, 1992).

Finally, literature highlighted a systematic Lack of Place identity. Lack of Place is identified as an environmental crisis (Relph, 1976; Norberg-Schulz, 1979; Sennet, 1992; Arefi, 1999; Larice & Macdonald, 2006) in the relationship between the human and the environment. On this matter, Jon Lang blamed the rise of Post-Modernism, claiming, "… with the rise of Post-Modernism has come an increased concern with the symbolic nature of the built environment" (Lang, p.9, 1987). However, there is little physical evidence of a systematic lack in literature on the Lack of Place. Modernism, and then Post-Modernism, became increasingly "obsessed with the creation of new

[33] Richard Sennett somehow used the same description as Relph. Clichés may refer to Kitsch; and mechanically Reproduced may refer to Technique.

symbolic forms" (p.11, 1987). The environmental crisis of Place has been becoming more prevalent due to the informal experiences in the urban environment.

Eduardo Lozano stated that human experiences are becoming increasingly aspatial (p.191, 1990), claiming, "We – People – have lost our emotional contact with people, places, and nature" (Lozano, p.192, 1990). In fact, communities have lost the symbolic richness that they established with their surroundings, and in this regard, "Urban space is homogenized, banal" (Lozano, p.223, 1990). Lozano discussed the Lack of Place using the terms *erosion of symbols* and *banalization* of the urban space, and these shifting experiences were also identified by Lineu Castello, who stated that "place making and place marketing are in the generation of the place of cloning" (p.156, 2010). Furthermore, *place theming* is another concept used in literature (Carmona et. al, p.128, 2003), buy which invented places are cloned and marketed using different themes. According to Castello, "The hypothesis is demonstrated that, by absorbing the information conferred by phenomena that stimulate urbanity, the new cloned places can be absorbed as new places of urbanity" (p.229, 2010). This absorption is also creating the Lack of Place.

In summary, it can be observed that Lack of Place is a phenomenon that has been subjected at every stage in history. Several authors have complained about the Lack of Place via different manners indifferent times periods, still somehow identifying the same arguments. In fact, the Lack of Place is used in criticisms of the notion of Place, which has been transforming along with the phenomenon of the Lack of Place. "These transformations have highlighted placelessness and non-places as the epitome of the current practice and meaning of place" (Arefi, p.191, 1999). That said, they are also our contemporary places. What was "invented"[34] as a non-place may now be a place. In this respect, any definition of Placelessness or Non-place would fall short of providing an understanding of the entire phenomenon. Accordingly, the theory of Lack of Place needs reconsideration.

[34] The term refers to invented places, including pseudo-synthetic places, throughout history.

3.3.The Critiques:

Investigations into the Lack of Place are both experiential and psychologic in nature. Lack of Place is largely determined by either empirical data that can be observed in the built environment, or from a sense of insideness/outsideness. In fact, the phenomenon of lack corresponds to a lack of coherence between the experiential and the psychological world of the individual(s), and so empirical theories would not last long without a grand phenomenological explanation. In this respect, criticisms of the concepts of the Lack of Place may be categorized under two main headings:

- Lack of *contextual (Space – Time)* depth in empirical data; and
- Lack of conceptual sophistication in theories.

To begin with, there is a **lack of contextual depth** in the concepts related to Lack of Place. Theories of Lack of Place do not propose a unified (space-time) context, but rather analyze Lack of Place in space and in time separately. For instance, Webber's Non-place results concerned modern urbanism after the 1960s, while Augé's Non-place findings were from super modernity after the 1980s. Norberg-Schulz blamed "the international style" after World War II, while Relph's Placelessness sought to comprehend a limited period in history that started with the Industrial Revolution. That said, if the Lack of Place is a result of the relationship between man and his environment,[35] it should have existed before Modernism, the Industrial Revolution and World War II; accordingly, these concepts related the Lack of Place should have made their conceptualizations beyond the time, rather than starting at a specific point in history.

The manifestations of Lack of Place are based upon an eclectic array of empirical concepts that are defined upon a distinct built settings but, creating generalizations on the empirical situations is a reductionist approach. For instance: non-places include shopping malls, motorways, highways, airport lounges, hotels and virtual platforms,

[35] Webber (1964), Augé (1995), Norberg-Schulz (1979) and, Relph (1976) explain the lack of place in terms of the man-environment relationship.

and loss of Place results from stereotypic places being produced under the influence of modernism. Relph's manifestations of Placelessness are based on the classification of stereotypic places, among which are *other-directed places*, *museumisation*, *disneyfication*, *futurization*, *gigantism*, *sub-utopias*, *abbau* and *abandoned places*. That said, those places may not be considered placeless for others, and could actually be seen as places of the new generation throughout the historical *context*.

Furthermore, there are a number of misunderstandings about the basics of phenomenology that are related to individual differences, and these differences have been laregely overlooked in theories of lack. The thesis claims that experience component in place identity has been disregarded by the authors of the Lack of Place.

> "This criticism misunderstands the basic phenomenological recognition that there are different dimensions of human experience and existence that all must be incorporated in a thorough understanding of human and societal phenomena. These dimensions include: (a) one's unique personal situation – e.g., one's gender, physical and intellectual endowments, degree of ableness, and personal likes and dislikes; (b) one's unique historical, social, and cultural situation – e.g., the era and geographical locale in which one lives, his or her economic and political circumstances, and his or her educational, religious, and societal background; and (c) one's situation as a typical human being who sustains and reflects a typical human world – e.g., Relph's claim that place is an integral lived structure in human experience" (Seamon & Sowers, p. 48, 2008).

Second, there is lack of conceptual sophistication in the theories of Lack of Place, on that they propose dialectic opposites such as Place or Non-place, distinctive or sameness (stereotypic), insideness or outsideness, place or placeless, authentic or inauthentic, and rootedness or mobility (Seamon & Sowers, p. 48, 2008). According to Seamon and Sowers, another major weaknesses in the theory is its lack of conceptual sophistication, particularly in its straightforward use of dialectical opposites as a way of conceptualizing place experience (p. 48, 2008). In truth, the distinction between Place and Non-place/Placelessness would not be so clear, and in fact, somewhere are more place, somewhere are less. Non-places for one person may be places of others. There should be no dialectic opposites in experiential phenomenon. "Place and Placelessness offers no clear answer, but it does provide an innovative language for thinking about the question" (Seamon & Sowers, p. 49, 2008).

Following the critiques above, the thesis needs to put forward a grand theory for the Lack of Place. Seamon argues that "… the place identity is important to understand the nature of Place but is complemented by other modes of relationship that together help clarify the complexity and richness of place and place experience" (p.3, 2012). The grand theory is hidden behind the identity of Place, and what is missing in the theories of lack is that they are not conceptualized according to the experience component of place identity. The way Place is experienced has also been transforming, evolving and even losing. Relph has tried to classify several degrees of insideness and outsideness, and made a significant contribution to the theory, although his framework also needs revision.

3.4.The Essence of Lack:

Indeed, the above authors speak about more or less same phenomenon, which is identified here as the Lack of Place, and will be investigated as such. Furthermore a grand theory will be put forward related to the phenomenon, taking the past critiques into account. To this end, the essence of lack should be investigated. As stated previously, Lack of Place refers to a lack of any component in place identity, although lack is also "a counter effect of desire" (Deleuze & Guattari, p.28, 1984).

The essence of lack is phenomenological, falling somewhere in between the psychological and experiential world of the individual. The word "lack" come from the French word "Manque", meaning "both lack and need in a psychological sense, as well as want or privation or scarcity" in a sense (From the translator's note, Deleuze & Guattari, p.29, 1984). Mayer Spivack (1974) referred to this as "deprivation", and claimed that in environmental settings and experiences, an increase in private (intimate) experiences comes with deprivation, and the same argument holds true for Deleuze & Guattari, who claim that deprivation creates doubles of reality.

> "In point of fact, if desire is the lack of the real object, its very nature as a real entity depends upon an 'essence of lack', that produces the fantasized object. Desire thus

> conceived of as production, through merely the production of fantasies, has been explained perfectly by psychoanalysis …
>
> … desire intrinsically produces an imaginary object that functions as a double of reality, as though there were a 'dreamed of object behind every real object' or mental production behind all real productions" (Deleuze & Guattari, p.27, 1984).

The sense of lack itself increases the non-spatial symbols in one's cognitive environment, rather than building them physically. It builds fantasies and dreams rather than symbolizing one's existence through physical settings. It creates latency in the affordance of the environment, and so is a dangerous sickness of mankind, and this sickness is increasing through self-stimulation. It creates a loss of reality in function, and is in an inverse relationship with place-making (*rationalization)*[36]. This inverse relationship is explained in Freudian terms as neurosis and psychosis.

> "**Neurosis:** In neurosis the ego obeys the requirements of the reality and stands ready to repress the drives of the id.
>
> **Psychosis:** In psychosis the ego is under the sway of id, ready to break the reality.
>
> **The inverse relationship**: In neurosis the object function of reality is preserved, but on the condition that the casual complex be repressed; in psychosis the complex invades consciousness and becomes its object, at the price of a 'repression' that now bears on reality or the function of real" (Deleuze & Guattari, p.133, 1984).

"The built environment might lose its meaningful symbolism" in the inverse relationship (Barlas, p.47, 2006). "Since the form of the built environment is accepted as a composition of the signs of a series of archetypal symbols, a deviation from meaningful forms would result in a meaninglessness of the built environment, albeit it might not result in neurosis" (Barlas, p.47, 2006). This inverse relationship creates placeless symbols in one's mind, and this is the essence of lack, in that it produces symbols that have no contextual representation in the built environment. Unfortunately, none of the presented theories embrace the Lack of Place from the psycho-experiential point of view, in which the experience component of place identity should be better articulated towards the theory of lack.

[36] Rationalization can be compared to Jungian Individuation, with the main difference being that individuation is an individual act, while rationalization can be both an individual and a collective act. It may go beyond self-realization to manifest also as a collective entity.

In short, the essence of lack is a result of the “loss of richness” of signs and symbols with respect to the inverse relationship (Canter, p.104, 1977). Built signs fragment into symbols, and symbols lose much of their power within the temporariness of the environment and the ephemeralness of mankind. Beyond the author’s definitions, Lack of Place also means losing the ability to experience the signs and symbols that are essentials of place identity. In this sense, there is something missing from the theories of Lack of Place, as it must be embraced as part of the experience component in place identity. In this regard, it is necessary for this thesis to carry the problem to the psycho-experiential framework in order to fix the lack of conceptual sophistication in the theories of the Lack of Place, and so leads the study to build a research on phenomenology.

CHAPTER 4

THE RESEARCH APPROACH & THE METHOD

The thesis proposes a new phenomenological framework for the concepts of Place and Lack of Place, as complementary concepts that are used to explain the relationship between humans and their environment. It can be said that Lack of Place is the main cause of the problems experienced in urban design and planning, and this has been the main factor in the choice of topic of this thesis.

Accordingly, the methodology applied in this thesis is designed to build, develop and validate the proposed phenomenological framework, with the intention of not only finding supporting evidence to validate the new phenomenological approach, but also to develop and improve the main framework of the thesis. In this way, the thesis extends the study topic through the use of qualitative research methods that are based on phenomenology.

The research method and the approach of the inquiry fall under the heading of *Phenomenography*, which relies on making ontological categorizations and coming up with new epistemological conceptions about a phenomenon. This can be considered the most appropriate method for the development, validation and testing of the new phenomenological framework related to (the identity of) Place and Lack of Place. This chapter begins with an explanation of the phenomenographic research approach, which has seen wide use in educational sciences, but will offer a new perspective for urban studies, and in the following stage, the phenomenographic research will be designed according to the requirements of urban studies. Finally, the research methods and techniques will be identified and clarified one-by-one to validate the thesis. This

chapter includes not only the research method adopted for the thesis but also the adaptation of the method referred to as *phenomenography* in educational sciences for urban studies.

4.1. The Research Approach: *Phenomenography*

Phenomenography is a qualitative research methodology that investigates human experiences and seeks to generate and describe the surrounding environment through abstract conceptions, but without disregarding the available scientific information. The research approach has an empirical and also theoretical and philosophical base. The study has a post-positivist, constructivist worldview (Creswell, p.6, 2014).

The phenomenography approach was first put forward by Ference Istvan Marton in the 1980s. Although it is seen wide use among educational psychologists, it can also be considered suitable for urban studies, in that the relationship between humans and their environment are a key subject matter in phenomenography. To the best of the author's knowledge, this is the first time that the phenomenography approach has been adopted in urban studies. There are four major points to be considered when explaining why and how the thesis is adopting phenomenography as a research approach to phenomenology.

First and foremost, phenomenography investigates **(collective) experiences** within the human-environment relationship. "It is a research to find out the collective mind about the phenomenon" (Marton, p.198, 1981). According to Akerlind, Bowden and Green, "It seems clear that the phenomenographic focuses on describing key aspects of collective experience, not the richness of individual experience, involves quite a conceptual leap in terms of action research to phenomenography" (p.78, 2005). This research approach goes beyond the realms of traditional psychological research as a result of its interest in the content of thinking.

> "Phenomenography is concerned with the relations that exist between human beings and the world around them ...
>
> Phenomenography is more interested in the content of thinking than is traditional psychology" (Marton, p. 31, 1981).

The research approach permits the investigation of the experiential leaps between human beings and the environment, and to this end, it develops an analysis based on experiences of the past and present. For this purpose, the thesis collects data from urban history, field observations, surveys and a comparative literature review. Chapters two and three contains a comparative discussion of the basic phenomenological literature related to Place and the Lack of Place in the history of the human-environment relationship, while the chapter five provides a historical research of the Lack of Place.

Second, phenomenography develops **abstract conceptions** about the phenomenon of the surrounding world, and makes **reinterpretations** of those conceptions. "Phenomenography does not make statements about the world as such, but about people's conceptions of the world" (Marton, p.31, 1986), for which it creates and categorizes a collective intellectual pool of ideas. Phenomenographers make inclusive[37] interpretations of conceptions that are already known. In fact, "Phenomenography is described as a reaction against and an alternative to dominant positivistic, behavioristic and quantitative research and as making its own ontological, epistemological and methodological assumptions with inspiration from, and similarities to, several older and concomitant traditions, without agreeing entirely with any of those" (Svensson, p.159, 1997). As explained in Chapter three, this thesis actually develops a research based on the conceptions and reinterpretations of earlier conceptions, thus reinterpreting and re-conceptualizing the identity of Place and the Lack of Place.

[37] By inclusive interpretations, I mean that the thesis will integrate the former concepts of lack of place: Non-place (Webber et al. 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976).

Third, phenomenography can be thought of as "**systematizing of forms of thought** in terms of which people interpret significant aspects of reality" (Marton, p. 177, 1981), and its descriptions are relational, experiential, content-oriented and qualitative (Marton, p. 33, 1986). The output of a phenomenographic research is systematized knowledge, and this knowledge may be used in any following researches as the basis of quantitative and qualitative data. According to Marton:

> "Phenomenographers categorize their subjects' descriptions, and these categorizations are the primary outcomes of phenomenographic research. Two issues are involved here. First, the results of phenomenographic research are the categorizations of descriptions; second, we contend that these categories are the most important result of the phenomenographic research enterprise" (Marton, p.33, 1986).

Chapter six of this thesis will present a systematized conceptual framework for the Lack of Place (The Atrophy of Place). After all the phenomenographic research and findings of critical deficiencies in literature, the thesis will set out a new phenomenological framework in the following parts based on the conceptualized system of thoughts about Place and Lack of Place. In the following stage, the systematized conceptual framework will be tested.

In the final stage, phenomenography's research technique is achieved throughout a flexible method, reffered to **context analyses** by Svensson, which provides a certain methodical flexibility (p.162, 1997). Phenomenography is a field of independent research that "investigates the qualitatively different ways in which people experience or think about various phenomena" (Marton, p.31, 1986). Designed urban places carry out lived-in experiences of communities,[38] and so in researches of urban history, field observations are one of the most common methods in a context analyses for the investigation of lived-in experiences. Context analyses are used to validate and develop a systematized conceptual framework, and they will be explained in detail on the following section in which the research method is explained. Chapters two and three provide the necessary qualitative comparative literature review for the context

[38] See section 2.2.2. Place Making: *Rationalization*

analyses, and constitute the basis of this study. In the following sections, the thesis will develop context analyses through field independent observations and a survey. The proposed phenomenological framework will then be validated and developed after the comprehensive phenomenographic research.

4.1.1 Phenomenology and Phenomenography:

The difference between phenomenology and phenomenography should be clearly defined before explaining the research design. "Phenomenology provides alternate epistemological assumptions to those adopted in mainstream psychological research" (Marton, p. 39, 1986). In contrast, phenomenography can be considered a special aspect of phenomenology, being a research approach and a methodology that looks beyond mainstream phenomenological explanations.

This difference between phenomenology and phenomenography may be best expressed with an example from physics: Force is a phenomenon in the science of physics, but the Newtonian, Einsteinian and even Quantum explanations of force have different conceptual explanations and depths, although all have scientific validity. Phenomenography investigates these various explanations about the same phenomenon, although the case is more valid for social and psychological sciences. For example:

> "Gestalt psychologists have studied how people perceive and understand phenomena …
>
> … From a phenomenographic perspective, these various schools of inquiry characterize how some particular phenomena are perceived by people ..." (Marton, p.32, 1986).

In a phenomenographic research, the findings are categorized and conceptualized, but not judged by researchers. Where possible, phenomenography proposes a new way of thinking about the phenomena in question, while this new system of thought enlarges the field of phenomenology. In sum, phenomenography is a research approach for the investigation of phenomena in phenomenology. It is a search for the logic behind a

phenomenon, and accordingly, this thesis develops a phenomenological framework with the help of phenomenography.

4.2. The Research Design:

The aim in this study is to explore place experience through a phenomenographic research, and this can be considered one of the first uses of the phenomenographic approach for in the design of an urban design and planning research.

This can be seen as an "exploratory" research into the Lack of Place (Singleton & Straits, p.68, 2005), in that it explores the concepts related the phenomenon of Lack of Place and formulates a unified theory out of the captured insights. That said, there are no explicit variables related to the phenomenon, but rather a set of conceptual categories based on empirical observations. It should be noted that these empirical observations and generalizations may lead to discrepancies between the concepts of Non-place, Loss of Place and Placelessness. To address this, as an additional aspect of this thesis, there is an intention also to eliminate these discrepancies by putting forward a new conceptual framework that takes into account also the old concepts. As a final check, the accuracy and consistency of the new conceptual framework related to the phenomenon of lack should be validated.

Regarding the context of the study, the field of research is the urban arena in which the interaction between man and his environment has been established across the entire settlement history. The study deals with the collective experience of the urban place, and so a flexible research approach is used that makes use of multiple data collection methods, based on observations, documents and surveys. In this regard, the research contains three major procedures. These are:

- (Qualitative) Comparative Literature Analyses
- **Re-conceptualization** & **Re-interpretation** of the concepts (The identity of place and lack of Place). (Hypothesis)

- **Validation** of the phenomenographic framework through qualitative research methods based on an inquiry into collective (lived-in) experiences.

4.2.1. Logical Qualitative Comparative Literature Analyses:

Within the thesis, two main logical qualitative comparative literature analyses are carried out, related respectively to the phenomenon of Place (in the second chapter) and the concepts of the Lack of Place (in the third chapter).

First of all, the research is based on a qualitative comparative literature analysis into the phenomenon of Place, during which the fundamental data set in literature is collected and analyzed. Lack of Place is structured upon the theory of Place. The aim at this stage is to reveal, compare and finding discrepancies within theories related to Place regarding the relationship between humans and their environment, for which the theories explaining the relationship between human, environment, design and place were investigated in the second chapter. This interdisciplinary, comparative literature analysis, which was carried out in order to reach a common categorization of the identity of place by examining the different types of environment, as well as components of Place, place-making, sense of place and significance of place. Throughout the research fundamental theories related to environmental sociology, environmental psychology and anthropology have been compared and contrasted. Then, the most comprehensive and advanced explanation of Place is sought for the construction of the thesis' framework. At the end of the chapter, Lack of Place is defined as the lack of any component in the place identity.

In the third chapter, the thesis presents another qualitative comparative analysis on the concepts of Lack of Place. To this end, the author has attempted to establish a framework that benefits from all contrasting points in literature. In this regard, Non-place, Loss of Place, Placelessness, and also other narrations related to the Lack of Place, have been examined, criticized, compared and contrasted. As the nature of the

phenomenographic approach, "comments [were] made concerning epistemological and ontological assumptions" (Svensson, p.160, 1997).

Following the logical qualitative comparative literature analyses established in Chapters two and three, the thesis makes a systematized description of the conceptions with additional comments, and these were found to be more consistent than the empirical generalizations. Hence, the outcome of the qualitative comparative literature analyses are ready to establish a hypothesis for further stages.

4.2.2. Re-interpretation & Re-conceptualization of the Concepts:

This research attempts to establish a new *phenomenological* plane for Place and the Lack of Place. Following the qualitative comparative literature analyses, Place is identified according to its components, while Lack of Place is explained as a loss of component(s) from the identity of a place. In the following stage, another qualitative comparative analysis was made of the concepts related to the Lack of Place. The above QCAs (qualitative comparative analyses) lead to the garnering of a systematized form of knowledge and abstract conceptions.

Accordingly, the aim in the second stage is to create a consistent phenomenological framework that can be used to make the conceptions operational through **re-interpretation** and **re-conceptualization,** taking heed of their insights. These re-interpretations and re-conceptualizations are fundamental procedures at this stage of the phenomenographic research. Singleton and Straits expressed the importance of conceptualization as follows:

> "The process of formulating and clarifying concepts, called conceptualization, is linked to theory testing and construction. This ongoing process may occur prior to any particular empirical investigation, and it usually continues through research, as theories and their constituent concepts are refined and elaborated" (p.77, 2005).

According to the Creswell, interpretation is also a key feature in a qualitative research design (p.194, 2014). During the development of this thesis, a need was identified to elaborate upon the Lack of Place by re-interpreting the existing concepts, given the

lack of conceptual sophistications and contextual depth in the existing concepts. Furthermore, the theories have also some methodologic weaknesses in the real world, in that their arguments are structured upon empirical generalizations, and so the thesis intends to improve upon them by designing a multi-validating procedure (as seen in Figure 4.1 below). In terms of research design, while the old phenomenological procedure has follows a straight route, the new phenomenographic procedure takes a multi-route to validate the thesis, and as a result, this research produces more consistent and reliable scientific knowledge. It is for this reason that the thesis adapts the phenomenography to investigate the (collective) experiences of people.

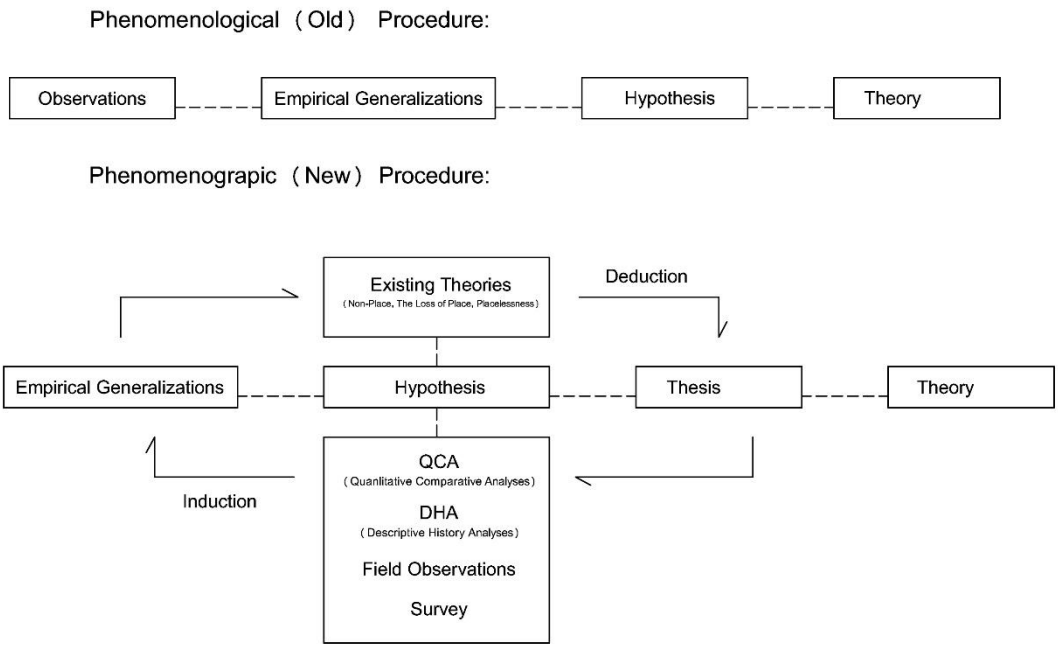

Figure 4.1: The Schema of Research (Old vs. New) Procedures
Source: Inspired by Singleton & Straits, p.77, 2005

Non-place, Loss of Place and Placelessness have been re-interpreted and refined according to their overriding features releted to the components of Place. Those concepts settled in the theory of lack of place. According to Singleton and Straits, “Concepts are abstractions [that are] communicated by words or other signs that refer to common properties among phenomena” (p.17, 2005). Consequently, this thesis reinterprets the concepts related to the loss of component in place identity, and for the

purpose of the thesis, the term "Non-place" refers to a loss of space (spatial-physical settings); Loss of Place refers to a loss of context (Space-Time); and Placelessness refers to a loss of meaning in context (Space-Time-Meaning). The crucial point in here is that these concepts are prerequisite and preconditions for each other.

Through the comparative analyses in Chapter 3, the thesis elaborates the main schema, as seen below, proposing a new phenomenological framework for the analysis of place identity. The concepts related to Lack of Place are then reinterpreted using the proposed framework, after which, the missing part is conceptualized as **the Atrophy of Place**. The analysis of Lack of Place will be elaborated with the addition of the Atrophy of Place, which refers to the loss of spatial experience in Chapter six. This scheme is not only an outcome, but also the thesis of the hypothesis in this research. In the following sections, the thesis is going to investigate scientific information in order to validate the main schema,[39] which will be improved in line with the researches.

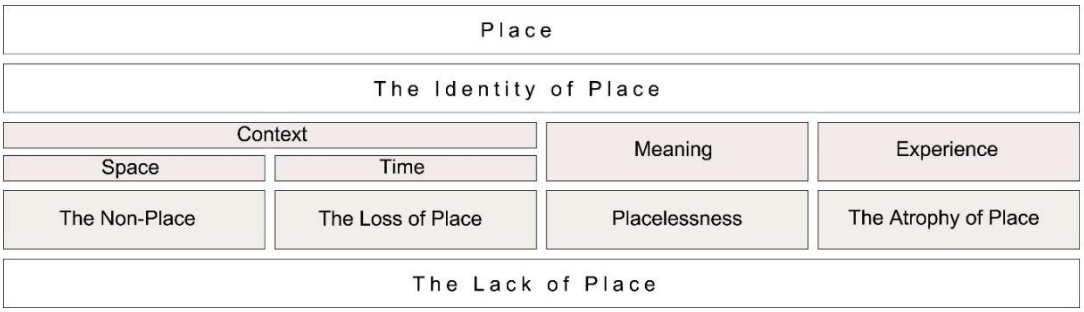

Figure 4.2: The Reinterpretation of the Concepts (Main Schema of the Thesis)
Source: Personal Rendering from Webber et al. 1964; Augé, 1995; Norberg-Schulz, 1979; Relph, 1976

4.2.3. Validation:

The validation phase is the final procedure in the thesis, in which the proposed phenomenographic framework is tested using qualitative research methods. The aim in this stage is to examine the conceptual consistency and validity of the main schema

[39] Phenomenography, as a research method, provides flexibility to the hypothesis of the thesis. The main schema of the research is not a fixed result. the hypothesis of the thesis may be expanded, modified or advanced in the following phases of the research.

of the thesis, for which the research methods will be used to test the practical competence, reliability and also validity of the main scheme (the thesis).

The applied research methods are designed to investigate (collective) lived-in experiences. Atrophy of Place refers to the loss of spatial experiences in the urban place, the prerequisites of which are Placelessness, Loss of Place and Non-place. In order to validate the thesis, the research outcome must prove that a loss has been experienced in the spatial experiences of urban place. Moreover, the research outcome must be consistent with the main schema of the thesis, and so the thesis adopts qualitative research methods for the collection and analysis of urban place experiences through historical analyses, field observations and surveys. Chapter five presents some sample narrations related to the Lack of Place in urban history that are based on Place experiences, and for this reason, the transformation of the relationship between humans and their environment will be investigated in the course of urban history. Furthermore, a search will be made on the history of urban place to find concrete evidence of the sense of Lack of Place, while the loss of (spatial) experience will need to be examined according to the main schema of the thesis. This chapter is crucial, in that whatever is lost should be in the past.

In Chapter six, the thesis validates the loss of (spatial) experiences by identifying them in two distinct ways. The thesis must first investigate Atrophy of Place by surveying the signs and symbols that sustain the relationship between the humans and the environment. To this end, the thesis first examines the empirical data gathered through field observations in the urban environment. The observational data will then be classified and categorized. The consistency of the main schema and the observational data will then be tested through a further classification. It should be noted that unclassified cases (if found) would decrease the reliability of the thesis. Second, the thesis investigates the data from the human side with a questionnaire. If the research finds evidence that is appropriate both to the human (surveys) side and environment (observation) side, and if the findings are consistent with the previous evidence, the

thesis can be considered validated. If the findings are not consistent, then the main scheme will be modified in line with the results of the research.

Obviously, the thesis makes no claim that every single phenomenon related to Place can be explained within the schema, but the main purpose here is to test the validity and consistency of the proposed framework, to permit its use in further urban studies as a basis. The author expects an improvement in the conceptual and contextual sophistication of the concepts through a reframing of the Lack of Place.

4.3. The Research Methods:

The research method is structured around the collection and analysis of data related to the (collective) lived-in experiences of the Place and Lack of Place in the urban field. The researcher describes the lived-in experiences of individuals related to the phenomenon by investigating the experience of geographies. "This description culminates in the essence of the experiences for several individuals who have all experienced the (same) phenomenon" (Creswell, p.14, 2014). The researcher collects, compares and contrasts the information coming from various sources. The data is gathered by investigating human-environment relationship. The variety of the supporting comparative data is the key instrument in this study, rather than its predecessors.

This thesis tries to put forward a more consistent and a comprehensive theory than its predecessors. In fact, the thesis implies that the research methods used in the concepts of Non-place, Lack of Place and Placelessness fail to reach the necessary conceptual sophistication still, the thesis was inspired and benefited from them a lot. In social, natural and applied sciences, a wider variety of data and methods increases the reliability of the scientific information. Scientific reliability and validity lies upon the examinations operated in different fields, by various forms of data, methods, and ontological acceptations. Hence, the research method works on various data forms by qualitative research methods to strengthen the scientific consistency of the thesis.

In this sense, variety in the applied research methods is of critical importance in this phenomenographic research, and the adaptation of phenomenographic research to urban studies itself needs revision also in the methods. Accordingly, there is a need to design various research techniques in this thesis to test the reliability of the main schema. Moreover, the consistency of the research relies on the consistency of the data collected from people and the urban environment.

Regarding the phenomenograpy approach, the research method has been designed to collect and worked on three major forms of data collected from human-relationship, namely **Documental Data**, **Observational Data** and **Experiential Data**. The research methods are going to be designed under those headings in accordance to the form of data being gathered and analyzed. Each data set has a different scientific character: Documental data provides the history and literature about the Atrophy of Place; Observational data represents the Atrophy of Place in the contemporary environment; and Experiential data structures the relationship of the data sets gathered from humans and the environment by investigating the sense of the Atrophy of Place in human beings. The data sets and their corresponding field of research are explained below.

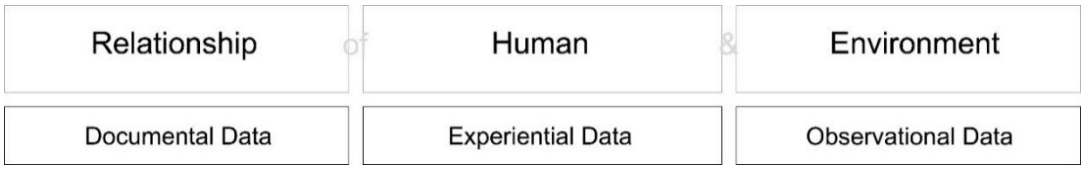

Figure 4.3: Data Sets & their Corresponding Field of Research
Source: The Research Method of the Thesis

4.3.1. Documental Data:

This research aims to modify existing theories of Place and Lack of Place, and that is why the research is collecting and analyzing the second-hand documental data in order to use them as a base information. The sources of available information used in the thesis include public and private documents (archives and written records, scientific literature, articles, personal media & records) and mass media records (photographs, documentaries, various artworks). This research benefits from historical records to

provide a comparison between past and present experiences. It follows a historicist approach to the phenomenon[40] of Place.

On the other hand, using second-hand data is a bit like wearing someone else's shoes (Singleton, Straits, p.359, 2005), in that the available documental data may seldom fit the researcher's categories, or it may restrict the creative framework of the thesis. Although collecting and analyzing documental data has scientific handicaps, the author will eliminate these by using also observational and experiential data in the following phases, by virtue of the phenomenographic research approach.

Phenomenographical research has an explorative and interpretive character in data collection. "The explorative and interpretative character of the data collection and analysis meant a radical shift from the quantitative methodological tradition" (Svensson, p.164, 1997). In this sense, this thesis criticizes the rationale behind existing theories, suggesting they may be strictly bound to the empirical observations made in the first stages, and puts forward counter arguments and different ontological explanations related to the phenomenon. Two major research methods are applied to the results of the documental data collection and analysis: a **QCA** (Logical Qualitative Comparative Analysis) and a **DHA** (Descriptive [Urban] Historical Analysis). These research techniques will help improve the main framework of the thesis, removing the need for a mainstream literature review. Those preliminary analyses are crucial to the thesis. Rather than "wearing someone else's shoes," the thesis aims to improve its framework through the use of QCAs and DHAs.

[40] That said, this research is not a historical research. It merely uses historical records to find out information about the past to validate its own framework.

4.3.1.1. QCA (Qualitative Comparative Literature Analyses):

This thesis makes two logical qualitative comparative analyses, the contents of which are stated in part 4.2.1. This section includes the technical explanations about the method used in QCA.

The QCA was devised by Charles C. Ragin in 1987, and is a data analyses technique that uses the available information at certain logical scales. A QCA begins with the collection and categorization of data sets into a format that is appropriate for the research question. The QCA continues with a simplification or reduction of the number of descriptive inferences in each category.[41] In this qualitative research the data sets are categorical inferences or concepts, which are used to establish a new theoretical basis for the following phases. This method goes beyond the preparation of a literature review by presenting a critical viewpoint of the available literature by comparing and contrasting the ontology behind the concepts. Apart from being statistical, the deterministic (logical) inferences derived from the descriptive information are the only downfall of this method.[42]

This research uses a QCA to select the best answer to the categorical descriptions of Place and Lack of Place. If a gap is identified in the logical categories, the thesis aims to come up with an explanation and terminology for the following phases (For instance, the terms “experience” and “atrophy” are result of this effort). The QCA formulated for this research established logical categories, presented in Figure 4.4.

[41] In the quantitative version, Boolean algebra is used to simplify the data, while a qualitative QCA uses a logical formal scale established according to the author’s own goal.

[42] The thesis is a collaborative research of the author and examining committee, so the qualitative logical inferences have also been expertised by the scientific committee members several times. Therefore, inferential categories established in QCA by the author has also gained scientific validity.

Figure 4.4: The Main Logical Categories of QCA used in Chapter 2 and 3
Source: Personal Rendering from Webber et al. 1964; Augé, 1995; Norberg-Schulz, 1979; Relph, 1976

4.3.1.2. DHA (Descriptive (Urban) Historical Analyses):

This thesis will investigate Place and the Lack of Place within the urban history. It provides a descriptive (urban) historical analysis that aims to examine the pragmatic framework of the thesis. The history of urban place will be documented and examined in sequences using narrative and descriptive historical approaches, and will make a search of the time component of place identity in DHA. As can be seen in the available theories above, somehow time is disregarded. However:

> "Historical analysts may also treat history (time component) itself as an independent variable in their analyses. That is, they may examine sequences of past events as a way of understanding the present. Used in this way, history represents the temporal dimension of social life rather than a particular outcome to be explained or manifestation of large-scale social change" (Singleton, Straits, p.365, 2005).

The main aim in a historical analysis is to understand past events. "For the descriptive historian, this implies establishing what happened in a facutal way" (Singleton, Straits, p.369, 2005). Historical analyses involve: "(1) a reconstruction of past events, (2) the application of a general theory to a particular historical events, (3) tests of explanations of historical events, (4) the development of casual explanations of historical patterns, (5) the use of history to understand the present, or explain how and why particular phenomena came to be" (Singleton, Straits, p.366, 2005). Accordingly, this thesis will search for manifestations of Lack of Place in urban place history, mainly by reconstructing past events according to its conceptual framework.

"Descriptive historians are interested in presenting sequences of specific, concrete events" (Singleton, Straits, p.366, 2005). The DHA is going to analyze the inferences

from historical records and compare them with each other in different time sequences. In other words, urban physical entities, as built symbols of the relationship between the human and environment in different periods, will be compared to contribute to comparative schemes. For this reason, the DHA is going to investigate the manifestations of the Lack of Place[43] in different time sequences. These sequences are investigated in four major categories, as listed below:

- The Primitive (Basic) Place & Lack of Place
- Transforming Human-Environment Relations
- Transforming Means of Space-Time
- The Lack of (Spatial) Experience

Despite its historicist point of view, this thesis regards Place and Lack of Place as complementary concepts. There should have always been a loss of experience component in place identity throughout the history. Accordingly, it is claimed in the thesis that the Lack of Place has always been there, as complementary to the sense of Place.

The DHA is designed to uncover factual evidence from past experiences, although the thesis would also like to reach a historical determination about the continuum of the human-environment relationship, if possible, in that history itself is the main reason for lack. Furthermore, there should always be a lack in every individual component of place identity, according to the irreversible component of time. Lack is the result of a function of entropy in human-environment relations. In brief, the main aim of the DHA is to uncover evidence and to examine the function of lack (of place) throughout the urban history.

[43] It is not possible to find shopping malls, internet or computers in ancient times, but thematic places, land-use policies, intended places were there as the manifestations of the lack of place.

4.3.2. Observational Data:

The research idea arose following the empirical observations made by the author. Urban decay is naked across the entire urban field. Urban researchers usually concentrate on the "urban extremes" either authentic or inauthentic parts of a city. But, urban places are where people live in an ordinary way, but are ignored during their daily routines. This thesis would prefer to study the places of ignorance within the urban environment, but how do they come about? What is the reason behind them?

Briefly, Atrophy of Place may come about as a result of the presence of places of ignorance. When symbols of the built environment are ignored, for any reason, urban places become atrophied, and the components of place identity may be ignored and lost as a result of the same process. This research aims to find out which components of place identity were ignored in the observational data research. The author will then categorize the observed database according to the appropriate criteria developed by the research methodology.

Qualitative data observations are open-ended researches that take place in an unstructured or semi-structured way (Creswell, p.190, 2014), and the researcher may engage as a participant or as a non-participant. Observational data is gathered from field observations, and in this case, the field of study is the urban arena. In this respect, an observational research is a type of field research. The urban environment is where the phenomenon is depicted. The observational data was collected by the author and several other authors, using two different data collection methods, direct observations and indirect observations, in several different urban fields. Garnering evidence related to any urban field around the world is the main difficulty faced in a field research, but why does the study require such observational data? The answer to this question lies in that fact that the thesis requires reliable observational data verified by several other data sets.

> "Field research similarly emphasizes the internal validity of the study, albeit with a different objective, to understand naturally occurring social events and processes; generalizability to other populations and settings is secondary to clarifying one's

> theoretical understanding by means of dimensional and theoretical sampling" (Singleton, Straits, p.314, 2005).

This thesis explores the visual art communities that are working on urban decay, given the ease in obtaining non-systematic information from the works of photograph and visual art communities that produce short videos and audio visual documentaries. This information set is more or less related to the idea behind the thesis, although the thesis presents them according to its framework. The author also presents field observations from his personal archive so as to avoid "wearing someone else's shoe".

Figure 4.5: A Cosmetic Trademark
Source: From Personal Archive 19.10.2016

In short, the main aim of the field research is to find out physical evidence related to the thesis own framework from the urban environment directly and/or indirectly. According to Singleton & Straits "the essence of field research: to render our daily lives socially intelligible and meaningful by keenly observing others as well as reflecting on our own experience" (p.306, 2005). Moreover, the essence of field research is collecting and examining the built signs of (collective) lived-in experiences.

The sampling in field research is "almost always involves the non-random selection of a small number of settings and subjects" (Singleton, Straits, p.312, 2005). The non-random sampling is a theoretical sampling[44] intrinsically. The selection depends on

[44] Theoretical sampling is "to sample broad analytical categories that will facilitate the development of theoretical insights. In other words, sampling is directed toward gathering information relevant to a specific working hypothesis or theory.

our categories that the thesis proposed before. As a result, the observational data collection does not only give the idea of the research but also it is an analytical method to test the thesis. What if any result of the lack of place could not be classified or explained under the headings of the main schema; it is going to be wiped the thesis down. Or else, it may transform the thesis main framework.

4.3.3. Experiential Data:

Finally, the thesis should investigate Place and Lack of Place from the human perspective with the help of experiential data analyses techniques. The main aim in this part of the study is to test the validity of the main scheme developed in the thesis according to the lived-in experiences of people in daily urban life. The thesis investigates the collective experiential phenomena that are shared in the urban field.

As for investigating an experiential phenomenon, this section will design a survey for collecting and classifying the lived-in experiences of urban inhabitants. The research concentrates on the sense of Lack of Place in the urban field, and includes a quick questionnaire and a semi-structured responsive data analysis. The main aim of the questionnaire is to find evidence of feelings of Lack (atrophy) of Place, for which it is necessary for the researcher to decode the participant's narrations according to the terminology of the thesis. Coding is one of the more remarkable stages while working on the experiential dataset, and will be used especially for decoding and classifying the answers of participants in line with the thesis' framework.

> "Coding which is a common aspect of all social research, consists of assigning concepts, symbols or numbers to categories … The codes can be and usually are established before data collection, when the survey instrument is completed" (Singleton & Straits, p.338, 2005).

In this study, the codes are the categories and descriptions given in the main schema of the thesis, and decoding the categories from the responses of the participants would be critical because the responses of the participants should be categorized in line with the thesis' framework. Otherwise the thesis framework would not meet with the results

and, it must be revised. This method is defined as relational coding. The main categories of the thesis and the descriptions used in questionnaire must be paired for a consistent. If possible, the coding should be supervised, as this will increase the validity of the research. At the end of the experiential research, the thesis will uncover what has been lost from the human-environment relationship.

A questionnaire is a systematic procedure for the gathering of information. According to Marton (1981, 1986), the primary method in phenomenography is often interviewing, being a means of collecting people's lived-in experiences. This study benefits from the use of semi-structured responsive questions in the questionnaire, in that the respondents are not informed about the distinctive categories[45] that are used in the thesis. The questionnaire includes both yes/no questions and responsive questions. The feeling of atrophy will be graded by multiple choice questions, and the results of the responsive and close-ended questions will be compared to increase the reliability of the experiential data.

The Lack (atrophy) of Place is related to the experience component of place identity. Mere clues of its existence are not sufficient, since the thesis should relate these evidence to the proposed conceptual framework. The thesis asserts that feelings of Atrophy of Place may change according to the age group, and so a cluster sampling method is adopted depending on the distinct age groups. In this regard, it is claimed that Atrophy of Place has been increasing if the lived-in experiences of one(s) have grown while getting older. This means that if an atrophy of place has occurred, older people would feel it more than younger people. Surveys are carried out in equivalent between the distinct age groups, resulting in an equal amount of data, and consequently, a fair comparison.

In short, an experiential data analysis will be designed to evaluate the sense of atrophy involving an investigation of people's lived-in experiences. The questionnaire is the

[45] The respondents are not informed about the thesis, as this is essential for the objectivity of the study.

final stage of the thesis, concentrating on the experience component of place identity, and the reliability of the term “atrophy” will be tested in this final stage.

4.4. The Schema of the Research:

The continuum of place-making[46] has two edges: Place and Lack of Place, and the human-environment relationship has evolved between these two edges. What has been lost in this relationship is the human being itself, and it can be said that the temporary human being is actually the main reason behind the Lack of Place.

Expressing such a complex continuum demands a wide variety of data sets and data analysis techniques, as can be seen in Figure 4.6 below. Each research method corresponds to a different components, techniques and research interests. Documental data corresponds to context by making QCA and DHA, and investigates the relationship between the human and the environment; observational data corresponds to the time and meaning, by a field research, and investigates environmental manifestations; and finally, experiential data corresponds to the meaning and experience components by making a survey and investigating collective (lived-in) experiences.

In conclusion, if, and only if, all the data sets validate each other within the main schema of the thesis’ framework, will the thesis be confirmed. The following chapters of the thesis detail the proposed researches, and the results are presented in the conclusion.

[46] See the following chapter for a detailed explanation of the continuum of place.

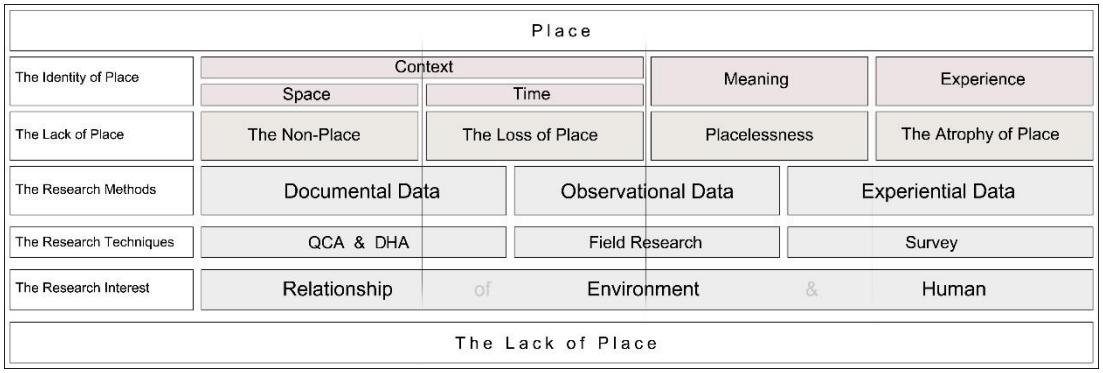

Figure 4.6: The Research Schema of the Thesis
Source: Personal Adaptation Webber et al. 1964; Augé, 1995; Norberg-Schulz, 1979; Relph, 1976

CHAPTER 5

THE LACK OF PLACE IN THE LITERATURE OF URBAN HISTORY: SIGNS, SAMPLES & MANIFESTATIONS OF THE PHENOMENON OF LACK

This thesis considers lack of place to be a problem of urban place design within the history of the human-environment relationship. This chapter presents a descriptive urban history analysis (DHA) that will serve in the structuring of a pragmatic framework for the thesis. The main objective of the DHA is find out the signs, samples and the manifestations of the lack of place throughout urban history.

Previous concepts of lack of place have no contextual depth, being assigned to a specific phenomenon in urban history. For instance, Webber's Non-Place (1964) is a response to modern urbanism, Augé's (1995) Non-Place emerged after super-modernity, Norberg-Schulz (1979) blamed "the international style" on the Second World War, and Relph's (1976) Placelessness originated from the Industrial Revolution, although all can be seen to refer to a phenomenon that originated from a break point in history. This thesis, however, claims that the lack of place has always been there, and the DHA is designed to uncover evidence of the phenomenon of lack from past urban place experiences.

The DHA is also utilized in the making of a historical determination about the human-environment relationship, if possible. Beginning with the first prehistoric settlements right up to contemporary urban space, the human-environment relationship has been evolving. This chapter makes a review of design efforts, taking a comprehensive outlook on urban history, after which it suggests a means of re-conceptualizing the

phenomenon of lack of place for further chapters. To this end, a comprehensive search will be made of design approaches, starting with ancient pre-urban settlements and culminating in contemporary urban design movements, which will help in the development of a new phenomenological framework for further studies.

5.1.The Primitive (Basic) Lack of Place:

Space is designed to make places, and design behavior is a prerequisite for lack of place (Deleuze & Guattari, 1984). The need to design a place comes put from a certain sense of lack, yet not all the designs leads to the production of a place. As it is impossible to analyze every design attempt in history, emphasis will be on the more revolutionary ones, as this will reveal clues about lack of place.

The sense of lack of place is as old as the sense of place, and place and lack of place are two facets in the human-environment relationship. The basic lack of place can be considered an attempt to rationalize oneself within the environment, being the desire of an individual for place-making. From the very first time abstract symbols were materialized by primitive designers, the potential of the environment changed and nature began to be experienced like never before. It also carries the ability to be symbolized by the following inhabitants, and this section looks at how these inhabitants materialize their existence[47] and, moreover, how the built environment evolved. At the dawn of history, the environment was vast enough for the design of one individual not to affect that of another, but once it had been built, there was no turning back, and the potential of the environment was thus changed irreversibly. As the system[48] has an irreversible component of time, human-environment relationships are entropic in nature, and this can be considered the basic cause of (the sense of) lack of place, as exemplified in the following section.

[47] "Materializing someone's existence" also means place-making-rationalization. See also 2.2.2.
[48] The system is composed of human and environment.

5.1.1.Pre-urban Settlements:

If one has no place in space, he is already lost. The sense of loss can be seen even in the old myths of survival. It is even seen in the Sumerian epic "Gılgamesh", of which there are several versions, having been interpreted by the Babylonians, Assyrians and Hittites (Rykwert, 2000). Although their experience of geographies was different, all felt the same sense of loss.

> "The experience of space is not a privilege of the gifted few, but a biological function" (Moholy-Nagy, quoted from Banham, p.49, 1975)

Place was a synonym for survival; and lack represented death.[49] The organic geometry of geography was experienced at the very beginning while trying to survive in nature. Around 25,000 B.C. the first *Homo sapiens* evolved, living under trees, in caves and in huts imitating their experience of the natural environment until they gained a level of control over their food supplies in around 8,000–10,000 B.C. (Morris, 1972). The similarity between geographical (natural) geometry and the first shelters[50] gives us clues as to how humans imitated their experiences of the natural environment. They built not only to create a place in which to survive, but also as a representation of the individual self in the environment (Barlas, 2006, Rykwert, 1974, Tuan, 1974, 1977).

Second, the advent of the Agricultural Revolution made larger communities a necessity, as maintaining control over food supplies required communal effort. As a result, the social unit started to expand and the territorial formation changed. Common areas began to emerge in two distinct primitive forms, being the **square** and the **street**. One of the most interesting examples of an early communal area can be seen at Çatalhöyük, which dates back to 6500 B.C., which features adjacent living units that gives the city a unique system of defense that is based on communal living. Every living unit has shared space on floors since they are accessed from the roof. The entire

[49] It can be said that this is the case still today.

[50] Two distinct examples may be given here. The first one is the shelters found in Southern Russia, close to Kiev dating to around 40,000 B.C.; and the second is the Eskimo igloos that are designed for cold climates, produced and developed through trial and error. Both use available materials, for instance, snow for igloos, and mammoth bones and skin for a basic tent.

roof area is a public square. The symbolic importance of being public comes from a sense of certain proximity. Whether living in a hut, in a cave, under a tree, in a house in Çatalhöyük or in a public place, life is dependent on proximity, as this satisfies the basic need to feel safe as part of a community. On the other side, "Khirokitia in (Northern) Cyprus had a street, the first I know of, and the unwalled settlement stretched along its length in a pattern of growth that was potentially open-ended" (Kostof, p.30, 1991). Rykwert has provided several examples of street-like formations that facilitated societal living, and Barlas expressed the symbolic importance of the street: "Life is a path and/or passage. We enter this path through one door (birth) and exit through another (death). We try to rationalize our existence in the material world" (p.53, 2006).

The symbolic importance of the square and the street may be better observed in Stonehenge.[51] Inhabitants of Stonehenge had been surviving in nature, but what made them build the circle in Stonehenge, was their desire to create a place for their rituals. In short, it was the lack of a place in which to signify their existence in their environment that led the creators to design Stonehenge.[52]

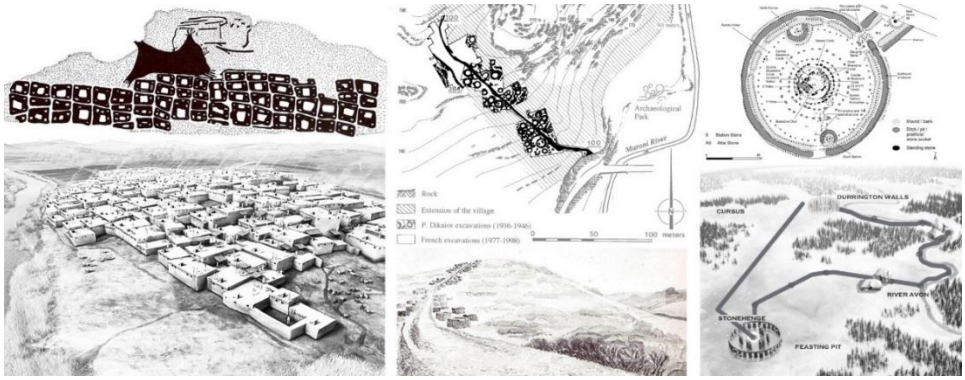

Figure 5.1: Çatalhöyük, Khirokitia & Stonehenge
Source: Adapted and edited from (left to right): Çatalhöyük plan: Kostof, p.29, 1991,Çatalhöyük 3D Illustration: http://www.newtowninstitute.org/newtowndata/newtown.php?newtownId=1488 (Last accessed: 10.09.2015), Khirokitia Site Plan: Le Brun, p.110, 2001, Khirkokitia 3D Illustration: Kostof, p.190, 1992, Plan of Stonehenge: Darvil, Marshall, Pearson & Wainright, p.1022, 2012, Stonehenge 3D Illustration: Aronis N. for National

[51] For more information, see also Mike Parker Pearson's research on Stonehenge or National Geographic's Stonehenge: Decoded, 2008.
[52] Tuan stated that "No doubt it is less a place for British tourists than for its original builders: time has caused its dread as well as its stones to erode, but Stonehenge remains very much a place." (p.163-164, 1977)

Geographic's Game of Stonehenge Decoded, https://nicholasaronis.wordpress.com/custom-games-page/national-geographic-channel-stonehenge-decoded/ (Last accessed: 10.09.2015)

In contrast, the motivations of the Egyptians and Mayans were cosmic, being based on their dependency on the sky, and they represented their existence in space by imitating the iconic geometry of the sky. The inhabitants of Teotihuacan[53] were villagers whose existence was dependent on the sun and weather conditions, so they produced a monumental axis in their cities to orient entire urban units. They had a strict orthogonal formation[54] that was an abstract model of the sun, moon and earth.

The Sumerian city of Ur went one step further, using street and square formations together. The first inhabitants of Ur produced common areas and chapels at the intersections of streets, and produced one of the world's first walled cities to protect themselves. The desire to be inside the walls of the city increased[55], and so did the density of the population inside the walls. Then, early inhabitants felt themselves more privileged as the first comers and, built another wall in inside the walls of the city, and their *temenos* was in it.

> "At the start of fourth millennium B.C. people still had free access to the temple. Later the chief temple was placed on a terrace and the temple compound surrounded by a wall. Distance between God and people steadily increased. The terrace became higher and higher until, about 2000 B.C., it assumed the shape of a stepped pyramid or ziggurat, which was Mesopotamia's most distinctive contribution to architecture" (Tuan, p.91, 1974).

It is easy to observe in the case of ziggurats how a lack of place can bring about a desire for place, which Rykwert defined as the *seduction of place* (2000). Crowdedness was seductive, but as density increased, attempts at design were observed, and as ziggurats became higher, they also became more inaccessible, resembling a monumental pyramid. For those who came later, the spatial experience of ziggurats implied a non-spatial religious use. After the urban design experience of Sumerian city of Ur, it should not be shocking to see Babylon's city pattern become much more

[53] It should be stressed that there were 200,000 inhabitants of Teotihuacan in 450 B.C.
[54] Despite their lack of mathematical formulas or advanced scientific equipment, they settled close to the exact position that would bring them maximum benefit from the sun (Lynch, p.12, 1981).
[55] Someone outside the walls desired to be inside

complicated, redesigned after it, and the collective experience of society was transferred to the following generations. "The process of remembering as enabling us to build up a residue of experiences which we might draw on at any point in time" (Canter, p.16, 1977). Urban history is built upon the residue of spatial experiences. For instance, there are eight gates in the wall surrounding Babylon, as well as seven temples and its famous towers (of Babel), all of which can be observed in its plan, but in such a crowded and stratified environment it became harder to live as a community. This led Hammurabi to pen the first known written laws, known as the Code of Hammurabi,[56] which were written on a *stele* and erected in a public area, and aimed to eradicate contradictions in social life. These are considered in this thesis as proof of lack of place resulting from overcrowding.

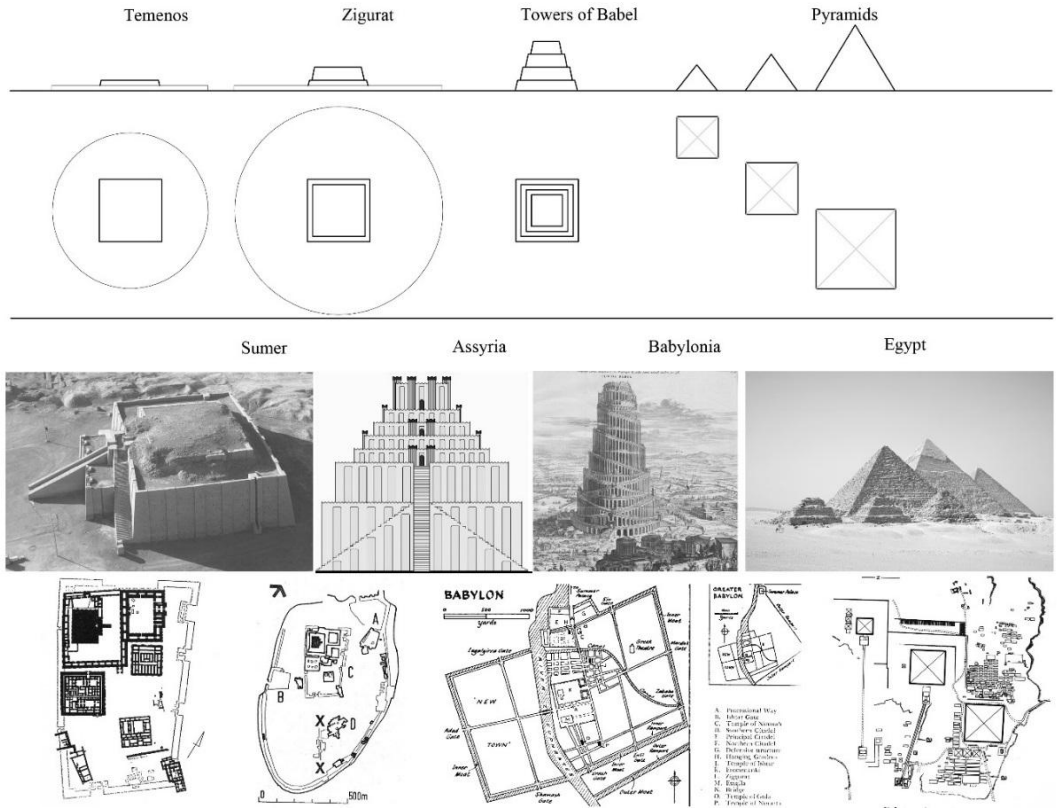

Figure 5.2: From Temenos to Pyramids
Source: Adapted and Personal Rendering From Moholy-Nagy p. 54, 84, 92, 1968, Morris, p.7, 1972. Images and Illustrations From www.wikipedia.com (last accessed: 10.09.2015)

[56] See also "Code of Hammurabi" translated by R.F. Harper in 1904, University of Chicago Press.

Finally, Egyptians built their cities based on the inherited experience of Sumer and Babylon. They observed the floods of Nile River and they related their entity with the sky. “Lower Egypt’s theology of the sun was superposed on Upper Egypt’s theology of Nile; an east-west axis estended across the north-south axis.” (Tuan, p.87, 1974). This theology bases Egyptian geometry on the axial formation of cardinal direction, which was demonstrated both two-dimensionally and three-dimensionally in the case of the Pyramids. Moreover, Egyptians, for mechanical purposes, benefited from the advantages of the grid. For instance, the city of Kahun was established to host the pyramid of Amenemhat III, and its strict grid-iron formation offered great advantages as a means of controlling and planning construction. The God-Kings were aware of the efficiency and benefits of the grid, although the main scope of the grid formation no longer carried celestial meaning, but a functionally efficient one.

In conclusion, lack of place was merely a residue of environmental settings following abandonment, re-designing upon the old structure or some other results (as seen above). When the city gets crowded, lack of place is eliminated through the redesign of the space. However, reaching the limits of crowdedness, some civilizations attributed the significance of place to religion (Ziggurat); some used written laws (Laws of Hammurabi); and others increased monumentality (Pyramids and the God-Kings). By any means, the significance of place has been changed, transformed and lost, as seen in the story from *Temenos* to the Pyramids. In short, the lack of place has always been there. It is tempting to make places of our own, and this, in fact, it is the main motivation behind place-making.

5.1.2.Greek & Roman City States: *Imıtation*

In Greek Mythology, the word of *Lethe* refers to one of the rivers of the underworld, meaning forgetfulness. The same word was used by Heidegger to identify *concealment of being*. Moreover, Persephone, goddess of springtime and rebirth, was in a sleep

identified as *Lethe*. She wakes up every season with an absent and fresh memory. *Lethe* is a level of death, meaning evanescence. It reflects the archetypal pattern of death which if it were to be conveyed to mortal beings, it would appear as the lack of place in the material world.

Development of Greek-Roman City States can be examined in three periods, Greek, Hellen and Roman. The passage from one period to the other is a historical transformation including changes in some environmental settings of an urban formation. This transformation is not only the beginning of building something "new" but also, a loss on places of "old". In fact, the transformation itself is the factual evidence of the entropy in human-environment relations.

In Greek & Roman city states, the community had priority over individual associations. Aristotle called it *synoecism* -"living together" (Kostof, 1992, p.59). The idea of being urban community was not a sudden decision, "it springs from a conscious desire to replace" (Kostof, 1992, p.60). Being a society/communal is a continuous involvement that is structured/defined in space. First, Greek's were mainly villagers. Their urban life was bounded to the agricultural area surrounding the states. When a *polis* had reached its agricultural limit, it leaped naturally[57]. A mother city such as Athens constituted of an ideal for the child city-states. Its pattern was imitated. This natural hierarchy made them overcome the problem of overcrowding. The thread here was the colonial approach developed with the stereotypic imitation and metamorphic reproduction of mother city. They built for ever and, inherit/replicate physical settings of the mother city. Stereotypic imitation or replication of physical settings is in fact, one of the main reasons behind the lack of place.

In 6 B.C., Heredot described Babel as: "… intersected by straight streets, some parallel and some at right angles to the river", from which it can be understood that Greek

[57] There was a basic rule about city states that, a *polis* could not be more crowded than the mother state, and this rule was adopted with an agricultural basis. The limits of a city are defined by agricultural fertility.

civilizations had also adopted the Babylonian grid[58] (Kostof, p.104, 1991). While the Greeks imitated the grid, their version was "less compulsive, more pragmatic, even though it was not wholly without political intent", and was not the same as that created by the Babylonians or Egyptians, from whom adopted it (Kostof, p.104, 1991). Hippodamus, known as the "father of town planning", developed his marvelous design after the Persian destruction of Miletus in 494 B.C, and this was one of the earliest grid-iron formations. He is identified as the first urban designer, and his primary focus was the inhabitants. Before Hippodamus, there were a few urban design experiences, and little was known about urban formations. The first and most important urban design regulator was the population at that time. As Aristotle stated, "… ten citizens do not make a *polis*, while with 10,000 is a *polis* no longer". Plato calculated the ideal population size to be 5,040, using mathematical theory, while Hippodamus identified populations in geometrical terms, dividing the land into three distinct zones: public, private and sacred (Morris, p.54, 1972). According to Kostof, 1991, Hippodamus not only invented the grid formation, but also structured a socio-spatial segregation through the application of land use policies (Remember that Weber blamed land use planning policies for producing Non-places).

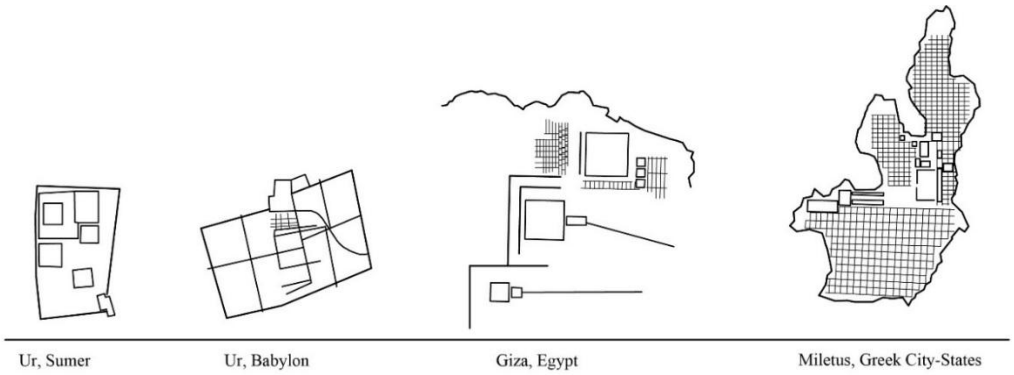

Figure 5.3: Imıtation of Grid
Source: Personal Rendering. Maps Adapted and Redrawn from Moholy-Nagy, p.54, 84, 92, 174, 1968

[58] According to Morris, "Greece is known to have had direct links with the Sumerian and Egyptian civilizations" (p.38, 1972).

One of the greatest contributions of Greece to human history was agora – a multi-purpose public space at the heart of the city. Kostof explains its symbolic importance: "You brought your Gods and their cults, and institutions like the agora, premier symbol of self-governance, and the concept of the polis itself" (p.104, 1991). The visual experience of the agora allowed every individual to rationalize themselves in the *polis*, but unfortunately agora suffered the devastation of overcrowding. For example: "When the Athenian Agora proved too small for the purpose, the general assembly moved to the nearby Hill of Pnyx … Here the laws were carved in stone and exposed to the public. In the laying out of the new colonial cities, the land for the agora and the temples was the first to be allotted" (Kostof, p.153, 1992). Following the Hellenic and Roman periods, agora was institutionalized with the addition of theme buildings, sculptures and landmarks, which is the same design attitude defined by Relph as *other-directed places,* being one of the main causes of placelessness.

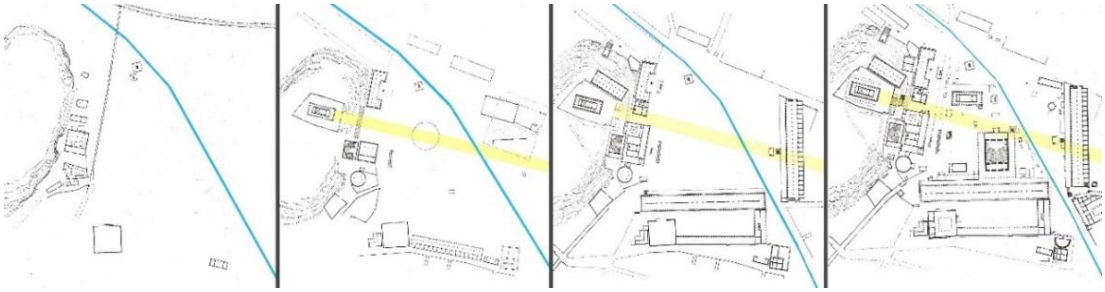

Figure 5. 4: Evolution of Athens Agora
Source: Adapted from Bacon p. 70, 71, 1967

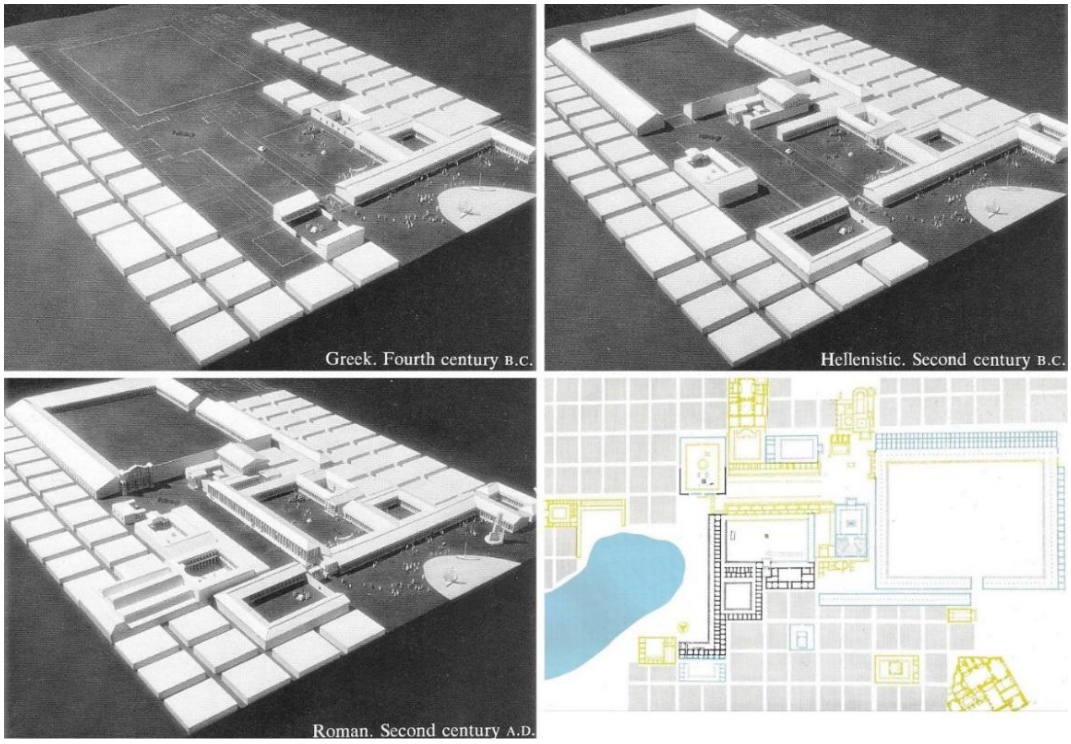

Figure 5. 5: Evolution of Miletus Agora
Source: Adapted from Bacon, p.74, 75, 1967

The second era of the Greek and Roman city states is to be referred to as Hellenic period, which began with the conquest of Anatolia and Asia Minor by Macedonian King Alexander the Great between 336 and 331 B.C. (Morris, 1972). Alexander had a vision of an ecumenical empire,[59] and sought to establish a nation state rather than a city state that would be a prototype of the Roman Empire. The authoritative ideal came with the imposition of the symbols that adorned the Agora, and it was imposed on individuals, in an attempt to curb their opportunity to rationalize themselves in society. Kostof explained the process:

> "The form of a synoecistic city absorbs the shapes of the original settlements, along with the road system. The open spaces that existed between the settlements are filled slowly and retained open in part as markets and communal centers" (p.62, 1991)

[59] "The young Alexander, embarked on World conquest, found in the Assyro-Babylonian administrative and military organization the instruments to slough off the ethnic urban concept of his teacher. Instead of the Aristotelian division of citizens into barbarians to be conquered by *depotes* (masters) and Greeks to be ruled by *hegemones* (leaders), he introduce *homonoia* and *koinoia*, human accord within the fellowship of man, regardless of race and creed." (Moholy-Nagy, 1968, p.102)

If Miletus and Alexandria were to be compared, one could say that Alexandria had a more stratified spatial structure, while Miletus had more breathing spaces. "They imported form without content, and could imitate but not initiate" (Moholy-Nagy, p.123, 1968). The imposition of stereotypic forms produces a sameness that is identified as the reason for lack of place by Relph.

The third era corresponds with the rise of the Roman Empire. The Romans urban form was a replica of Greek and Hellenic urban pattern. Although having a distinct political absolutism behind the design efforts, producing attractive engineering icons and functional units, would lead to the establishment of an ideal Rome. They fragmented functions and put them into monumental buildings in an attempt to control the crowds in the city, but their design efforts proved to be insufficient. In the end, the crowdedness and functional fragmentation compressed urban space, leading to the generation of more lack of place, and while design efforts were applied to resolve the problem, this led to more fragmentation, and the cycle continued. The end result was that the discrete crowds of Rome had no idea about the place in which they lived. Morris argues, quoting from Lanciani, that the shepherds and villagers of Rome had no idea about *cardo* and *decumanus*, or even the Seven Hills of Rome (p.59, 1972). "Their sequence is an interesting reflection on the gradual amplification of imperial theocracy that originally had been totally alien to the dour shepherds of the Seven Hills" (Moholy-Nagy, p.129, 1968).

If the Greeks were artists, the Romans were engineers, and the ecumenical vision inherited from Alexander was enhanced with tools and machines by the Romans (Bacon, 1967, Morris, 1972, Moholy-Nagy, 1968). Why were they so interested in engineering? Unfortunately, unlike the Greeks, the Romans had no urban plan for their great city of Rome, as there was rather a gradual amplification of non-spatial symbols and fragmentations of urban space to sustain the basic dwelling needs. The extra effort required to reside within such a dense urban crowd demanded advanced engineering techniques. Vitruvius (circa 90–15 B.C.) explained the preliminary engineering

solutions in his *Ten Books of Architecture.*[60] He was aware of the loss of geometric attitude in design, which is why he wrote the books. Feeling the lack of place, he tried to elaborate upon the architectural efforts of his ancestors in his book, but to understand Vitruvius better, it would help to identify what he lived during the transition from the Greek to Roman periods. The *agora* was a multi-functional space with a simple geometry that could satisfy all purposes and functional necessities required within the urban space. Its spatial quality gave every individual the freedom to rationalize themselves. Overcrowding came with a mechanical system that imposed a pre-identified interior space for each function. The *forum* had distinct interior spaces fit for each function, and there were buildings inside the forum area for legal, administrative, law and business functions, assigned to certain buildings. Unlike the *forum*, the *agora* had rich symbolic significance, where symbols of the community separated and segregated, and were assigned to specific buildings (Carcopino, 1940). One of the factors behind the Relph's concept of placelessness was *disneyification,* and the *Circus Maximus,* which stood between the *Palatine* and *Aventine Hills,* was one of the greatest theme parks in Rome. In addition, the *Colosseum* close to the *Forum* also served for the amusement needs of the population,[61] although these were not only for amusement, in that they also served as a social control mechanism for the crowds (Carcopino, 1940, Morris, 1972). In a period starting from 100 B.C. to 50 A.D. Roman *Forum* extended. *Porticos,* or colonnaded walkways, "lost their contact with street elevations and stood around like buildings in search of streets" (Bacon, p.131, 1969). The *Forum* lost its focus, as the "Assyria-Babylonian and Hellenistic street pattern, had lost their context" (Bacon, p.131, 1969).

[60] The details of hoists, pulleys, cranes, and sundial, a water clock and Aeolipile (steam engine prototype) proves the Roman's engineering needs. It is inferred from his books overcrowding causes even health problems. He gave extra importance to finding water, structure of aqueducts. Furthermore, the war machines was another book that supports the imperial approach. He proposed catapults, siege ram, and ballistae.

[61] Public games which we have already been familiar in all scale such as from Olympic Games to local organizations, has always a part of settled life but, it was not as "public" as before. According to Kostof, 1992, "The relation of games to Public places is an intimate one. At its most innocent, public places like the civic square, because of their size and centrality, were the only suitable setting for some games in the absence of a specialized architecture for them. "It is a custom handed down from our ancestors," Vitruvius writes, "that gladiatorial games should be given in the forum" (De Architectura, v.1).

In conclusion, there were manifestations of lack of place even in the Greek, Hellenic and Roman[62] eras. The crowded urban environment led man to become dependent on engineering, although it can be seen in history that engineering is not the ultimate solution for the problem of overcrowding. Engineering leads to lack of place through its stereotypic formations, functional fragmentations, thematic uses, replications and *disneyification*, which was expressed as the main reason behind the lack of place by Norberg-Schulz, Auge Weber and Relph. Hippodamus, Alexander and Vitruvius felt the same sense of lack of place, and sought to redesign their built environment. It can be understood from history that imitating the imitated urban experience of the Greeks resulted in a recurring lack of place. The *onto-logic* of urban entities has been losing its content, such as in the case of the use of the grid formation, from the *Agora* to the *Forum*. In this regard, lack of place may be identified as a sequential process that increases incrementally (i.e. the entropy of the system [human-environment relations] is increasing).

5.2.Transforming Human-Environment Relations:

> "The only radical difference between human history and 'natural' history is that the former can never begin again" (Rowe & Koetter, quoted from Jose Ortega Y Gasset, p.118, 1983).

The geographical environment is composed of human-made and natural environment, and once built or experienced, there is no turning back. For this reason, the human-made part of the geographical environment has been increasing relentlessly, and this

[62] Romans capture İstanbul at 192 A.D. Rome, and İstanbul has a similar topographic formation. İstanbul with its seven hills has an opportunity for a revival (replicate the physical settings) of Rome. Themistius words prove the lack of place in Rome while they were searching a new capital for the "New Rome".

> "No longer are we cultivating more territory within our walls than we inhabit; the beauty of the city is not as heretofore scattered over it in patches but covers its whole area like a robe woven to the very fringe." (Although officially renamed "New Rome", it was known from the outset as Constantinople)" (Morris, p.90 1972 quoted from Themistius, Oratio XVII)

is why the entropy of the system i.e. the human-environment relationship, is increasing.

> "The ancients perceived the world as eternally existing and self-renewing, whereas we perceive it as created and existing within temporal limits …
> … the creed of progress was raised into a dogma, a dogma given various interpretations …" (Giedion, p.30, 1955)

The built environment is an imperative for new generations, in that it conveys the signs and symbols of old places, and every coming generation rationalizes these signs and symbols by modifying the built environment, and transposing their symbols onto the existing places. The geographical environment is transformed by its inhabitants, and urban history can be considered a continuous decomposition of the environment. In this regard, the places of former generations become lost; indeed, this is a historical fact, and is the reason behind lack. But there is a lot more to it than that. The place is a unique experience of space; it is dependent on society, the environment and history. The significance of place is signified with signs, and when signs are to be transferred to someone else, or are to be signified by other generations, they are conveyed through symbols. Symbols are ephemeral, based on two facts:

- Humans are temporal, and the significance of symbols may be lost from generation to generation due to their temporal nature (Personal).
- History is an irreversible phenomenon. Built symbols of older generations constitute the existing state for a new generation, and a reinterpretation of these symbols brings about a loss of their spatial attributes (Collective).

The built environment conveys spatial symbols, and humans reinterpret those signs through visualization, complementation and symbolization. The ongoing reinterpretation of these symbols brings about a transformation, and during this transformation, symbols that are not concretized or those that have been abandoned in the environment lose their significance. In this respect, the nature of transformation itself creates a lack of place. Furthermore, the continuous transformation brings a new equilibrium to humans and geographies. In history, shifts have occurred in the

conceptualization of space-time, and these have brought with them a new consciousness of geographies that is evaluated as proof of lack of place.

> "1st Space Conception: Space was brought into [life] by the interplay between volumes. This stage encompassed the architecture of Egypt, Summer and Greece. Interior space was disregarded.
> 2nd Space Conception: Began [during] the Roman period when interior space, and with it the vaulting problem, started to become the [ultimate] aim of architecture.
> 3rd Space Conception: Set in at the beginning of this century (was rooted from the Renaissance age) the optical revolution that abolished the single viewpoint of perspective. This had fundamental consequences for man's conception of architecture and the urban scene. The space-emanating qualities of free-standing buildings could again be appreciated" (Giedion, p.iv-ivi, 1971).

5.2.1.Medieval, Renaissance & Baroque:

This section focuses on the medieval shift in history, dealing with the means by which the urban space consciousness was transformed. The issue will be discussed in three stages: Medieval, Renaissance and Baroque. It should be remembered that the basic lack of place that was explained previously still applies, being an ongoing process, and its overlapping with the oncoming periods will be explained in this section.

The first stage covered here is the Medieval Era. Morris identified medieval towns as: "… towns of Roman origin, burgs, villages, bastide towns and planted towns" (p.92, 1972). Fortification was the determining factor in the urban form, and the Roman *castra* constituted the general structure of the Medieval walled city. The Medieval design was based on expanding belts of streets surrounding double curtain wall/s, a main square and a cathedral and/or castle (Giedion, 1971, Morris, 1972). "Walls need room … In medieval Europe, the idea of the double curtain becomes current in the 14th century. The addition of a second wall created a sheltered belt …" (Kostof, p. 28–31, 1992). The belt between the walls presented an option for identical "land uses", and they became the first pleasure gardens, as the ancestors of the theme park, until the collapse of the walls.

The overcrowded settlement inside the walls, unsanitary living conditions, epidemic diseases and the need for strong fortifications brought a spatial burden to Medieval

Towns.[63] Urban space is limited, squeezed and unhealthy. On the other hand, the development of printing technologies provided a new method for transmitting knowledge, giving people easy access to to accumulated information. This had a profound effect on the development of new ideas in architecture and engineering, and the advent of printed publications and problems of urban life caused a revival of interest in the "ideal" city form. As an example, Vitruvius's *De Architectura,* founded in 1412 and published in 1521, had a mystical effect on architecture (Morris, p.158, 1972).

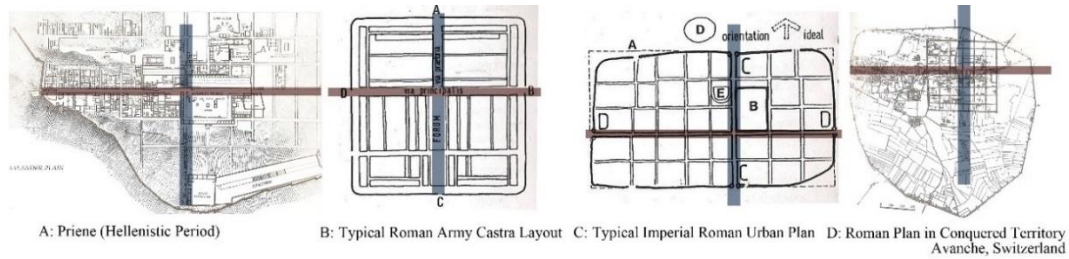

Figure 5.6: From Hellenistic City-State to Castra and, the Superimposition of Castra on a Conquered Field
Source: Personal Rendering from Morris, p. 57, 1972, Moholy-Nagy, p.179, 181, 1968

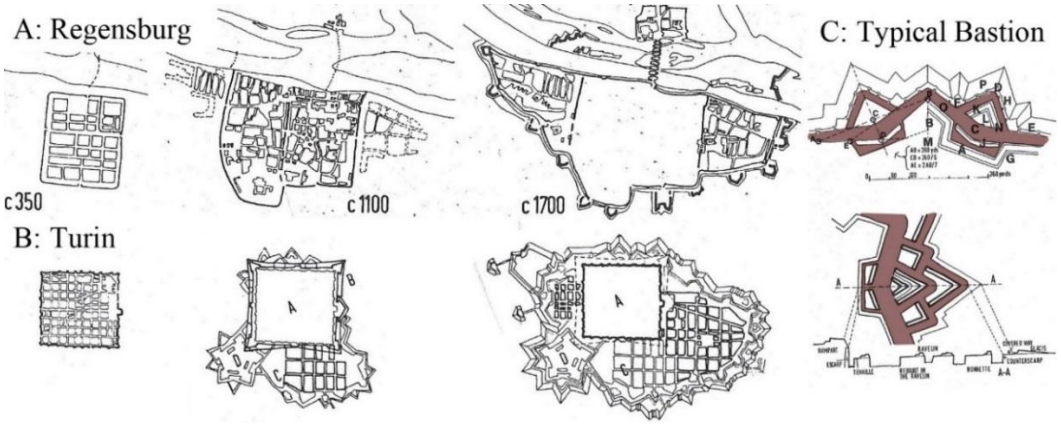

Figure 5.7: From Castra to Medieval Walled City
Source: Adapted and Edited from Morris, p.104, 165, 1972

[63] "Movement in medieval towns was very largely on foot; wheeled traffic reached significant proportions only late in the period and transport of goods was mainly by pack-animal. Street paving commenced early in the period; Paris 1185, Florence 1235, Lübeck 1310- indeed by 1339 all of Florence was paved. Throughout the middle Ages there was a tendency for buildings to encroach even further on to streets (including bridges) and into public open spaces. Attempts to regulate this gradual strangulation met with little success. Upper floors projected still further out over the street until eventually it was literally possible to shake hands between opposite windows. Thus, the medieval city acquired its traditional street scene" (Morris, p.94, 1972).

Palma Nova is known as one of the earliest ideal cities to be developed on paper. The idea of Palma Nova was derived from the experiences of Vitruvius and the medieval walled city. According to Kostof (1992), the design idea started with Leonardo Fibonacci's work in *Practica Geometriae*, and the first urban diagrams could be found in Fra Giocondo's 1511 edition of Vitruvius. "It is a new way of representing cities graphically – namely, as an iconographic or ground plan" (Kostof, p.131, 1992). Filarete Sforzinda drew the first diagram of an ideal star-shaped city in around the 1450s. Kostof stated that it was a search for a perfect society and a so-called humanist city of monarchic despotism (p.187–189, 1991). Leonardo da Vinci worked on similar diagrams. "He expressed a desire to see towns made more sanitary so that their inhabitants would no longer have to live 'packed together like goats and polluting the air for one another'" (Giedion, p.55, 1971). He produced an ideal plan for the city of Florence in around 1490 with Fransico di Giorgio. Da Vinci is one of the leading characters who felt the lack of place and attempted to design for the better.[64] Finally, Vincenzo Scamozzi started to build Palma Nova about a century later in 1593. The Roman-originated urban formation was reinterpreted and built as an ideal star-shaped city using new representation techniques. This was a totally new consciousness in urban space conceptions, built upon the existing settings. On the other side, it should not be considered a coincidence to see a new ideal city under the political despotism of the Medieval Age. The word "utopia"[65] was introduced in 1516 by Thomas More, referring to something that is lacking geographic and/or sociologic identification. More emulated his Greek ancestors and expressed the city of *Amaurote* verbally as his desired place to live, depicted as an island with strong fortifications (More, translated by Robinson, 1992). Moreover, the city was removed from the despotism of the feudal structure and the tyranny of the church. Tommaso Campanella (1568–1639) describe his utopia City, *The City of the Sun* in 1602 after he was arrested. More and

[64] See also the documentary by Julian Jones, "Inside the mind of Leonardo", 2013.
[65] The word derived from the Greek words, outopia (no place) and eutopia (good or fortunate place).

Campanella[66] dreamed of their ideal cities and published them, but it was the lack of place that led them to produce their own utopic places.

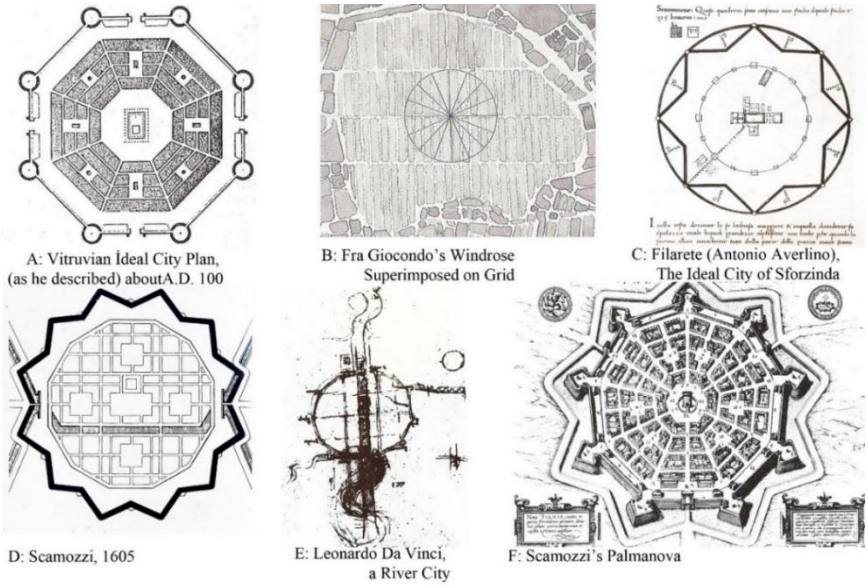

Figure 5.8: From Vitruvian Ideal City to Palmanova
Source: Adapted and edited from Morris p. 169, 172, 1972, Kostof, p.131, 1991, Moholy-Nagy, p. 69, 70, 211, 1968

The second stage covered in this part is the Renaissance. In the Medieval age, space was designed as a still image, and the establishment of perspective drawing raised the consciousness of man towards his environment. During the Renaissance, space started to be thought of as a dynamic entity, and three-dimensional representations provided a new understanding of visual geometry, going beyond the still images of odd mathematical geometry, although the majority of design efforts at the time were stereotypic imitations of the pioneering works. According to Giedion, "Although perspective was creating a new attitude of mind, the … tradition lived on in many ways and influenced the implementation of city improvements, particularly in the public squares" (p.55, 1971). Kostof summarized the Renaissance ideal as:

> "Around 1600 systems of bastioned curtains improved over several decades were universally subscribed to. This meant that cities, old and new, were encased in an elaborate, often star-shaped, ring for pointed, low spreading bastions with an

[66] He dreamed of creating the first primitive communist ideal city, which boasted healthy and equal conditions based on basic the rules of theocracy. In 1616, he wrote in defense of Galileo.

enormous physical reach. Within this ring, the vast majority of the new towns were straightforward grids; a few towns adopted radial-concentric street system inspired by Renaissance project of ideal cities like Flarete's Sforzinda, as a subsequently reinterpreted by military engineers for the artillery age" (Kostof, p.111,1991).

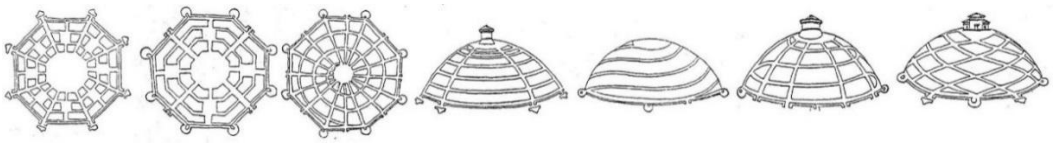

Figure 5.9: Radial studies of a star-shaped city, Francesco di Giorgio Martini
Source: Adapted and Edited from Rowe & Koetter, p.13, 1982

The medieval spatial burden provoked a radical shift in design attitudes, resulting in a new canonic design doctrine with a linear perspective. The discovery of perspective[67] incited architects to think how to handle large volumes, spatial relations between the volumes and planes. "Scenically, the Renaissance Street consisted of some individual buildings set down at random on separate sites …" (Giedion, p.57, 1971). Bramante introduced the stairway to unify separated monumental buildings and planes at street level, although the terraced buildings and monumental stairways of the Renaissance were used very differently from the ziggurats of Sumer and the pyramidal forms of Egypt. For instance, Michelangelo's Capitoline Piazza is one of the best preserved examples of the design approach of the Renaissance. The Piazza was re-designed in line with new geometric principles. After the pioneering works of the Greeks, the Renaissance brought a new spatial approach to design. Da Vinci went one step further in his use of the language of geometry, looking for the influence of geometry in the dynamism of everything in life. He was one of the first designers to propose the separation of wheeled and pedestrian traffic. What Leonardo had foreseen was designed about a century later in Rome.

[67] Perspective is thought to have been discovered by Brunelleschi while working on the dome over the octagonal walls at the crossing of the cathedral of Florence between 1417 and 1434.

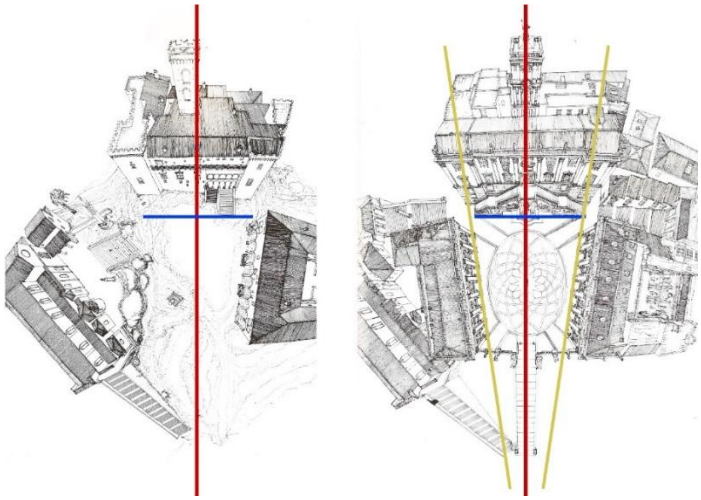

Figure 5.10: Piazza di Campidoglio after Michelangelo
Source: Personal Rendering from Bacon, p.114-119, 1967

The third stage covered in this part is the Baroque Age. Baroque man questioned his position in the environment, having reached a certain intellectual capacity with the adoption of printing techniques. Until the Baroque Age, human beings were part of the environment, but after that, they were within the environment, above every other being. Kostof referred to the Baroque city as "an artificial design" (p.219, 1991), and it was the interventions of Sixtus V in Rome[68] that constitute the framework of the Baroque Era.

> "There is no evidence that Sixtus intended to change Rome from a maze of medieval slums into a planned orthogonal city by opening up linear communication and design effective 'reciprocal vistas.' From the available documents, it is abundantly clear that he hated the worldly Romans, who were disenchanted by the stern strictures of the Counter Reformation, and that his nine processional routes through the sparsely built-up eastern section of town were designed for a blatantly anti-urban processional ritual of piety and penitence" (Mogoly-Nagy , p.144, 1968).

As can be understood from Moholy-Nagy, Sixtus V saw a lack of place that he attributed to the "worldly" sinful crowds of Rome. He sought to find solutions to the overcrowded, unsanitary and sinful urban life. Their program had three main objectives: repopulating the hills by providing an adequate water supply, connecting

[68] Why do we define them using two names: city and urban? Urban is rooted in the *urbs* of the city – the walled, fortified city; while city rooted in *Civitas* – as civil life in the city. During the Medieval era, the identification of the built environment has also been transforming from urban to the city (Sennett, 1992, Kostof, 1968).

the churches with a street system, and creating an aesthetic unity between the buildings, streets and public places (Morris, p.179, 1971). Sixtus' Plan was not a star-shaped city since, medieval *bulwark* was an old dated defense solution for canon. Changing war technologies created a "baroque means of expression" by using straight streets (Giedion, p.75, 1971). On the other side, "the lines of the traffic web of a modern city were first formulated" (Giedion, p.75, 1971). The built symbols of Rome were re-composed and reinterpreted, and the significance of Rome changed, with some of the most valuable places[69] being lost during the redesign. Furthermore, as can be understood from the words of Giedion, a settled lack of place occurred after the Baroque Age, "A Dislike of large cities was, indeed, one of the characteristics of Baroque absolutism everywhere in Europe" (p.137, 1971).

Rome's spatial character shifted, from a walled to an open city. The successful implementations in Baroque Rome were first imitated by the Bourgeoisie of Paris, with Tuileries Palace being one of the first examples of a thematic garden in history, imitating the Italian style. "The first transformation of city ramparts into a significant public way, however, occurred in 1670 when Luis XIV abandoned the walls of Paris and ordered them turn into public pleasure promenades[70] (Jacobs, Macdonald & Rofe, p.74, 2002). The reason of transformation was Catherine de Medici's[71] having a feeling of lack of place because of a dislike of a large cities. Furthermore, Sir Christopher Wren's Plan for London was another stylistic imitation of Baroque Rome following the Great Fire of London. Morris identified Sir Christopher Wren's plan as "irrelevant to the needs of the city [that] has already been established" (p.258, 1972), and the plan was rejected after three days of criticism. Another outstanding example

[69] For instance, the Colosseum served as a "wool-spinning establishment" (Giedion, p.106, 1971). While the ground floors contained workshops, the upper floors were laborers houses. It cannot be considered a loss, because it already had a spatial mass; it was just ignored.

[70] "Two additional novelties belong in this history – The cours and the mall, both of which have their origins in late-16th century Italy where they were the settings of new recreational pastimes. Both figured at the city edge, in proximity to the walls or in their residual spaces" (Morris, p.199, 1972).

[71] "Catherine de Medici, widow of Henri II, tired of living in the cramped enclosed courtyards of the Louvre, commissioned Philibert Delorme in 1563 to build a new palace outside the walls, with a spacious Italian style garden extending to the west. This was the Tuileries Palace, unfinished when Catherine died in 1568 and completed by Henri IV and Louis XIII" (Morris, p.199, 1972).

of an *other-directed* place is Bath, which was thematic in its function. Bath was built for entertainment purposes – for taking a bath – for the English bourgeoisie in the 18th century, and can be considered a medieval Las Vegas or Disneyland, and as such suffered from the Relph's *disneyification* as a cause of placelessness.

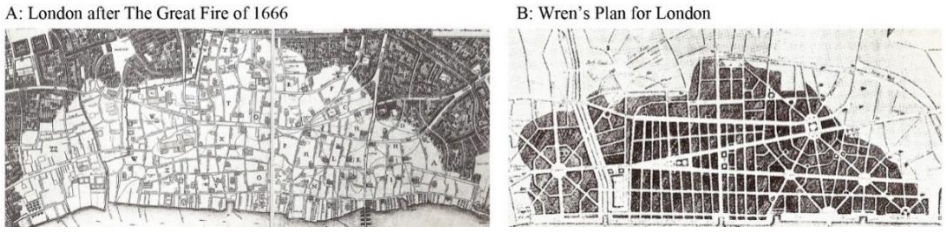

Figure 5.11: The Impact of Rome on Wren's Plan of London, 1666
Source: Adapted and Rearranged from A: Kostof, p.249, 1992, B: Moholy-Nagy, p.144, 1968

Figure 5.12: The Evolution of Bath
Source: Adapted and Rearranged from Bacon, p.184-185, 1967

In conclusion, the places within the old urban settings left their places to new ones, a new urban space consciousness was reached, and during this process, some urban features were lost, while others were transferred, transformed and/or evolved. Lack of place is not a new phenomenon, in that it has been evolving throughout history. As seen in this part, utopian approaches, thematic/identical uses and residual spaces were concrete evidence of lack of place in the past. Furthermore, the meaning of city has always been in transformation; in fact, if one could observe urban history within the old state of context, one would find that today's non-places were inventive places in the past.

5.2.2. Late Baroque to Initial Steps of Modern City: *Planned Picturesqueness*

Egyptians, Greeks and Romans used Euclidean geometry in the design of their urban settings, after which Renaissance thoughts raised perspective geometry. The Baroque era saw the seeds sown of a different consciousness to before. Human beings more than ever wanted to transform their environment, no longer accepting design upon the existing landscape. They felt they could design it better than it already was, and so demolished the old places to replace them with new ones. Kostof used the term "demolishing artists" to refer to those who proposed *planned picturesqueness* in their minds. There were two main types of planned transformation in history after the walls were demolished: the Paris-like urban format, and the Regent's Park-like non-urban/rural format (Kostof, 1991). The United States may be classified as a third format, as their industrial derivative.

First, the macroform of the open city made it necessary to mobilize. Paris was suffering from density, with crowded horse-drawn carts filling squeezed streets and unsanitary living conditions in the middle of the 19th century. "It was his (Napoleon III) desire to provide a splendid framework for the great traditions preserved in Paris. At the same time, he wished to make Paris the first great city of the Industrial age" (Giedion, p.744, 1972). Napoleon III and Baron Eugene Haussmann transformed Paris between 1853 and 1869, bringing about the first comprehensive planned demolition that affected not only the macro form, infrastructure, transportation, military and leisure, but also involved a form of social engineering known as *Hausmanization*. Napoleon III planned a Grand Boulevard on the residual spaces left behind after the demolition of the walls that would circulate around Paris, and since then, this 250-meter wide belt of greenery and a tree-lined boulevard have been serving the needs of the further industrialized and mobilized urban life (Jacobs, Macdonald & Rofe, 2002, Kostof, 1992, Giedion, 1972). Relph refers to this demolition as Place Destruction (Abbau), and claims it was one of main reason behind placelessness.

The second case in this part is the Regent's Park and Street Project, designed by John Nash at the beginning of the 19th century. The project was based on the desire of the

Prince Regent to connect Carlton House to the new Royal Park "It followed not so much the example of the London squares as that trend that begins with Versailles and continues through the Bath crescents and the arrangement of some other English towns, and has its continuation in our period" (Giedion, p.737, 1971). The Regent's Park and Street Project was a thematic development that included some large-scale residences (*Thematization*). Due to the public dislike of crowded cities, this was one of the first goals of the modern townscape movement in urban history, having grown out of a desire for the creation of non-urban scenery close to the urban place. Furthermore, the idea of a boulevard pointed to an endless street surrounded by "housing walls", and the (Stylish) apartment house emerged as the basic unit of that street.

Industrialization expedites urban transformation. The evolution of the Roman *Castra* to Palmanova took about 1,200 years, while in only 300 years, medieval walls were destroyed, cities grew by approximately ten times, and Haussmann-type demolition artists took the first steps into the modern cityscape. Improved printing techniques enlarged visions and dreams, while desires for urban place were diversifying and growing. Moreover, engineering techniques and machinery gained the ability to transform the urban environment within a stunningly short period of time, meaning that the tempo of transformation was increasing day-by-day.

> "Haussmann stands as a symbol of the nineteenth-century faith in production. It took Borromini nearly thirty years to erect a small church and even then it was not quite complete. Louise XIV spent a lifetime building Versailles, despite the fact that he had all the resources of France at his disposal. In seventeen years, by a mixture of determination and foresight, Haussmann created the great nineteenth-century city. The speed of the work reflects the tempo and enterprise of the industrial expansion – that- gave rise to it" (Giedeon, p.762, 1971).

Hausmann's success was sustained by the uniform, standard rules of design, and it was industrial mechanization that produced that uniformity. Kostof, however, criticized mechanization, complaining that the "… building code, granite curbs, gray asphalt sidewalks, cobblestone roadways … standardized street lamps, metal tree grates, pillar-shaped billboards, kiosks, and cast-iron drain pipes …" produced a monochrome

street view (p.162, 1991). Such standards create a certain sense of sameness that were cited as the main reason for the placelessness of geographies by Relph (1976). Norberg-Schulz, on the other hand, blamed the stereotypic environment as main driver of loss of place.

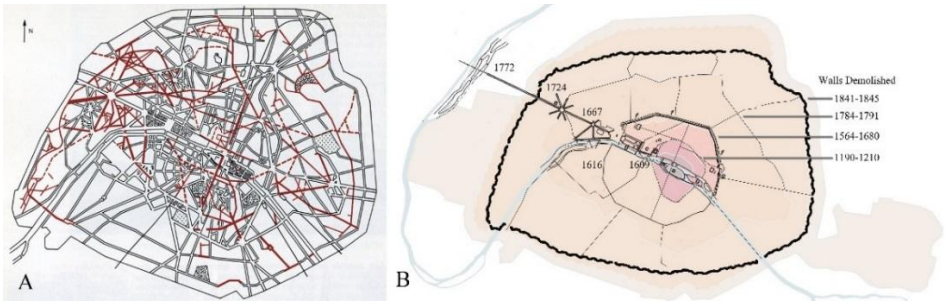

Figure 5.13: Transformation of Paris (A: Haussmann's Boulvards, B: Haussmann's administrative sub-units)
Source: Adapted and Redrawn from A: Moholy-Nagy, p.150, 1968, https://architokyo.files.wordpress.com/2012/06/1858_paristravaux_dubyp861.jpg (Last Accessed: 16.09.2015), B: Personal Rendering from Morris, p.201, 1972, Kostof, p.103, 1992, https://en.wikipedia.org/wiki/City_walls_of_Paris (Last Accessed: 16.09.2015)

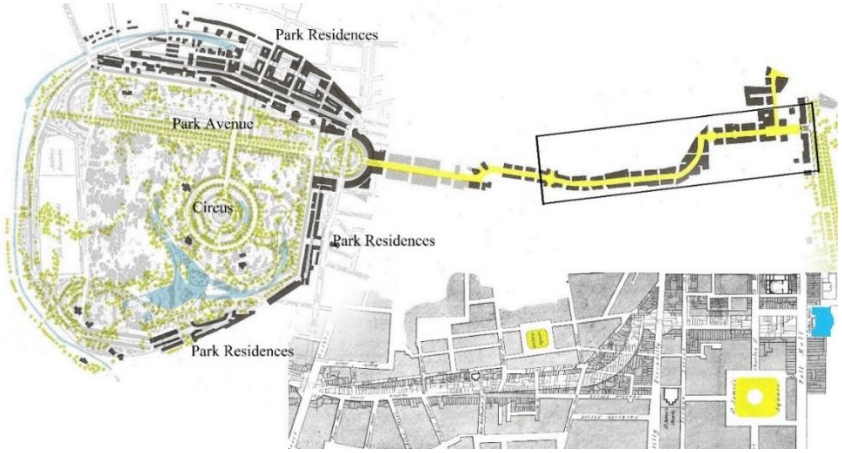

Figure 5.14: Regent's Park & Street Project of John Nash
Source: Adapted and rearranged from Bacon, pp.200, 208, 1967, Morris, p.268, 1972

5.3.Transforming Means of Context (Space-Time):

The meaning of space-time is hidden behind the history of the built environment, which has undergone a transformation with an incremental tempo. In fact, the context of the environment has become more transitory.

> There are "… two categories of historical facts. One category we call **constituent**, the other we call **transitory**. The distinction becomes necessary if the historian is seen as not exclusively concerned with individual styles and periods and with the comparison of their similarities and differences: if one sees history, like biology, as concerned with the problem of growth and development – not to be confused with progress" (Giedion, p.389, 1955).

Mechanization[72] made it possible to demolish and design urban environments in their entirety within a short period of time. Mechanization eases transformation, industrialization is a product of technology, and machines are the basis of technology. "Industry unconsciously creates new powers of expression and new possibilities of experience" (Giedion, p.167, 1971). Indeed, industrialization legitimizes transitory facts through mechanization. Nowadays, we so deeply concentrate on urban transformation that we overlook just how devastating it can be, and transformation itself brings about lack of place. Furthermore, if the tempo of urban transformation increases, more loss is created. Tuan categorizes urban transformation into two: crowding and spaciousness (1977), with crowding referring to an increase in the density of the population within the built environment, and spaciousness being the consciousness of one to rationalize himself/herself within the environment (Tuan, pp. 51–66, 1977). The thesis proposes three types of urban transformation concerning the means of space-time that have fluctuated throughout history with increasing tempo: horizontal crowdedness, vertical crowdedness and spaciousness.

1. a. Horizontal Crowdedness, being the density of the settlement laid on the ground. The demolition of walls was one of the major milestones that enabled the cities to expand horizontally, and the limits of horizontal crowding are governed by the bodily transportation made possible by such media as horse-drawn carts, railways and the automobile.

1. b. **Vertical Crowdedness**, being the density of the settlement rising out of the ground, relying on basic engineering and materials used in architecture, such as elevators, locks, tinted glass, steel frames, etc.

[72] See also Appendix C - Mechanization

2. Spaciousness, being one's consciousness of the environment. "Tools and machines enlarge man's sense of space and spaciousness" (Tuan, p.53, 1977). When crowdedness reaches its limits, a new level of consciousness is needed, and it is likely that this brought a new mode to man's experiencing of the built environment. This type of transformation goes beyond the physical settings of the environment, proposing a new tempo of life by establishing new kinds of relationships, but there are also spatial consequences.

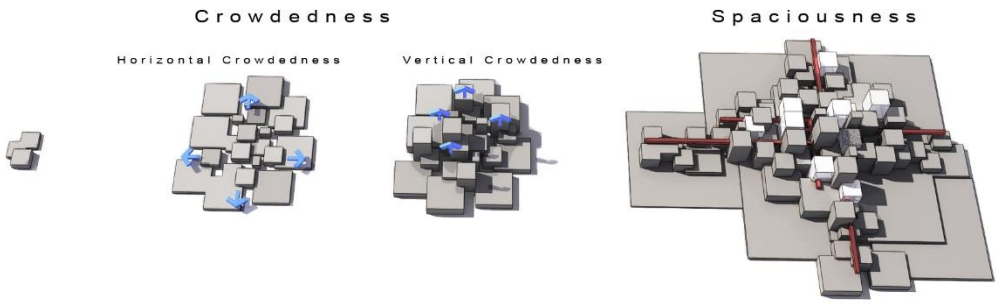

Figure 5.15: Abstract Model of Spaciousness & Crowdedness in the Built Environment
Source: Personal Rendering

5.3.1.Urban America:

The "new world" offered a new opportunity for a desired life, and its discovery was a result of the lack of place being felt in Europe. The United States brought a new scale to urbanity in terms of crowdedness and spaciousness.

The first and the most important aspect in this section is the horizontal crowding in America, where the grid pattern is a simple and powerful regulator. Bacon stated that, "the interaction of the classical rationalism of Vitruvius and the intellectual speculations of the Reinessance scholars finally received expressions in the material fact of new cities in the New World", although the US grid pattern was considerably different to that of the Greeks (p.203,1967), being imposed with no respect to the geography. There are two types of identifiable grid pattern: axial and modular. One of the first colonies of the "new world", using a modular grid, was Savanah, which imitated "the work from the colonial through the Victorian Period" (Bacon, p.205, 1967). In contrast to European cities, Savanah was an unwalled military camp with

no existing core. The accumulation of modular units expanded until the city reached a geographical threshold in 1856. In early Greek civilizations, the grid was a representation of "living together" i.e. Greek synoecism; however, "In its effect the American grid is the most far-reaching instance of a planned pre-urban cadaster"[73] (Morris, p.335, 1972). The American grid proposes merely a "routine" colonial settlement rather than an "order" of life, with uniformity dictated within a military discipline. Hence, the grid has lost its meaning after being transferred and transformed by the Asuro-Babylonians, Greeks, Romans, Roman Military Camps and finally, the American colonies, providing solid evidence of what has been lacking throughout urban history.

Major L'Enfant's Washington D.C. is another example of horizontal crowdedness, being formed on an axial grid pattern. The United States settled on an urban experience that was based on the European pattern, and L'Enfant's Plan for Washington D.C. was an imitation of the Versailles spatial composition. L'Enfant was born in Paris "and, spent his childhood in and around the palace and park of Versailles" (Morris, p.350, 1972). He replicated his childhood experience with professional knowledge. Moholy-Nagy indicated[74] that L'Enfant's inspiration was not produced "the same" however, it was replicated, and something was lost during the replication.

[73] Cadastral use of grid is a rural-originating function rather than an urban entity. See Kostof, p.133-135, 1991

[74] "A juxtaposition of the main axis of Washington D.C., with that of Versailles clearly indicates L'Efant's source of inspiration. While there is absolutely nothing wrong with a successful adaptation, Washington's spatial monumentality is incongruous to American urbanism.

The Capitol and not the White House, as planned, assumed the dimension of Versailles, ruining L'Enfant's scale. The odd-shaped little parks and circles presented and upkeep problem a democratic government was unwilling to resolve, and the monumental emptiness of the ceremonial axis restricted the available space for government buildings so drastically that barracks started to cover what for L'Enfant must have been holy ground." (Moholy-Nagy, p.146-151, 1968)

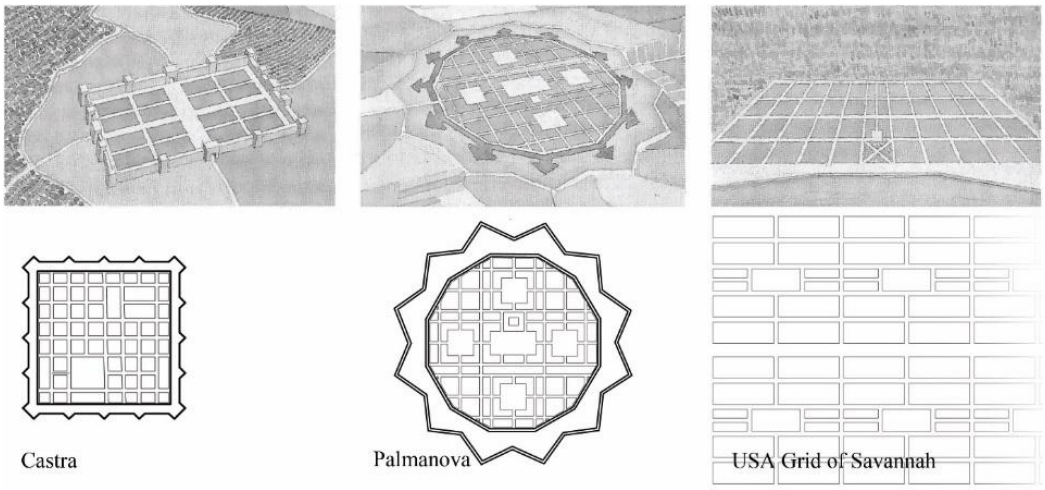

Figure 5.16: Modular US Grid
Source: Edited and Redrawn from Kostof, p.10, 1992

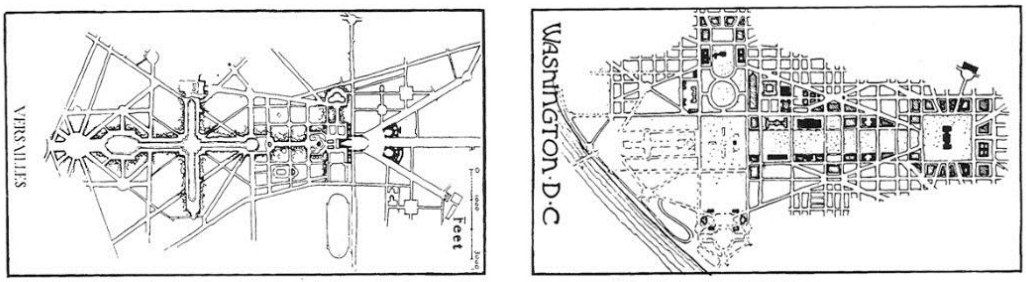

Figure 5.17: Axial US Grid
Source: Edited from Moholy-Nagy, p.146, 1968

The third example is Manhattan. New York's population rose from 100,000 to 1 million between the 1800s and 1850s, and the Commissioners' Plan of 1811 expanded the city's grid to Manhattan Island. "The rocky topography of Manhattan was ignored by the plan; it also allowed for inadequate open space and had other faults which have been revealed by time" (Morris, p.344, 1972), and urban life came to rupture the natural geography of the site. Moholy-Nagy stated, "It [the Commissioners' Plan] ignored all topographical features and the aesthetic-recreational value of a continuous waterfront" (p.226, 1968). The loss of the natural environment introduced a new revolutionary urban scene. The lack of a natural landscape led to the creation of Central Park, being a *Parkway* – i.e. a new US imitation of the Boulevard – project, rather than just a park project. According to Jacobs, Macdonald and Rofe, "The system would

connect Prospect Park with Central Park and other parks yet to be built and link up with parkways throughout the region. Overall … The parkway was intended to structure new residential neighborhoods and serve as 'linear' parks connecting residential areas to the larger parks" (p.84, 2002). The Olmstedian vision of non-urban imagery triggered the US suburban movement, however the lack of place existed due to the human-made urban scenery.

Figure 5.18: Comissoner's Plan of Manhattan 1811 (with and without Central Park)
Source: Edited and Redrawn from Kostof, p.122, 1991, Moholy-Nagy, p.226, 1968

The second main heading in this part is vertical crowdedness. Chicago started to resolve its vertical crowdedness problem in the urban core after 1880 with the implementation of high-rise buildings. With new technical and engineering techniques (Steel-frames, elevators, etc.), high rise apartment buildings were constructed. "These Chicago apartment houses represent the first steps toward a kind of large-scale housing which is very different from anything we find in Europe" (Giedion, p.380, 1971). "The vision seemed to presage the birth of yet another legendary cosmopolis, like Babylon of antiquity with its Tower of Babel, and so a new age" (Kostof, p, 324, 1991), yet those buildings were short-lived, unlike the Colosseum, Parthenon, and such. They were consumed, used, demolished and then reconstructed. According to Giedion:

> "The importance of the school for the history of architecture lies in this fact: for the first time in the nineteenth century the schism between construction and architecture, between the engineer and the architect, was healed. This schism marked the whole preceding part of the century. With surprising boldness, the Chicago school strove to break through to pure forms, forms which would unite construction and architecture in an identical expression" (p.382, 1971).

The Chicago School had solved the problem between architecture and engineering by creating a new schism between architecture and urban design and planning. The city

was a mechanical organization rather than an organic entity, and was so dominating that it did not give the opportunity to individuals to rationalize themselves within the environment. Lack of place is inevitable outcome of this temporary, stereotypic and mechanical environment.

In brief, the imitation of European parks produced a Central Park-type development, and the non-urban image created the American *suburb*, while the European boulevard model was imitated and transformed into the *Parkway*. The Greek Grid model underwent a significant transformation when adopted in the United States, leading to the creation of some new urban features and the loss of others.

Last but not the least, the Chicago School created a new way of thinking for urbanism in the United States, being a great playground for such professionals as William Le Baron Jenney, Luis Sullivan, Martin Roche and Frank Lloyd Wright. "After 1910, the best brains of Europe began to understand what he (they) had achieved in America" (Giedion, p.426, 1971). It was a new human habitat that had been created inevitably throughout history, resulting in the evolution of a new spaciousness due to the new abstract relational bases.

> "The three-dimensional space of the Renaissance is the space of Euclidean geometry. But about 1830 a new sort of geometry was created, one which differed from that of Euclid in employing more than three dimensions.
>
> Cubism breaks with Renaissance perspective" (Giedion, p.435–436, 1971).

The new spaciousness was constructed by the artificial human-made environment. Within this temporary, crowded and artificial urban environment a chronic lack of place emerged. It is very hard to evaluate the new spaciousness as a positive or negative achievement, although it does prove that lack of place is becoming permanent.

5.3.2.Modernism & Rebirth of Urban Utopias:

> "As materials for culture, the stones of the modern city seem badly laid by planners and architects, in that the shopping mall, the parking lot, the apartment house, elevator do not suggest in their form the complexities of how people might live. What once were the experiences of places appear now as floating mental operations" (Sennett, p xi, 1992).

Modern urbanism arose in response to the chronic lack of place. Urban ideals and utopias were seen rarely before the 20th century. The first stage of Modernism was an utopist reaction to the dislike of the crowded and mechanized environment. As Sennett stated above, this could be attributed to the floating mental experience of old places that are lacking in new urban life. "Howard, Wright and Le Corbusier hated the cities of their time with an overwhelming passion. The metropolis was the counter-image of their ideal cities, the hell that inspired their heavens" (Fishman, p 12, 1982).

The ongoing urban experience of the Chicago School and the US cases had a profound effect on the initial stage of the Modern movement. The picturesque suburb and the Olmstedian vision of the anti-city was championed in reaction to the industrial metropolis. At those times, Sir Ebenezer Howard (1850-1928) published his book *Garden Cities of To-Morrow*. Visiting Chicago before its publication, he experienced the frightening congestion and decentralization, stating, "These crowded cities have done their work; they were the best which a society largely based on selfishness and rapacity could construct, but they are in the nature of things entirely unadapted for a society in which the social side of our nature is demanding a larger share of recognition" (Fishman, quoted from Howard E. 1902 p.50-57, p.38, 1982). Howard's Garden City was a response to the lack of place being felt in overcrowded industrial districts and slums,[75] although his ideas[76] promoted decentralization and suburbanization in Europe. "As a mass phenomenon, suburban commuting had to await the revolution of modern transport systems – turnpikes, railroads, streetcars, subways, buses, and ultimately, the automobile" (Kostof, p.59, 1992). Between 1900

[75] It should be emphasized that there were no motor vehicles on the streets when Howard penned these words.

[76] Although his ideas were identified as the "school of a rose-covered cottage", it has already been used in thematic housing projects even after the millennia (Moholy-Nagy, p.258, 1968).

and 1920, urban planners, designers and engineers remained helpless to the rise of the automobile, which had been proposing a new consciousness for the experiencing of urban life. The city came to achieve a new scale of relations that was organized depending on the car-based urban experience. Industrial parks, shopping centers, corporate campuses and residential suburbs have come to fill the edges of the city.

> "Of course the older pedestrian city always within a landscape of value-laden symbols of urban culture, and conditioned by a spontaneous public life. The edge city's high-speed vehicular promenade, made in isolation through an unbounded settlement, must be seen as a radically new way of experiencing urbanity, stripped clean of the centralizing presence of a civic realm." (Kostof, p.69, 1992)

"The American grid transformed into automobile territory", while suburbs turned into *human farms*[77] and thematic/uniform places came to surround the edge of the city (Kostof, p.277, 1991). Amid all this, manifestations of placelessness and non-places could be observed everywhere. Due to the huge decentralization and mobilization in the worlds' cities, the first town planning conference was established: the RIBA Conference 1910. The city would be mobilized inevitably; Arturo Soria Y Mata (1844-1920) was one of the first scholars who put transportation forward as a principal feature of his Linear City project for Barcelona (1882), which included a segregated railway at the heart of the city and separate zones for residences by the greenbelts and agricultural areas. Tony Gariner (1869–1948) was one of the first scholars to accept the inevitable rise of mechanization and industrialization, and proposed his utopian city, C*ite Industrielle*[78] 1901–04, as the first example of the contemporary city. Frank Lloyd Wright (1867–1959) can be said to have felt the same lack of place, as can be understood from the title of his book: *The Disappearing City* (1932), and he bemoaned the need for space in the human habitat in his Broadacre City – an innocent futuristic concept that was designed to live in peace with the effects of mechanization. That said, his vision was still optimistic. According to Wright,[79] the automobile provided "the

[77] Idiom taken from Wachowski Brother's Film "The Matrix" Series 1999–2003

[78] "There is a clear separation of all the different functions of the town: work, residence, leisure, and transport. Industry cut off from the town proper by a green belt … Garnier even includes a speedway, or racetrack for cars, as well as testing grounds for moteur d'aviation."(Giedion, p.789, 1971)

[79] "Wright brought forward these elements and changed them, opened our eyes to their secret potentialities and their inherent beauty, revealing their symbolic strength as a poet does in showing forth

possibility of new communities based on a new mastery of time and space" (Fishman p.123, 1982). What he was aiming for was a new medium for the contemporary environment.

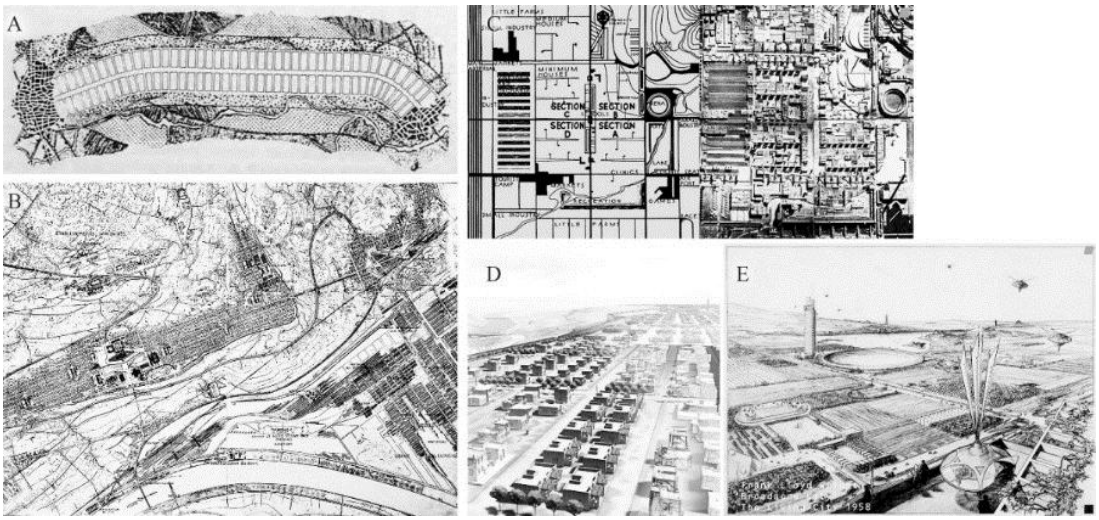

Figure 5.19: Early 20th Century Urban Utopias
Source: Edited and Redrawn from A: Linear City of Arturo Soria y Mata https://upload.wikimedia.org/wikipedia/commons/6/6e/Ciudad_lineal_de_Arturo_Soria.jpg (Last Accessed: 21.09.2015). B: Plan of Tony Garnier's Industrial City. Giedion, p.788, 1971. C: Broadacre City model and plan. http://www.mediaarchitecture.at/architekturtheorie/broadacre_city/2011_broadacre_model_en.shtml#abb_model (Last Accessed: 21.09.20115). D: The 3d illustration of Garnier's Cite Industriale. http://www.aria.archi.fr/blog/wp-content/uploads/2010/04/pict010.jpg (Last Accessed: 21.09.2015). E: Broadacre City
http://www.mediaarchitecture.at/architekturtheorie/broadacre_city/2011_illustration_002_en.shtml#abb_illustration (Last Accessed: 21.09.20115)

Ultimately, Modernism was a reaction to the rapid transformation in the mechanized environment. According to the first modernists, regardless of we did throughout history, crowdedness would always be a problem of civic life. The human-environment relationship is always in a state of transformation –the human habitat is mechanized and mobilized, and mechanical interposed relations are a natural outcome of this process. In such an environment, urban designers and architects search for "pure abstract interrelations" between the human and the environment, but whatever they propose as a solution will later be identified as Non-Place.

what inner content of feeling the trees and mountains, the rivers and lakes, of his native land hold for him and for us."(Giedion, p. 405–407, 1971)

The second stage of Modernism started with the European imitation of the US urban experience, mainly by the Dutch and Germans at the end of World War I. Wars bring about a destruction of cities, and so in the post-war period, the environment offered the chance to put modern theories into practice. Moreover, the destruction left behind by wars legitimizes urban renewal and transformation, and this has been identified as one of the greatest reasons behind placelessness through place destruction (Abbau) (Relph, 1976). In 1917, the Dutch *De Stijl* group was established through the efforts of Berlage to introduce Wright's work in Europe. They defined themselves with such keywords as *rationalist, mechanistic* and *abstract*, gaining fame in Europe following Theo van Doesburg's 1919 article, *De Stjl*. According to Piet Mondrian:

> "The life of contemporary cultivated man is turning gradually away from nature; it becomes more and more and an a-b-s-t-r-a-c-t life …
>
> … The genuinely Modern artist sees the metropolis as abstract living converted into form; it is nearer to him than nature, and is more likely to stir in him the sense of beauty ..."(Benham, quoted from Mondrian, p.150–152, 1960)

Earlier, in 1907, Deutsche *Werkbund* had been established by a group of German architects, industrialists and designers under the leadership of Hermann Muthesius. Deutsche Werkbund sought "beauty applied to mechanical production". The design quest of Deutsche Werkbund inherited to the Bauhaus School (Giedion, p.480, 1971). Walter Gropius united Deutsche Werkbund and the Bauhaus School of Design, which was established in 1919, and the school then moved from Weimar to Dessau in 1926 to be closer to the industrial facilities. Giedion expressed the role of the Bauhaus as being to "unite art and industry, art and daily life, using architecture as the intermediary" (p.489, 1971). Banham called the method of teaching in the Bauhaus School "learning by doing" (p.278, 1960).

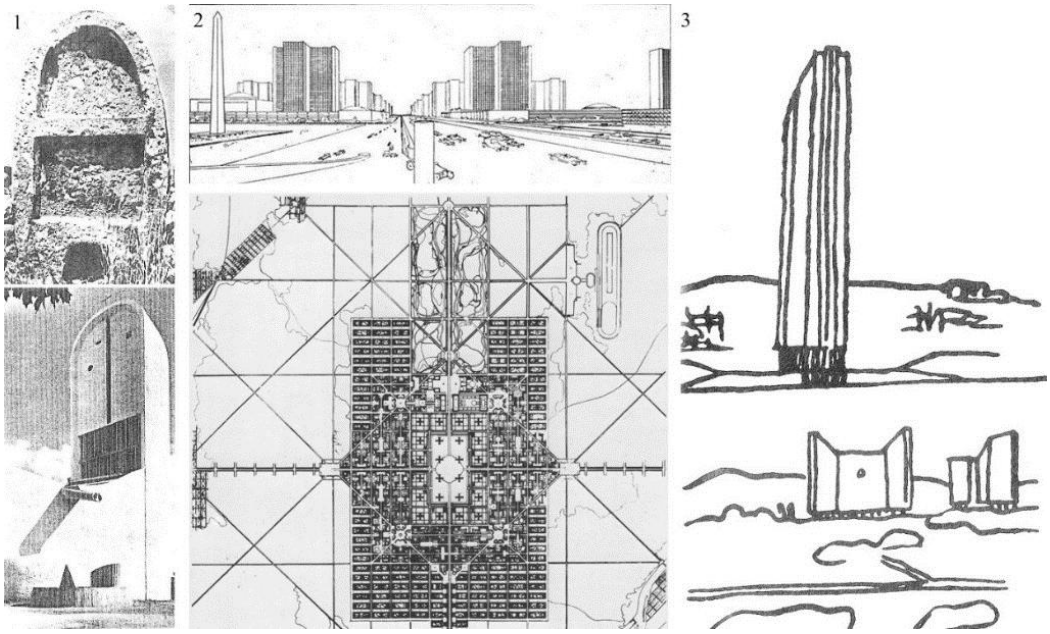

Figure 5.20: Competing Works of Le Corbusier
Source: 1) Tower of Ronchamps design inspired from *Stele* in from Giedion, p.577, 1971, 2) Contemporary City for Three Million People 3d sketch from http://www.brynmawr.edu/emeritus/gather/Lane/images/001.jpg (Last Accessed: 22.09.2015) plan from Moholy-Nagy, p.269, 1968, 3) Unites d'Habitation from Moholy-Nagy, p.273, 1968

Le Corbusier's (1887–1965) great contributions to modernism have been evaluated both positively and negatively. He sought "inner similarities" behind forms, demanding a symbolic continuity throughout history, but contrary to this perspective, his *contemporary city* was a standardized vast-scale urban development that accepted no symbolic inheritance from the old places. The projects of Le Corbusier created a Haussmann-type of destruction, placed on a genuine *tabula rasa*. His urban ideal *Contemporary City* of 1922, and its derivatives, the *Ville Radieuse* (Radiant City) and, *Le Plan Voisin* for Paris, were aimed "to create a complete environment in which man, nature, and the machine would be reconciled" (Fishman, p.189, 1982). Later, in 1949, Le Corbusier designed *Unite d'Habitation,* a high-rise residential unit connected to the city via highways, showing no respect to geography. Referred to as a machine for living, Le Corbusier had designed a complete human-made urban scene.

The purpose of CIAM in 1928 at La Sarraza was decided by Le Corbusier: "The aim of CIAM was to deal with problems that could not be solved by the single individual"

(Giedion, p.696, 1971). The idea of CIAM was that a single individual would not be able to rationalize him/herself in such a huge imperceptible urban scene, as clear proof of lack of place. The Charter of Athens (1933) was the fourth CIAM Congress. According to Kostof, it mandated a "streetless city", thus proposing Non-Places within the urban scene (p. 235, 1992). Finally, architects and urban designers founded the "international style", which was identified as the main reason behind the loss of place by Norberg-Schulz.

> "CIAM (Athens Charter, 1933) dogma focused on the incompatibility of the sleek new transportation technologies with the slowly evolved husks of existing city. In practice, the Modernist alternative was a composition of freestanding buildings, set in a diffuse landscape of foliage and organized by a loose grid of high-speed arteries" (Kostof, p. 154, 1991).

In short, the reflections of Le Corbusier and the Charter of Athens transformed urban life under the mastery of machines.[80] The sixth Congress of CIAM was postponed for 10 years until 1947 due to the outbreak of World War II. The rebuilding of cities after the destruction of the war led the CIAM Architects to once again think about human habitation, and the theme of the ninth[81] CIAM Congress was the human habitat. The architects of CIAM made a demand for places as a result of the lack of place being felt in the urban habitat, and the Athens Charter appeared at first to be a useful background, although it now "appeared that something more was needed to grasp the spirit of a city" (Giedion, p.702, 1971). The final stage of Modernism was launched following the ninth CIAM Congress, when a group of young modernist known as Team X stood up against the "international style" that was being imposed by the CIAM Architects. CIAM was entrusted by Team X architects at the 10th congress in 1956 (Giedion, 1971). This revolutionary group concentrated on spaces, as well as their relations and experiences, and it was at this conference that the term "cluster"[82] was first introduced.

[80] The best example of the ideas put forward in the Athens Charter was Lucio Costa and Oscar Niemeyer's Pilot Plan for Brasilia. Moholy-Nagy referred to it as a new urban fascism, stating that "Any Roman army commander would have been instantly at home" (p.196, 1968).
[81] The task of the Congress was expressed by Giedion as: "The spatial relations of the individual within the family, taking into consideration the cycle of human life; his relations within the community; his needs for quiet and seclusion; his needs for contact with nature. The isolated individual of today should be transformed from a passive on-looker to an active participant in community life" (p.703, 1971).
[82] The concept of clustering would be the first step towards megastructures and group forms.

Team X architects "share the new belief in the importance of emphasizing the three-dimensional quality" of space and the "multiuse of space" (Gutman, p.252, 1986). For Team X, the city was neither an organism nor a machine for living, in that city (place)-making is an organic process. Team X's approach championed modernism, and their ideas remain valid even today.

In the late 1960s, Bacon introduced the route of urban design and architecture as a research into dynamism, movement, time, change and the three dimensions of space (p.280, 1967). In 1960, Kevin Lynch published his famous book: *The Image of The City*, in which his emphasis was on the legibility of the city, and it is apparent that he must have been feeling how the urban structure was becoming more illegible. In 1961, Gordon Cullen's book *Townscape* "define[d] town-planning much like Sitte as the art of relationship" (Kostof, p.91, 1991). Cullen focused on the *serial vision, human scale* and the *content*, apparently aware that the speed of movement and scale was destroying the art of visual relationship.

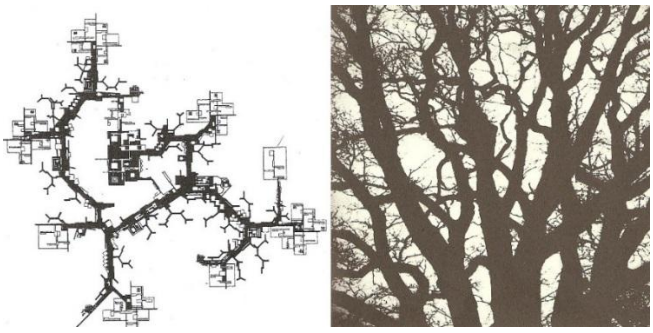

Figure 5.21: Organic Growth of Cities: Candilis, Josic, and Woods, Project for Toulouse-Le-Mirail in 1961
Source: Edited from Ungers, p. 102,103, 2013

As things become crowded and incomprehensible, human logic partitions them to allow them to be understood – unfortunately, this is the spirit of the modern rational mind. Thematization, museumization, disneyification, zoning and land-use regulations are basic outcomes of such behaviors, and result in a lack of place.

> "… partitioning its experience into rooms. The logic is one of breaking something into its component parts; then you know what it is … Separation created isolation in the family as much as it did on the street" (Sennett, p.27, 1992).

In conclusion, modernism brought a new level of consciousness to the table by way of mechanized experiences. Mechanization eases transformation by partitioning experiences, and partitioning expedites loss. The means of the space-time consciousness has gained such an immense speed of transformation that the built environment may change every couple of years, or even more often. Günay stated that urbanization is "so fast that debates on urban form have been delayed", and in the meantime, urbanization takes one step forward (p.42, 1988). So, one's lost his initiation to rationalize himself on urban space. Unfortunately, the experience of place needs to go beyond spatiality in such a temporary environment.

Figure 5.22: The Modern City in Progress
Source: Personal collage from Kostof, p.120, 121, 1992 & http://www.brynmawr.edu/emeritus/gather/Lane/images/001.jpg (Last Accessed: 22.09.2015)

5.4.Lack of (Spatial) Experience:

> "**Urban Process:** In cities only change endures. Patterns of habitation are provisional, transformed by the ebb and swell of residency and subject to forces that work with the sluggishness of the millennial erosion of stone, or with the speed of a stray spark. The spatial order cast by houses, monuments, and solid city walls is gradually subverted by generations of seemingly innocuous tinkering, as in the case of Rome, or is deliberately revamped through massive interventions, like those of Haussmann's Paris. In recent times, modern warfare's generous capacity to destroy has been seized as an opportunity to experiment with the latest trends in urban design: lacking a war, mass demolitions can be legislated to similar ends. Even towns in which history is preserved in brick and mortar are the products of urban process, here made self-conscious and painstakingly negotiated" (Kostof, p.280, 1992).

The urban process is going through such rapid transformation nowadays that even attempting to experience a space may be a waste of time. Space has been the obstacle in the human-environment relationship. The spatial stack of modernism produced a virtual experience rather than a physical one. After the 1960s, engineers began to focus on decreasing the need for a physical presence to keep pace with the rapid transformation. Modernist geometry was clearly captivated by the wind of change as

the logic of the rational mind fragmented the urban place settings. In this regard, the main cause of a lack of (Spatial) experience is changes in the rhythm of (urbanization) life. In fact, the urban process is in progress, and involves both crowdedness and spaciousness. Reaching the limits of crowdedness brings a new level to spaciousness. Amid the urbanization process, formal experiences are transformed into informal, and even technical, experiences, and the adoption of these experiences created a new level of consciousness in the geographical environment. Although place is a formal experience, informal and technical experiences create a lack of place.

The rhythm of life has accelerated, and humans have become bodily mobilized, shifting from horseback riding to the automobile. From the 1960s to the 1980s, radio, television and the telephone were immobile, but since that time devices have become mobile and more personalized. Interactive communication, data storage and processing devices began to be mass produced in the 1990s, including personal computers and mobile phones, and after the turn of the millennium, the Internet, wireless networks and smart mobile devices provided us with virtual social stages that allowed interaction with visually and audio-lingually. The means of mobility have also changed, in that while it once referred to bodily movement before the turn of the millennium, it now refers to the portability of the device, and machines have now become compulsory extensions of our senses, creating *space-like structures.* This is referred to as virtual experience. Today, we renew our devices and virtual stages each year to keep up with the rhythm of life, and the virtual experiences we engage increases our ability to change/transform our environment through a fragmentation of the senses. "For a complete experience, it is essential to have a combination of five senses", however the virtual experience was lacking in odor and tactile senses (Barlas & Çalışkan, p.7, 2006). A virtual experience will never be a substitute for a physical experience, but it may be replaced partially through a partitioning of one's experiences. "Human existence is a continuous regrouping of matter and ideas" (Moholy-Nagy, p.11, 1968). The ongoing design efforts throughout history have been fragmenting the urban space. "Mono-functional land-use decisions resulted in a strict segregation of spaces, consequently ending up with the [resulting in an] atrophy of an indispensable

condition of “public spaces: functions, which give a definite multiplicity and complexity of experience” (Sennett, p.297, 1992). “Concurrently, earlier streets that led to foci once important but now of no relevance will decline or atrophy” (Kostof, p.51, 1991).

In brief, urban progress is an atrophic process. What makes the lack of place a growing psychological problem after modernism is that human-environment relationship has been transforming faster than the life-span of the individual. In other words, a lack of place is observable in one’s lifetime. It can thus be inferred from history that the accelerating rhythm of life and the ongoing urban progress have been decreasing (spatial) experiences, which are key for a place. As a result, a chronic lack of place has settled in the urban environment, and evidence of this is increasing; abandoned places and mono-functional land uses, or modern urban elements (thematization, museumization, disneyification) that are not only products of modernism, but also a result of the human-environment relationship throughout settlement history.

5.4.1.Metamorpolis:

> “In human nature, the tendency to change and the desire for continuity live side by side” (Giedion, p.859, 1971).

There have been two main attitudes towards place-making in history, referred to here as avant-garde and conservative.[83] The megastructures that emerged after the 1960s can be considered part of the avant-garde approach, and it was within these structures, that the space-time consciousness of inhabitants started to be taken under artificial control, and in the following years, they will be designed for self-sufficiency and self-renewing. On the other side, group forms and clusters of units can be considered part of a conservative approach. Returns to the street – town acts and ecotopias – were seen

[83] This duality has been implied earlier in this thesis: progressists and culturalist by Günay (1988), tradition and utopia by Rowe & Koetter (1983), authentic and inauthentic by Relph (1976), constituent and transitory by Giedion (1971), and ebbs and swells by Kostof (1992).

as an extension of the Townscape movement up until the turn of the millennium, when virtual space emerged as a new experience. The human foothold was taken out of the geography, and so the lack of place became chronic, following the prevailing experiences. Starting in the middle of the 1960s, preliminary definitions of lack of place started to be published, in *Non-Place* (Webber et al. 1964; Augé, 1995), *Loss of Place* (Norberg-Schulz, 1979) and *Placelessness* (Relph, 1976).

To begin with, this section will provide examples of the conservative attitudes witnessed in place-making in reaction to the lack of place felt in the human-made urban environment. The first example is *Woonerf* in the Netherlands. The automobile had partitioned movement and land uses into separate districts, and, according to Kostof, after sample pedestrianization projects saw success in many business districts of Europe, (For example: Nurmberg, Strøget), car-free shopping centers and zones started to become popular in urban areas (p. 239-240, 1992). The Dutch planning and design tradition, however, reconciled the automobiles and pedestrians, although they should have felt a lack of place following the automobile invasion of the urban environment. Rather than separating vehicles and pedestrians, they unified the two with residential streets called *woonerf.*[84] Second, Ernest Callenbach published his book *"Ecotopia"* in the 1970s, which was influential in the rise of ecologic utopias as a counter act to mechanization. One of the prime examples of conservative attitudes was Paolo Soleri's [85] *Arcosanti* – an experimental utopia in Arizona, built in the middle of the desert. It is evident that Soleri felt a lack of place when choosing to escape from the crowded cities to the Arizona desert.

[84] In 1981, the idea was supported by Donald Appleyard in his book "Livable Streets". It should be noted here that Appleyard's in-depth interviews carry evidence of the lack of place created by the automobile, and that the *woonerf* was a result of this.

[85] Soleri purchased the land in 1956 to build his vision of "arcology", as a combination of ecology and architecture. Interestingly, Soleri's native city (Turin) was a perfectly shaped military outpost, like Palmanova (Kostof, p.160, 1991).

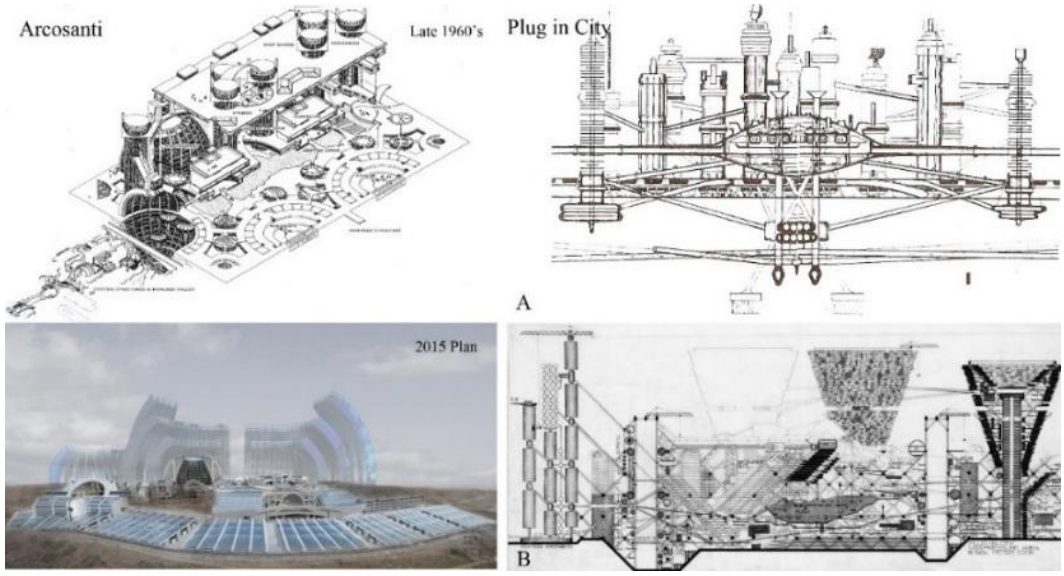

Figure 5.23: Urban Utopias after the 1960's: Arcosanti & Plug-in City
Source: Edited from: Arcosanti: Kostof, p. 160, 1991 (Late 1960's sketch), http://arcosanti.org/node/10137 (Last Accessed: 22.09. 2015) (2015 Plan), Plug-in City A: Moholy-Nagy, p.15, 1968, B: Lin, p.221, 2010

Second, avant-garde architects and movements create megastructures that take man's foothold from the ground. For instance, *Archigram* was established in the 1960s, bringing together a group of like-minded architects. "Archigram would seem to make picturesque images of the future" (Rowe & Koetter p.40, 1983). Plug-in-City of Peter Cook (1964), the Walking City of Ron Herron (1964) and the Instant City were prominent utopias that attempted dream and design beyond mobility. Furthermore, Yona Friedman, one of the youth architects attending the 10th CIAM Congress produced a spatial city in which he "help[s] preserve the urban dweller's privilege of moving about on foot he lifts the city by its own bootstraps, so to speak" (Rudofsky, p.196, 1969), with motorized and pedestrian traffic and the infrastructure being totally separated and fragmented. Moreover, Christopher Alexander published his famous essay *"A City Is Not a Tree"* in 1965 in reaction to rational logic and its fragmentary schema. He stated, "If we make cities that are trees, they will cut our life within to pieces" (p.61, 1965). Giedion showed his agreement to Christopher Alexander with this heading "the city: no longer an enclosed organism", referring to a new type of relationship (p.857, 1971), and put forward a new abstract-relational geometry that was based on interaction. According to him:

> "… vocabulary of this generation: "**megastructure**" and "**group form**."
>
> The **megastructure** consists of a large-scale structural framework encompassing many needs and functions. One of the first such megastructures was Kenzo Tange's Project for building over the bay Tokyo, whose different horizontal levels allow for an unhindered flow of traffic.
>
> **Group form** consists of relations between buildings. The importance of the individual building is subordinated to the importance of the **collective group form**. This is the description of one of the word-makers of this generation – Fumihiko Maki … who has studied … the renewal sections of Tokyo" (p.863, 1971).

Both Tange and Maki, as members of the Metabolist movement, reached "a new geometry of relationships" in their collaborative projects (Bacon, p.227, 1967), with the movement being structured on the experiences and ideas of Team X. Tange, Kurokawa, Kikutake and Isozaki were excited about the approach of "city making is an organic process", and in particular, "Maki described a megastructure as an open structure made possible by present-day technology and a human-made landscape upon which a city would thrive and continue to progress through its different metabolic cycles" (Lin, p.113, 2010).

Finally, the Metabolists[86] went beyond the duality of modernism in urbanism. Rather than merely finding a new geometry, they concentrated on understanding the nature of transformation, and saw the city as going through a metabolic cycle, like a living organism –*incomplete*, *open-ended* and *fluid*. As a metabolism, they surmised that the city could be in an anabolic or catabolic state (Lin, p.98–99, 2010). According to them, all reactions are in the hands of urban designers or planners, even though it is impossible to design a city as a whole. "While a design is an individual creation, a form is a collective act", which leads to a "sequential group form". The city is in an open-ended process within a reciprocal relationship (Lin, quoted from Fumihiko Maki, p.114-117, 2010). After 1970, the World Exposition in Osaka and the economic crises of 1973, the Metabolists turned their eyes to the Middle East and Africa. In 1972, their projects included the Nagakin Capsule Tower of Kisho Kurokawa (renovated in 1998),

[86] Some of the more pioneering works can be stated as Kiyonori Kikutake's Marine-Ocean City (1958); the Floating City Tower-Shaped City; Noriaki Kurokawa's Wall City (1960); the Agricultural City (1960); the Helix City; and Arata Isozaki's City in the Air (1961).

and the Computer-Aided City of Isozaki, which pioneered the following millennium's urban development. Their design attitudes and reflections have already been observed in the urban environment. It is interesting that much of their projects were not built except; but it goes to show that the urban place undergoes such a rapid transformation that become outdated even while still in design.

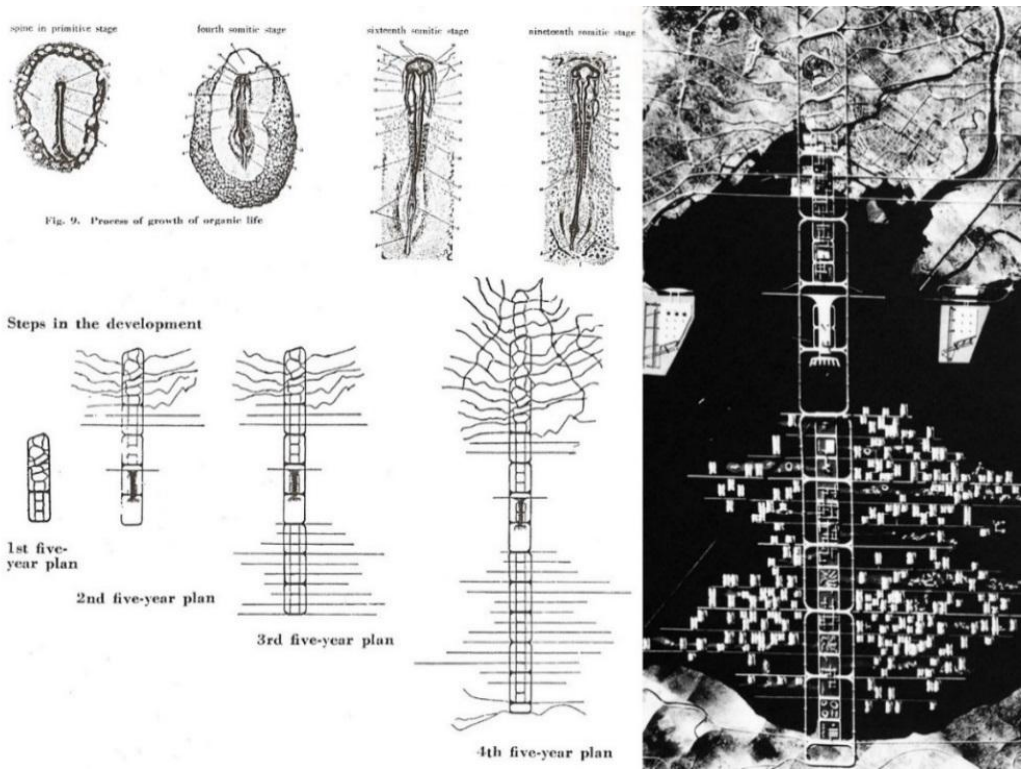

Figure 5.24: Kenzo Tange's Tokyo Bay Project
Source: Edited from Lin, p. 147, 160, 2010

> "With the shift from the second industrial age to the digital age, the accelerating flow of population, materials, and information within the global network have fundamentally changed conceptions about **permanence** and **transience**. As a result, cities are transforming dramatically as the emphasize of urbanism is shifting from concrete structures to more complex and flexible organizations as well as "soft" (digital and ecological) infrastructures. Networks carrying flows of information now reach every part of the world, creating a virtual but truly unified community" (Lin, p.248, 2010).

The basis of human-environment relation are the notion of space-time relation. The notion of space-time has been in incremental transformation throughout the history especially after mechanization. First, bodily transportation and automobile mobilized the human being. Then, mechanized engineering solutions made it available to live in

high-rise skyscrapers and megastructures. Finally, the virtual platforms have fragmented our senses from geography. They break our roots from geography; digital age proposes us flexible and fluid structure supported by *soft infrastructures*, rather than using concrete structures. Geography is the basis of place. Without the perception of geography, there would be no place. Virtual space has no ability to be a place. So, as Lin stated above, soft solutions of digital age create more lack than concrete structures. Thanks to the artists who present us evidence of lack of place, such as: Dan Haga expressed it as Urban Atrophy (2011), we got to know the abandoned places of USA. Also, Tim Franco, a photographer from Shangai, presented his famous book Metamorpolis at 2009.

In brief, today's *Metamorpolis*es have been created within anabolic and catabolic[87] reactions throughout the whole urban history. The lack of place is just the catalyzer of these reactions constituting to the inverse sense of place. It is the inverse of places. The urban progress has been bringing more lack because, the transformation of it went beyond the spatial dimension. The reactions have been creating waste spaces, Non-Place and, "no man's land" more than ever before, by separating our bodies from the geography.

5.5.Concluding Remarks from History:

This chapter has examined lack of place within the history of the urban place. Lack of place is a complementing will in need of place, and the desire to make (urban) places

[87] "…**Anabolic Tendency**, which initiates all articulate existence by creating patterns of forces. This tendency, however, does not create "geometrical order" by itself. Organized form requires the interplay of the structural theme, brought about by the anabolic tendency, with a second cosmic tendency, which strives toward tension reduction and thereby attains the simplicity of orderliness." (Arnheim, p.34, 1971).
"The **Catabolic [Destruction]** effect, then, increases entropy in two quite different ways: directly by fortuitous destruction of patterns that are unlikely to be rebuilt by mere chance; indirectly by removing constraints and thus enlarging the range of tension reduction, which increases entropy by simplifying the order of a system." (Arnheim, p.28, 1971).

is a result of this will. It is unfortunate that timeless, placeless and rapidly evolving metamorpolises are the latest creation of the human race.

The thesis will draw two conclusions from a descriptive urban history analysis (DHA). First, the concepts of lack of place, being *Non-Place* (Webber et al. 1964; Augé, 1995), *Loss of Place* (Norberg-Schulz, 1979) and *Placelessness* (Relph, 1976) refer to specific breakthroughs at the start of the phenomenon of lack in history; however, according to the DHA, the manifestations, signs and examples of lack of place existed before the concepts emerged. In this regard, the concepts of lack of place fail to fully explain the phenomenon, what is lacking is not only space, mass or composition, as the experience of the urban context is also losing throughout the urban history. In short, the concepts lack conceptual sophistications and contextual depth.

The thesis will make a historical inference about place-making at the end of the DHA. Lack of place is the main motive behind place-making, and the main stages of place-making in urban progress are *crowdedness* and *spaciousness*. Urbanization is an ongoing decomposition of place-making efforts within the environment, and place and lack of place are two facets of this continuum. Furthermore, the continuum of place-making is entropic in nature, in that the former can never begin again in the environment.[88] In this respect, lack of place is a gradually increasing phenomenon, in that the urban process is in constant progress.

In short, the DHA revealed that the concepts of lack of place fall short of explaining the phenomenon of lack, and so lack of place needs to be redefined and re-conceptualized for the further stages of this study.

[88] The former can never again begin in the environment, as place has an irreversible time component.

CHAPTER 6

THE ATROPHY OF PLACE

This chapter proposes the term *Atrophy* for a re-conceptualization of the phenomenon of lack. Atrophy of Place is the inverse of place-making, and can be thought of as a loss of urban place experiences. Urban place is the core of collective experiences. The (urban) place experience is not a static phenomenon, being dependent on context (Space-Time) and meaning. The urban place can be considered as an ongoing process in progress, and this process will be outlined using the term *Entropy* (in the human-environment relationship). It can be said further that urban progress has been leading the continuum of place-making, while at the same time causing *Atrophy of Place* in the built environment.

Atrophy of Place refers to more than a mere historical loss of physical urban settings, describing rather the process of loss in the format of place experiences throughout urban history. Accordingly, this part of the thesis makes an analysis of the loss of lived-in experiences in urban place, and is compiled in three main parts, an outline of the definitions, a presentation of the different types of Atrophy of Place and an analysis of the available data (observational & experiential).

The thesis will first define atrophy, for which the law of entropy has been adopted from physics for identifying the deprivation in human-environment relationship. This chapter explains and clarifies the concepts of Entropy, Atrophy and Atrophy of Place. Atrophy of Place is a natural outcome of the entropic human-environment relationship. Second, some empirical observations will be presented in this chapter about Atrophy of Place, including examples from around the world and from the author's personal

archives. The data gathered during the field study will be classified under the main framework of the thesis, as outlined in the method chapter. Accordingly, the four main types of atrophy, being Symbolic-Physical Atrophy, Contextual Atrophy, Temporal Atrophy and Experiential Atrophy, will be expressed depending on the field observations. Finally, this chapter details a research for the collecting of experiential data about lived-world experiences by presenting the results of a questionnaire comprising responsive and close-ended questions together. The information gathered from the urban inhabitant respondents will be decoded in line with the main framework of the thesis. The questionnaire, being a semi-scientific experimental research, is then validated with other sets of data (documental and observational), to ensure the reliability of the thesis.

In brief, the main aim in this chapter is to propose the term *Atrophy of Place* instead of identifying it by the terms of *lack of place* (including Non-Place (Webber et al. 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976)). In the following stage, the types of *Atrophy of Place* will be classified depending on their manifestations. This chapter will also present a search for consistency in between the results of the observational and experiential data analysis methods, and with the previous findings of the research, to prove the reliability of the study.

6.1. Entropy, Atrophy & the Atrophy of Place:

This part explains the concepts of Entropy, Atrophy and Atrophy of Place, and identifies the nature of the relationship between them. Why does this study deal with such concepts? Before explaining this, it will be helpful to define their common use in science and to establish their relationship with human and environmental sciences. In the following sub-parts, each concept is going to be explained in detail.

First, Entropy is the second law of thermodynamics in physics. The first law of thermodynamics states that “energy may be changed from one form to another but is

neither created nor destroyed" (Arnheim, p.8, 1971). In other words, a system has an equilibrium. To continue, the Second Law states that the system always has a certain state of disorder that is known as "the entropy of the system". According to the laws of physics, the entropy of the system is always on the increase. In this regard, the universe is always under the compulsion to transform from an orderly state of equilibrium to a disorderly state of equilibrium, since the system has an irreversible component – time. In short, entropy is a universal law of disorder compromising every living and non-living thing.

Second, the term atrophy is adapted from biology and neuroscience. "Atrophy is the partial or complete wasting away of a part of the body" (www.wikipedia.org, last accessed: 29.11.2016), being in such a slow decay that atrophy would seem to be "normal". It may be disregarded in the short term, but it would be catastrophic to ignore it in the long term.

> "The term implies that the atrophied part was of a size normal for the individual, considering age and circumstance, prior to the diminution. In atrophy of an organ or body part, there may be a reduction in the number or in the size of the component cells, or in both." (www.brittanica.com, last accessed: 16.07.2013)

Finally, the thesis adopts these terms for application in the theory of place. Atrophy refers to the partial or complete decay of a place and/or any component(s) of a place in the urban environment. It is claimed that due to the entropy in the human-environment relationship, Atrophy of Place occurs. Entropy is the result of the continuum in place-making, and the significance of place-making lies in the fact that the built environment is also a sign. For this reason, this chapter will be holding the research on the basis of sign and symbols.

The environment is experienced and then signified by the individual, who produces signs to rationalize his or her existence in space – this is the basis of place-making, and the urban place is the place into which those signs are built collectively, in that being an individual (personal experience) is at the very core of the collective

experience[89]. That said, the signs (of urban place) may not be signified by others and/or the next generations, and the meanings of signs may be transformed or fragmented. This is the factual result of the continuum of place-making. In other words, it has been a result of the entropy in the human-environment relationship throughout settlement history. This process leads to an inevitable loss in urban place experience and creates a sequence of lack of place that is known as Atrophy of Place.

In summary, this chapter not only provides a grand approach to the phenomenon of lack, but also modifies the theory from the side of (lack of) components in place identity. Atrophy of Place draws a grand framework for the phenomenon of lack that refers to the state of partial or complete decay in place experiences.

6.1.1. Entropy:

Entropy is the second law of thermodynamics[90], and is the universal law of disorder. The Law of Entropy has not only affected the field of thermodynamics, but has also

[89] "Place the need for it at the very heart of individuality, at a stroke making it impossible to dissociate the question of collective identity from that of individual identity … not just because it is social construction, but also because any representation of the individual is also representation of the social link consubstantial with him" (Auge, p.19, 1992).

[90] The Laws of Thermodynamics:

Zeroth Law (The Notion of Thermal Equilibrium): "If two systems are in thermal equilibrium with a third system, they are in thermal equilibrium with each other." (Guggenheim, p.8, 1946).

First Law (The Conservation of Energy): "The fundamental property of energy can be described in alternative ways:

1. "When several systems interact in any way with one another, the whole set of systems being isolated from the rest of the universe, the sum of the energies of the several systems remains constant.
2. When a single system interacts with the rest of the universe (its surroundings) the increase of the energy of this system is equal to the work done on the system by the rest of the universe (its surroundings)" (Guggenheim, p.9, 1946).

Second Law (The Law of Entropy): There are two types of events in the environment: reversible and irreversible events. Entropy is the state of equilibrium of the system in a certain moment in time. "If a system is in complete equilibrium, any conceivable infinitesimal change in it must be reversible. For a natural process is an approach towards equilibrium, and as the system is already in equilibrium the change cannot be a natural one. Nor can it be an unnatural one, for in that case the opposite infinitesimal change would be a natural one, and this would contradict the supposition that the system is already in equilibrium" (Guggenheim, p.14, 1946). So, this state of equilibrium in the system would be better identified as entropy, because there are irreversible events in reality.

Third Law (Residual Entropy): The third law is related to the different entropy constants between two states. "Specifically, the entropy of a pure crystalline substance(perfect order) at absolute zero

had a great impact on other fields of science, based on the proposed universal philosophy behind the concept. It was after the mid-19th century that the concept started to appear also in the fields of engineering, sociology, anthropology, economics and psychotherapy, among others. There have been two main types of entropy mentioned in science literature, specifically in physics and in social sciences. The term entropy first appeared in the second law of thermodynamics as a physical theory in the late 1850s, when it was dubbed by German physicist Rudolf Calsius, but it was not until the 1950s that the impact of physical entropy and its philosophy began to affect the social sciences. The theory of social entropy is a philosophical reflection, just as it was for Albert Einstein. According to Einstein, entropy is the only law that it will never be overthrown (Quoted by Rifkin & Howard, p.50, 2003).

> "A law is more impressive the greater the simplicity of its premises, the more different are the kinds of things it relates, and the more extended its range of applicability. Therefore, the deep impression which classical thermodynamics made on me. It is the only physical theory of universal content, which I am convinced, that within the framework of applicability of its basic concepts will never be overthrown" (Quoted by Rifkin & Howard, p.50, 2003).

The same holds true for human and environmental sciences. The universe has an order, just as a person has order in his/her mind, and representations of one's order are constructed by places in the (built) environment in which they live. "Order is a necessary condition for anything the human mind is to understand" (Arnheim, p.1, 1971). On the other hand, "A lack of correspondence between outer and inner order produces a clash of orders, which is to say that it introduces an element of disorder" (Arnheim, p.2, 1971).

> "Order is a prerequisite of survival; therefore the impulse to produce orderly arrangements is inbred by evolution. The social organization of animals, the spatial formation of traveling birds or fishes, the webs of spiders and bee hives are examples.

temperature is zero. This statement holds true if the perfect crystal has only one state with minimum energy" (https://www.boundless.com, Last Accessed: 21.06.2017). That said, there is no perfect condition in nature, and so the systems move from a more probable state to less probable state of order. The entropy of the defined system residues some of its components, however, the universe neither loses nor gains energy.

> A pervasive striving for order seems to be inherent also in the human mind- an inclination that applies mostly for good practical reasons" (Arnheim, p.3, 1971).

A place is the result of an orderly arrangement in one's mind; although the environment is willing to create a state of disorder, due to the irreversible component of time. Irreversible events cannot return to their initial states, but they can create a new equilibrium, and this may seem like a new order in the state of disorder. That said, something else happens while reaching a new equilibrium. "The system changes from a less probable to a more probable state and its entropy increases" (Arnheim, p.25, 1971). While the partitions of the system produce a new equilibrium that oscillates between order and disorder, the entire system evolves incrementally in a disorderly way.

> "The vision of such harmonious striving for order throughout nature is disturbingly contradicted by one of the most influential statements on the behavior of physical forces, namely, the second law of thermodynamics. The most general account physicists are willing to give of changes in time is often formulated to mean that the material world moves from orderly states to an ever-increasing disorder and that the final situation of the universe will be one of maximal disorder." (Arnheim, p.7, 1971)

Humans strive for order to survive between the two facets of the desire of place and the lack of place. Place-making is an irreversible phenomenon as the time component in place identity. It is impssible to rebuild old places. The irreversible nature of the phenomenon increases the entropy of the environment, and that is why the entropy of the built environment has always been increased over time.

In summary, the law of entropy ensures the decay of everything in the universe over the course of time (Rifkin & Howard, p.14, 2003), and this is not just a metaphor; it is a fact[91]. Humans are temporary beings who always desire place. Every generation deserves their places, and recognizing this, the philosophy of entropy is adopted for the structure of the main vision of the thesis. But how can environmental sciences

[91] "Ancient Greek Cities had known that the history is a cyclical decay. According to them, the history has been ongoing from order to chaos. That is why they eager to build their cities with a limit. Minimum destruction to the environment was one of the main idea behind the built environment. 2000 years later on, modernism brought the idea that "the history is straight line in time; humankind might improve or decadence its own history" (Rifkin & Howard, p.p. 17-21, 2003).

benefit from the law of entropy? It is necessary for this study to throw light on where such entropy occurs and to point out the consequences. So what is lost as a result of the entropy in the human-environment relationship?

6.1.2. Entropy in Human & Environmental Sciences:

The increased entropy in the human-environment relationship is the natural outcome of the continuum of place-making. The fundamental units of place are signs and symbols, and humans are collectors and manipulators of those signs and symbols. The human brain works as an amplifier of symbols, transforming them into signs in the built environment, and experiences build the bridge between the mind and the world through living symbols in the mind and signs in the built environment. In other words, human beings rationalize themselves through their experiencing of the signs.

> "A symbol is a repository of meanings. Meanings arise out of the more profound experiences that have accumulated through time. Profound experiences often have a sacred, other-worldly character even though they may be rooted in human biology" (Tuan, p.145, 1974).

> "The mind, reaching far beyond the stimuli received by the eyes directly and momentarily, operates with the vast range of imagery available through memory and organizes a total lifetime's experience into a system of visual concepts. The thought mechanisms by which the mind manipulates these concepts operate in direct perception, but also in the interaction between direct perception and stored experience, as well as in the imagination of the artist, the scientist, and indeed any person handling problems 'in his head'" (Arnheim, p.294, 1969).

The significance of signs varies depending on how symbols are experienced throughout space-time, and so shifts may occur in the signs of the symbol(s). There can be two reasons for such shifts. First, (built) signs may have a different significance, depending on the dimension and the type of experience, or the person experiencing them. Second, the human is a temporary being, and so symbols may lose much of their power within the temporariness of lifetime. Accordingly, the human-environment relationship can be considered entropic in time. Furthermore, entropy in the environment may be increased with new types of relationships. With the increase in the entropy of the environment, new kinds of technologies are created, and structuring

a new energy state of the environment, together with new social, economic and political institutions [92](Rifkin & Howard, p. 68, 2003). These offer also new states of equilibrium, providing different types of experiences between humans and the environment. Once a new interaction level (equilibrium) has been reached, there is no turning back. As stated previously, as the environment comes to a new equilibrium, something else is also happening. The entropy of the new state of equilibrium is greater than in the old state.

There are two relative states of order that depend on the entropy of the previous state: high entropy order, and low entropy order. The built environment has been evolving to a high entropic order, with places being destructed, destroyed or decayed, and rebuilt. This is unstoppable, although a certain level of decay may be maintained. If the cycle of the continuum of place-making increases, the state of entropy would be high; but if the built signs are preserved, the entropy of the built environment can be maintained at a certain level. In other words, the signs within the built environment should be designed in such a way that their symbolic power is preserved[93]. That said, the experience of place must also be preserved, as otherwise the signs of the built environment will become fragmented[94] into discrete symbols, leading to decay in the temporariness of the human-environment relationship. This brings new experiences while the older ones are lost, and this thesis refers to this loss as atrophy, being a result of entropic function of the human-environment relationship.

[92] "Çevrenin entropisinin artmasıyla yeni bir teknoloji türü yaratılması ve yeni toplumsal, ekonomik ve politik kurumların şekillendirilmesiyle birlikte yeni bir enerji çevresine kayış görülür" (Rifkin & Howard, p. 68, 2003).

[93] In fact, the signs of the built environment will get lost inevitably, no matter what we do. In this regard, one should be abstained from the (design) acts or attitudes that increases the entropy of the human-environment relations.

[94] Rather than remaining a sign in the built environment, they return to their initial order, which is symbol formation in one's mind.

6.1.3. Signs, Symbols, Experience & Place:

Before explaining the nature of atrophy, it is first necessary to explain how signs lose their symbolic significance during the course of the human-environment relationship. This part of the thesis must deal with the types of signs and their significant character to understand the process of atrophy clearly. Entropy within the built environment results in a "… considerable loss of richness. This loss is best filled by other means …" (Canter, p.104, 1977), and by other means, Canter is referring to fragmented symbolic experiences. Fragmentation creates a new level of equilibrium in the communication between humans and the environment. The new level in the mode of communication between humans and humans, and between humans and the environment, has brought new experiences, while old experiences are lost.

> "The debate stems from the nature of the architectural sign which is radically schizophrenic in nature; partly rooted in tradition, in the past, indeed in everyone's experience as a child crawling along flat floors and other normalized elements, and partly rooted in a fast changing society with its new functional tasks, new materials, new technologies and ideologies" (Jencks et al., p.111, 1980).

In general, there are three basic levels of signs that are interlaced with each other, and these three levels are also the basic symbolic character of a sign that is also interchangeable during the experience of a place. According to the basic definition given by Charles Morris;

> "Syntactic: deals with the combination of signs (such as the ways in which words are put together to form sentences) without regarding to their specific significations (meanings) or their relations to the behavior in which they occur thus ignoring the effects of those meaning have on those who interpret them.
>
> Semantic: deals with the signification of signs in all modes of signifying that is, with the ways in which they actually 'carry' meanings.
>
> Pragmatic: deals with the origins, uses (by who those actually make them) and the effects of signs (on those who interpret them) within the (total range of) behavior in which they occur."(Broadbent et al. p.476, 1980, quoting Morris, 1938).

The trilogy of signs can be related to the identity of place. In environmental sciences, syntactic signs deal with the context of a place, referring to the spatial attributes of volumes in space and their combinations over time because, "space carry meaning"

(Lang, p.206, 1987). Semantic signs deal with the meaning of a place, depending on the syntactic function. "The symbolic meaning of a particular pattern of the built environment also depends on its context" (Lang, p.205, 1987). Pragmatic signs, on the other hand, deal with the experience of context and meanings of those signs. The richness of a sign is dependent upon its variety in character, while the symbolic significance[95] of a sign is dependent upon how the place is experienced.

Table 6.1: The levels of signs constitutes the identity of place.

Level of Signs	**Components of Place Identity**
Syntactic	Context
Semantic	Context + Meaning
Pragmatic	Context + Meaning + Experience

Source: Personal Rendering from Broadbent, p.476, 1977

The levels of signs are strictly bounded with past experiences, and the familiarity between past experiences designates the present. In the widest sense, the place is a familiar experience that exists between lived experiences and learned patterns of experiences. "A sign that I was able to understand only on the basis of past experiences, on the basis of an experimental code" (Eco et al., p.14, 1980). "Everything we know is based on past experience, the residues of our sense perceptions" (Broadbent et al. p.125, 1980), but at the same time, our senses are limited, creating a gap between reality and mind. The functions of signs may lose their symbolic significance if one could not experience (live) them on the environment. The built environment is merely a residue of our wasted experiences while the designer aims to build new places.

Here, the thesis will provide information about the content and functions of a sign. There are two functions of a sign, as explained in Chapter 2, Part 2.2.3, known as the denotative and connotative functions. Furthermore, an architectural sign may have three types of content, being iconic, symbolic and indexes. An icon is a sign that refers

[95] The significance of urban place is dependent upon the symbolic value of a sign. Measuring the value that signifies a place is not the issue here, and is probably not possible. Nevertheless, one should know what kind of attributes contribute the significance of place experience. For this reason, see Parts: 2.2.1 and 2.2.1.4.

to objects by means of their graphic quality. “A symbol is a sign which refers to the object that it denotes by virtue of an associational law” (Broadbent et al. p.315, 1980). Index “is a sign, or representation which refers to its object not so much because of any similarity of, or analogy with it, nor because it is associated with general characters which that object happens to possess, and because it is in dynamical (including spatial) connection, both with the individual object on the one hand and with the senses or memory of the person for whom it acts as a sign” (Broadbent et al. p.315, 1980). The significance of a sign is a result of the amount of interrelations established in between human and environment. If one is unable to associate the content of a sign’s symbol within the built environment, a loss of richness will be experienced in the significance of signs.

Urban design and architectural signs may have triple significance in their index, icon or symbol, or any combination of those signs. Place is signified, and also experienced, on them. The function and the content of a sign have different expressions in between mind and senses, between one (human) and the other. Urban design and architecture is lacking (in content and/or function) because signs have a different symbolic expression from one’s experiential interface (the symbolic interface of mind and reality) to other’s. Every individual and each collective experience is different. Furthermore, no human-made expression can reflect the richness of the content of an experienced sign, and so the act of experiencing a place itself also creates lack. In fact, although the content may be identical, the place experience is unique. Relph, quoting Gurvitch, said:

> “The I’s communicate with the Other principally through the medium of signs and symbols of which the only possible basis is the We, which gives the effective validity. To wish to separate I, the Other and the We, is to desire to dissolve or to destroy consciousness itself …” (1971 p.xiv).

In short, there is always a symbolic gap between the lived-in experiences and stored past experiences between the mind and senses, and in between the individual and others. This creates a tension between the human and the environment, and is the core reason behind loss of experience. Place experience is atrophic in nature, and atrophy

also captures the context and meaning component of place identity. In this regard, a loss of place experience is also a loss of other contents in place identities.

6.1.4. Atrophy:

The term atrophy is an analogy borrowed from biology, and it is also used to describe the results of entropy, even in physics. According to Hawking and Mlodinow, atrophy is a scientific principle of selection imposed by the universe (p.p. 153,154, 2010). In this thesis, atrophy is used to identify the entropic progress in the human-environment relationship. What is atrophied is the content of the symbols of a built urban or architectural sign.

The familiarity between the senses and the mind creates place experience, and place is an isomorphic experience that is lived, and contains stored patterns of experiences. If isomorphism was not established between what is experienced and what is stored, the place in question would not be identified. "Perhaps the real problem was more fundamental: a split between sense and thought, which caused various deficiency diseases in modern man" (Arnheim, p.v, 1969). The split is established during the process of perception and cognition[96], and is mediated by signs and symbols. In this regard, establishing an isomorphic medium is crucial for a continuous place experience. Tuan agrees, stating that:

> "The gap remains because human beings boast a highly developed capacity of symbolic behavior. An abstract language of signs and symbols is unique to species. With it human beings have constructed mental worlds to mediate between themselves and external reality. The artificial environment they have built is an outcome of mental process- similarly, myths, legends, taxonomies, and science." (Tuan, p.13, 1974).

[96] "A review of what is known about perception, and especially about sight, made me realize that the remarkable mechanisms by which the senses understand the environment are all but identical with the operations described by the psychology of thinking. Inversely, there was much evidence that truly productive thinking in whatever area of cognition takes place in the realm of imagery." (Arnheim, p.v, 1969)

The interface between environment and human is established through the process of perception and cognition, and this is also where the process of symbolization occurs. Symbolization may or may not[97] come out as a place in the built environment[98]. The process of perception starts with the identification of the isomorphic symbols in one's mind in the lived world.

> "The process of perception is a case 'isomorphism' an information-preserving transformation in which two complex structures can be mapped onto one another, so that to each part of one structure there is a corresponding part in the other structure, with the two parts playing similar roles in their respective structures. Isomorphism creates meaning in the mind, and thus increases knowledge, since the potential symbols in forms – initially without any intrinsic meaning – acquire meaning" (Lozano, p.p. 263–264, 1990).

> "The information obtained from the environment has symbolic properties that give it meaning, ambient qualities that evoke emotional responses, and motivation messages that stimulate needs. An individual also assigns value and aesthetic properties to it. Because human need to experience the environment as a pattern of meaningful relationship, past experiences form the basis for understanding the new" (Lang, p.90, 1987).

One should seek to identify familiar spatial patterns of experiences to recognize place experience. A place is an isomorphic plane that structures one's experiences between the senses and the mind. If the isomorphism is not established, the place starts to lose its symbolic content, and atrophy occurs, with the atrophy here referring to the symbolic degeneration of the significance of a place. On the other side, the main problem is the increasing entropy of the human-environment relationship. The differences between senses and the mind are making it harder to recognize the isomorphism in this rapidly transforming environment. According to Tuan and Arnheim, and also the results of the DHA, "the gap" or "the split" is increasing, and so this thesis claims that this entropic process would better be identified as Atrophy of Place rather than being linked to the concepts of lack of place.[99]

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[97] If it does not come out as place, it becomes a desire of place. The desire of place is prerequisite to the sense of lack of place.

[98] "The relationship between the physical World of urban forms and human beings starts with the visual-psychological process of perception and cognition, but it does not end there. The way in which our eyes and brain function is a universal process; but what we perceive depends to a large extent on our past experience" (Lozano, p.261, 1990).

[99] This is because lack of place is a lack of conceptual sophistication and contextual depth.

6.1.5. Atrophy of Place:

> "The history of city growth, in essence, is the story of man's eager search for ease of human interaction" (Webber et al. p.86, 1964).

The format of the relationship between humans and the environment has been transforming, and the tension between the two brings about a transformation in the built environment. This transformation brings with it new forms of place experience, while the old forms and their places are lost. The nature of the transformation is entropic. As time passes, it will become harder to enhance urban place experiences within such a highly entropic environment. Hence, place experiences are being lost all the time during in urban history. This process is referred to as Atrophy of Place. It could be said that our common experiences are becoming more private in the urban environment. Collective signs in the urban environment have been transformed into private symbols and private places. Privatization eases the transformation of signs into individual symbols, and private places are more prone to change or becoming lost than common places within the temporariness of the human being. In this regard, temporary places become ordinary. "Human beings can rectify this terrible scarcity" day by day, or will we be able to hinder it? (Sennnet, p.74, 1992).

> "Human places become vividly real through dramatizing the aspirations, needs, and functional rhythms of personal and group life" (Tuan, p.178, 1977).

The Atrophy of Place is identifying not only the loss of experience component in place identity but also, expressing the whole phenomenon of lack. The thesis proposes the term Atrophy of Place for three main reasons. First and foremost, previous works contain a number of conceptual discrepancies, and propose concepts related lack of place that are short of conceptual sophistication and contextual depth. In this regard, it is hoped that this thesis can fill the conceptual and contextual gaps in the existing theories. Second, the thesis aims to identify an inverse sense of place-making that is compatible with the framework of place identity, for which Atrophy of Place brings a new insight into the theories of place and lack of place. Last but not the least, the thesis aims to come up with a definitive answer to the question: "Can Atrophy of Place be eliminated, or not? And if it can, how?"

Atrophy of Place is an identification of environmental deprivation, explaining historical progress as entropy in human and environmental sciences in the field of urban design and planning, in that the existing concepts of lack of place: Non-Place (Webber et al. 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and, Placelessness (Relph, 1976) fail to capture the essence of the phenomenon of lack. Unlike these existing concepts of lack of place, Atrophy of Place makes no negative (nor positive) judgement about the phenomenon of lack, suggesting rather that the phenomenon of lack is a natural outcome of the human-environment relationship. According to the qualitative comparative analyses made in existing literature, the indicated symptoms of lack may still remain in our places. Although shopping malls, thematic places, highways, roads, etc. are identified as manifestations of lack of place, they may also manifest as places,[100] as urban inhabitants have always been dissatisfied with their environment (Spivack, 1974, Deleuze & Guattari, 1984, Webber et al. 1964; Augé, 1995, Norberg-Schulz, 1979, Relph, 1976). The sense of the atrophy has been felt by several authors, as expressed previously, in that it is merely a dissatisfaction with the built environment, since place experience has always lost symbolic content, as a historical fact.

Atrophy of Place proposes a holistic framework for the concepts of lack of place, but rather than disregarding the concepts of lack of place, it embraces Non-Place, Loss of Place and Placelessness as prerequisites of the atrophy. Atrophy of Place brings contextual depth to the theory of place, and it is complementing the concept of place from the inverse sense of place. Relph also saw place and placelessness as being in a complementary relationship, but he was unable to express and/or identify this within a consistent framework. Accordingly, this thesis aims to resolve the problem that Relph was unable to find a clear answer for. According to him:

> "It would not be realistic to investigate the phenomenon of place without attending to the parallel phenomenon of placelessness – that is, the casual eradication of distinctive places and the making of standardized landscapes the results from an insensitivity to the significance of place" (Relph, p. ii, 1976).

[100] They may be less valuable, but they are places above all.

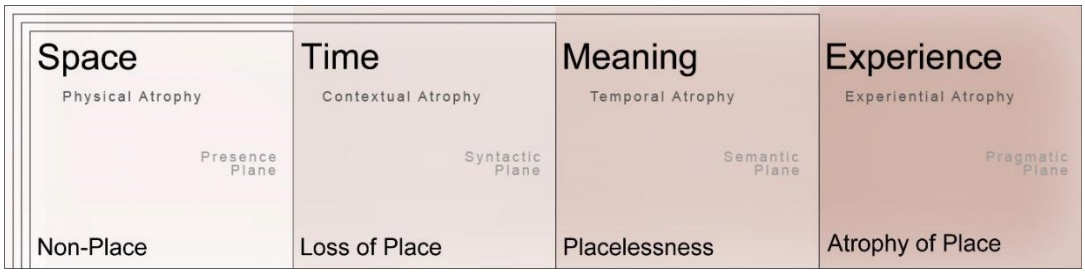

Figure 6.1: The Atrophy of Place
Source: The thesis' own framework. Concept adapted and reinterpreted from Webber et al. 1964; Augé, 1995 (Non-Place); Norberg-Schulz (Loss of Place), 1979; Relph (Placelessness), 1976; Broadbent et al., quoted by Morris (Syntactic, Semantic and Pragmatic), 1977.

Atrophy of Place provokes new insights[101] (conceptual sophistication) into the theory of place and lack of place, based not only on evidence from history, but also the historicity of the concept. Relph proposed authenticity and inauthenticity for the identification of placeslessness, as summarized in Chapter 3, however the urban process is ongoing. Places cannot be identified as "old-authentic" or "new-inauthentic." Evidently, urban places may lose significance while being experienced by humans, and so the proposed concept should have a historicity, and a conceptual depth that goes beyond time. The thesis aims to sustain historical continuity by building its framework with the adaptation of the entropy in the human-environment relationship. The Atrophy of Place is the result of entropy in human-environment relationship.

Relph identified the phenomenon of lack as "the casual eradication of distinctive places … results from an insensitivity to the significance of place", however his concept fails to explain the process of eradication and its manifestation throughout the defined process of loss (p. ii, 1976). This thesis puts forward an explanation for the process of eradication. Atrophy of Place is related to losses of significance in signs, and how they are eager to lose their significance within the entropic human-environment relationship. Referring to the significance of signs built in the urban environment, this thesis proposes four categories of Atrophy, being Physical Atrophy

[101] Conceptual sophistication

(Space), Contextual Atrophy (Space-Time), Temporal Atrophy (Space-Time-Meaning) and Experiential Atrophy (Space-Time-Meaning, Experience). As can be seen in the bracketed descriptions, the conceptual depth of the phenomenon of lack is also associated with the loss of components in place identity. These categories will be further defined and exemplified in more detail in the observational data analysis section.

Figure 6.2: The Place is …
Source: Personal Archive from Arycanda Antique City in Turkey

Last but not the least, the thesis must answer the question: "Can Atrophy of Place be eliminated, or not? Atrophy of Place is inevitable, as there has always been entropy in the human-environment relationship. That said, and as stated previously, there may be states of high or low entropy in the human-environment relationship. High entropy is destructive, and the resulting rapid transformation creates the temporary environment. A state of high entropy in the environment leads to more decay in the symbolic content of places than in cases of low entropy. In contrast, a state of low entropy creates a more stable relationship within the symbolic character of places. In this sense, if the thesis

can identify the manifestations or design attitudes that result in a highly entropic urban environment, they may be eliminated, or, at least, designers could avoid such design attitudes. That said, one must understand that Atrophy of Place is inevitable, and an urban designer or planner can only slow it down and reduce it to an appropriate level. But what is "an appropriate level"? Transformations of the built environment should be kept at such a speed that one's significance of place does not decay contextually. This means that each individual or group should have the chance to experience their places during their lifetime. Atrophy of Place is natural, acceptable and a part of human life if the state of entropy is low, while a high state of atrophy leads to greater dissatisfaction within the limited environment.

In brief, Atrophy of Place refers to the loss of common lived-in experiences, including the meaning and the context of urban places. It is the decay of collectively built signs, and then; the signs were extinguished within the entropy of human-environment relations. Atrophy of Place has always occurred, and is the main reason behind man's dissatisfaction with the built environment.

6.2. Urban Atrophy[102]: *Field Observations*

> "The creation of environments that enhance the human experience is also a major concern" (Lang, p.23, 1987).

Atrophy of Place is structured upon the theory of place. It causes the inverse of experiential enhancement, and brings about a certain level of decay in the significance of urban place that affects our collective identity. "As for our identity, it is anchored in common objects and experiences to a degree we seldom acknowledge" (Tuan, p.12, 2004). In urban design and planning, urban space (place) is where our common identity is anchored, and in this sense, atrophy also defines the loss of the collective identity in the urban place. For this reason, Atrophy of Place must have observable manifestations

[102] This heading is used by Dan Haga in his book of Urban Atrophy (2011) but, there are conceptual differences between Haga's and the thesis's definitions.

in the built environment, and it is the intention in this part to identify and classify factual evidence and manifestations of Atrophy of Place in relation to the main framework of the thesis.

The thesis proposes four categories of Atrophy of Place related to the components of place identity. Each category relates to different levels of signs, and also to different symbolic content, and each heading is identified with a particular type of atrophy, depending on the nature of the loss of significance of places. To this end, this section presents categorized observational data analyses of different manifestations of Atrophy of Place. The thesis also benefits from observational data that has been documented, either directly or indirectly, from all around the World.[103] There have been several books of photography published since the turn of the millennium showing different manifestations of atrophy from either a positive or negative perspective, all of which provide factual evidence of Atrophy of Place in our lived world (see Figure 6.3).

Manifestations of Atrophy of Place are categorized as **Symbolic** (Physical) **Atrophy**, **Contextual Atrophy**, **Temporal Atrophy** and **Experiential Atrophy** (see Table 6.2), all of these four categories are prerequisites of each other, and they are consistent to the thesis framework and the components of place identity. In short, Atrophy of Place is the sum of them all.

[103] Haga's Internet community (http://www.urbanatrophy.com/), following on from his book *Urban Atrophy*, is one of the largest resources of abandoned places in the United States. In addition, Tim Franco presents the *Metamorpolises* in Shangai (http://www.metamorpolis.com/). There are a number of other similar artistic publications, including *The Abandoned America* by Matthew Christopher (2014), *States of Decay* by Daniel Barter and Daniel Marbaix (2013), *Soviet Ghosts: The Soviet Union Abandoned: A Communist Empire in Decay* by Rebecca Litchfield (2014), *Abandoned Planet* by Andre Govia (2014), *Detroit Dissembled* by Andrew Moore (2010), *Abandoned NYC* by Will Ellis (2015), *Forbidden Places: Exploring Our Abandoned Heritage* by Sylvain Margaine (2009), *Ghostly Ruins: America's Forgotten Architecture* by Harry Skrdla (2006), *Beauty in Decay* by RomanyWG (2012), and *Abandoned Places: A Photographic Exploration of more than 100 Worlds we have Left Behind* by Kieron Connolly (2016).

Figure 6.3: Some Publications presenting the results of Atrophy of Place
Source: Personal Collage from the sources found at http://www.urbanatrophy.com/ (Last Accessed: 2606.2017), http://www.metamorpolis.com/ (Last Accessed: 2606.2017), https://www.amazon.com/ (Last Accessed: 2606.2017).

Table 6.2: Types of Atrophy of Place

Type of Atrophy	Component of Place Identity	Level of Signs	What is Atrophied?	Observational Data From Urban Places
Symbolic (Physical) Atrophy	Space	Symbol (Indicators) Icon, Index, intended indicators	A Symbol	Residual forms in urban space, iconic urban architectural elements, signboards, shrines, mythic or religious urban elements, advertisement signs, facades designed of signboards
Contextual Atrophy	Context (Space-Time)	Syntactic Signs	Contextual Symbols	Abandoned places, Historic ruins
Temporal Atrophy	Space-Time-Meaning	Semantic Signs	Temporal Symbols	Disneyification, Miniaturization, Futurisation, Replication, Clonning, Touristic places, Pornscape, Futurisation, Sub-utopias,
Experiential Atrophy	Space-Time-Meaning-Experience	Pragmatic Signs	Experiential Symbols	A new urban experience, metamorpolis, manifestations of Placelessness, Non-Places, The Loss of Place that are used to build new urban place experience.

Source: Personal Rendering from Broadbent, p.476, 1977

6.2.1. Symbolic (Physical) Atrophy:

Symbolic (Physical) Atrophy is the simplest form of Atrophy of Place. Urban space is full of signs that refer to non-places, and these signs are residual formations of urban place experiences. Although they are related to space, they have no spatial attributes themselves, but are rather indications of the symbolic, indexed and iconic features of an urban place. They do not belong to any geometric or volumetric relationship, and we do not need to experience them for long.

> "Symbol dominates space. Architecture is not enough. Because the spatial relationship are made by symbols more than by forms, architecture in this landscape becomes symbol in space rather than form in space" (Venturi, Brown & Izenour, p.13, 1972).

Symbolic Atrophy might be the last phase before the decay of an urban sign, since the symbols have no established geographical relationship with the urban environment. They indicate rather than communicate, but they are also intentional indicators (Bonta et al. p.279, 1980). Signs establish a particular type of interaction with humans and the environment, while indicators hint at certain perceptible features without having to exist in space. The manifestations of Symbolic Atrophy are signs that have lost their spatial significance in urban space. They indicate a single intention and lack the richness to communicate spatially. When the intention loses validity, they no longer exist, becoming abandoned or demolished, or just occupying a space in the urban environment. The occupied space has no relation with the symbolic intention, and so they are prone to disappearing easily.

As intentional indicators, these symbols are found in the form of icons or indexes, or indicating a certain symbolic entity. Here, what is atrophied is the spatiality of the indicated entity. Iconic architectural settings or urban design elements, signboards, facades covered with signboards and sheds are the best examples of symbolic atrophy. Robert Venturi, D. Scott Brown and Steven Izenour's promising work Learning from Las Vegas actually proposes such types of Symbolic Atrophy in identifying the **duck**, the **decorated shed** and the **big sign** (1972) (see also part 2.2.3). According to them, the duck is a building with an iconic similarity between the architectural element and what it represents in which it is the iconic features that are emphasized rather than spatiality; for instance, buildings shaped like a duck or like the Titanic (Figures 6.4, 6.5). In general, the iconic features of a building are in a direct or indirect relationship with its function. Second, big signs are huge signboards. Big signs are only referring to previously indexed features of the referent[104]. They are not located to make places obvious, but rather to provide information about the features of the architectural or urban element. They may give information about the place's locational, land-use, orientation, warning, regulations, etc. (Figure 6.4, 6.8). Third, the decorated shed refers to building facades that are full of signboards, which symbolize the features of the

[104] Referent means the signified phenomenon or object. See Broadbent G. Bunt R. & Jencks C. 1980 or, search for the Ogden & Richards Semiotic Triangle.

architectural or urban element in a visual or written way. The decorated shed refers only to the symbolic features of the referent, despite occupying space in that place. Their purpose may be entertainment, advertisement, giving locational features or identifying the land-use of that place (Figure 6.4, 6.7). Finally, Tuan and Strawn's book Religion: from Place to Placelessness presents pictures of worldwide mythic and religious signs, and roadside shrines that are appropriate for the intentional indicators in symbolic atrophy (2009). These signs are produced for certain intentions (as indexed previously), like religion or myths, rather than to establish a spatial interaction with the environment (Figure 6.6).

In brief, Symbolic Atrophy refers to a loss of the space component in place identity, resulting in spatial features being disregarded by the designers. The purpose of the design shifted from having a spatial importance, to being iconic, indexed, symbolic or indicating some aspatial features. Urban places are full of manifestations of Symbolic Atrophy that are promissory of places, yet they make no contribution to place-making at all.

Figure 6. 4: The Duck, Big Sign & the Decorated Shed
Source: Adapted from Venturi, Brown, Izenour, p.p. 88–89, 1972. Original images from left: https://nowpraewpailin.files.wordpress.com/2013/02/duck-building.jpg (Last Accessed: 28.06.2017) Right: https://www.tumblr.com/search/decorated-shed (Last Accessed: 28.06.2017)

Figure 6.5: Symbolic Atrophy_001_Iconic Features
Source: Personal Archive from KırkkonaklarAnkara (Top left), Gündoğan-Bodrum-Muğla (Down), Titanic Hotel from: www.tr.hotels.com (Last Accessed: 12.12.2016)

Figure 6.6: Symbolic Atrophy_002_Intentional Indicators
Source: From Tuan & Strawn Roadside Shrines, Threshold Diagrams pages: 88,100,107,131,132

Figure 6.7: Symbolic Atrophy_003_Decorated Sheds
Source: From Personal Archive Kızılay, Ankara, Turkey

Figure 6.8: Symbolic Atrophy_004_Signboards
Source: From Personal Archive Ankara, Turkey

6.2.2. Contextual Atrophy:

Contextual Atrophy is the second category of Atrophy of Place. Manifestations of Contextual Atrophy are a natural outcome of the entropic human-environment relationship. Urban progress has led to Contextual Atrophy as the phenomenon has a context that is composed of space and time. Urban progress leaves residues of old places, while new places are built over them by the new inhabitants. Urban history is full of evidence of Contextual Atrophy.

> "The form of the city is always the form of a particular time of the city; but there are many times in the formation of the city" (Rossi, p.68, 1999).

Contextual Atrophy describes atrophy in an urban context, and goes one step further than Symbolic Atrophy. It refers to the atrophy of the contextual symbols that signify both space and time together. As stated previously, the time component of place identity creates entropy in the human-environment relationship, because urban progress is an irreversible phenomenon. The main driver of Contextual Atrophy is the time component in place identity. We cannot return the environment to its former state if we have reached a new one, meaning that the urban place will never be the same again.

The urban place cannot be represented merely as a physical setting or a dimension in time, since it has a context (Space-Time). In this type of atrophy, it is the syntax of the

urban place that is atrophied. "At the level of common experience, then both space and time can seem discontinuous" (Tuan, p.11, 2004). However, at the private experience level, both space and time are irreversibly continuous. One could not live in the urban environment in its former state, as places may change over time, and any aspects left behind in the space signify only the historical context. In this sense, Contextual Atrophy has two main manifestations: humans either abandon a place or build upon the residues of the former places. In both cases, the former (atrophied) places will never again be found in the same urban context.

Historic ruins in the urban form, historic cities and abandoned urban places are the basic manifestations of Contextual Atrophy. In some cases, a historical setting may find a place within the new urban form through such means as preservation, rehabilitation, renovation and re-building of former physical settings. Their contextual values may be deemed precious by society, and so worthy of preservation (Figures 6.9 and 6.10). In other cases, old places may be left behind in the built environment (Figure 6.11, 6.12, 6.13) as abandoned buildings or sites that have no relevancy with the urban context of the present day. In some cases, buildings are abandoned while still under construction, as seen in Figure 6.12, while in some cases we use abandoned buildings as somewhere to throw out things we no longer use (Figure 6.13). Industrial buildings, research units, power plants and residential districts that lose relevancy in the context or which have outlived their usefulness are also abandoned, as seen in Figure 6.11.[105] The ruins of such abandoned places can be found at any time and in any city as a result of entropy in the human-environment relationship, either waiting for transformation or left behind as a residual space (see DHA in Chapter 5).

[105] Dan Haga's book and photographic community *Urban Atrophy* has accumulated a large archive of abandoned places in the United States as a worldwide example (Figure 6.11). Haga established a photographic community to create an archive of abandoned urban entities, and as such, have contributed greatly to this thesis. However, he considers atrophy to be the abandonment of places, although the term has a different framework in this thesis, meaning the abandonment of all forms of urban place experience, covering all types of atrophy.

In summary, Contextual Atrophy refers to the loss of the context (space-time) component of place identity, the urban context being irreversible in time. In this type of atrophy, the contextual setting of the urban place is disregarded, and while contextually atrophied places may still occupy space in the built environment, they are not the same places anymore, being either abandoned as waste spaces or preserved for historic purposes. In any case, some of their place attributes have been atrophied.

Figure 6.9: Contextual Atrophy_001
Source: Personal Archive from Ruins of Ani, Kars, Turkey

Figure 6.10: Contextual Atrophy_002
Source: Personal Archive from Antique City of Tlos, Antalya, Turkey (Top), Antique City of Arycanda, Antalya, Turkey

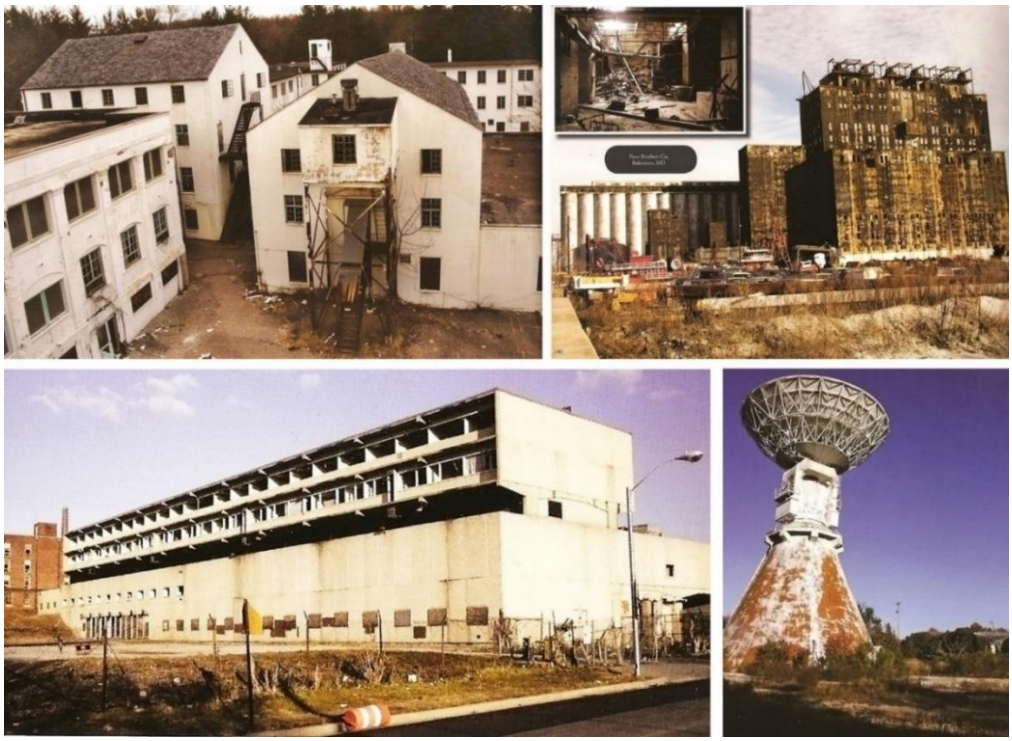

Figure 6.11: Contextual Atrophy_003
Source: From Haga D. pages: 19,20,131, 180, 2011

Figure 6.12: Contextual Atrophy_004_Abandoned Building
Source: Personal Archive from Çankaya, Ankara, Turkey

Figure 6.13: Contextual Atrophy_005_Abandoned Building
Source: Personal Archive from Ankara, Turkey

6.2.3. Temporal Atrophy:

> "Buildings and spaces are consumed as images rather than experienced as places" (Carmona, Tiesdell, Heath & Oc, p.127, 2003).

Temporal Atrophy is the third form of Atrophy of Place, and has been one of the most studied types of atrophy in literature. It refers to an atrophic attitude in place-making through the replication of semantic signs in the built environment with the aim of achieving an odd familiarity/similarity between the temporal dimensions of places. In this type of atrophy, the contexts (space-time) and meanings of places are cloned to make new places. Temporal Atrophy may also be referred to as a "kitsch"[106] design attitude, and several terms have been developed to identify this attitude in urban design and planning that also represent the manifestation of temporal atrophy. These include disneyification, miniaturization,[107] museumization, thematization, replication, pornscape, futurization, sub-utopias, other-directed places, touristication, synthetic or pseudo-places, gigantism (Relph, 1976), place-cloning (Castello, 2010), place-theming and place-marketing (Carmona, Tiesdell, Heath & Oc, p.126, 2003).

> **Museumization**: "A particular form of disneyification is the preservation, reconstruction and idealization of history" (Relph, p.101, 1976).
> **Disneyfication:** "… absurd, synthetic places made up of a surrealistic combination of history, myth, reality and fantasy that have little relationship with particular geographical settings" (Relph, p.95, 1976).
> **Futurisation:** "… allied with museumization, but looking ahead and not to the past … the self-conscious making of futuristic landscapes and places" (Relph, p.103, 1976).
> **Touristication:** Referring to the creation of places only for touristic purposes, including entertainment facilities, hotels, souvenir shops, campsites and other touristic facilities.
> **Pornscape:** A particular mode of disneyification.
> **Synthetic-Pseudo Places:** Disneyification and Museumization are also referred to as synthetic-Pseudo Places by Relph.
> **Other Directed Places:** Places assigned for a certain purpose, such as for tourism, vacations or consumption. These include museumization, disneyification, futurization, touristication and sub-utopias (Relph, p.93, 1976).
> **Sub-Utopias:** "The mindless mixing up of all man-made objects without any pattern of purpose or relationship and the propagation of lack of identity" (Narin, p.7, 1965).

[106] The term "Kitsch" is used in line with its general meaning, rather than that stated in Relph's terminology.
[107] According to Relph, 1976, the terms disneyification and museumization came from Peter Cave.

Gigantism: Creating giant structures within the urban pattern. This may be a huge entertainment object, as seen in Figure 6.19, a giant replica of an object, as in figure 6.18, or a skyscraper. It is a particular mode of sub-utopia.
Miniaturization: Another mode of sub-utopia creating an inverse of gigantism for entertainment purposes, as seen in Figure 6.16, bottom left (miniature replica of a jetfighter).
Thematization or Place-Theming: "… involves a deliberate shaping and packaging of place and place images around a particular theme" (Carmona, Tiesdell, Heath & Oc, p.128, 2003).
Replication & Cloning: "… the reproduction that architecture-urbanism is seeking when building a replica of an architectural space or element in a design" (Castello, p.26, 2010).
Place-Marketing: "… is the commodification of place" and place images (Carmona, Tiesdell, Heath & Oc, p.126, 2003).

There are conceptual conflicts in the terminologies seen above. For instance: disneyification may take place also in the format of touristication, and thematization and disneyification, synthetic places and other-directed places are more or less the same as each other. Furthermore, synthetic places are also used for disneyification, and museumization, thematization, miniaturization or disneyification may be found in the same place, as seen in Figure 6.14. Similarly, replication and thematization are observed together in Figure 6.15 and Figures 6.16 and 6.17. Figure 6.19 could be identified not only as thematization, but also as disneyification, gigantism and a synthetic place. Furthermore, Figure 6.18 is a museum building with gigantic replication, but also futurism. Although, these terms are helpful in understanding the phenomenon, they create conflicts by overlapping with each other in real-world cases, as seen in the figures below. Accordingly, this thesis proposes the term Temporal Atrophy as a blanket term for them all. Although all the above terms define separate phenomena, the design attitude behind them is the same. The major reason for the existence of Temporal Atrophy is the presence of a semantic gap between the referred place and the original one. All are a copy, clone, replica or re-production of the semantic signs found in an urban environment. Every re-production of the urban entity results in decay in the meaning of the original sign, in that the meaning of place experience will never be the one that they signify. This design attitude has also "homogenizing [urban places] influence and its [their] effects everywhere seem to be the same" by making clone-stamp places (Relph, p.93, 1976). This attitude is resulting

in a duplication of stereotypic places in our environment, and this duplicated urban context has lost meaning, being the major reason behind Temporal Atrophy

Relph identified this attitude with the terms distinctiveness and sameness (1976). The place should, above all, be distinctive, as sameness creates placelessness, and in turn, roads, buildings, parks and residences become similar. He identified this design attitude as the inauthentic attitude of place-making that creates more placeless geographies, although separating them into authentic or inauthentic design attitudes, like an "old" and "new", creates a lack of contextual depth (according to the second QCA of the thesis). Accordingly, this thesis identifies this design attitude as Temporal Atrophy in the urban geography, rather than using the term inauthentic.

In short, Temporal Atrophy refers to the loss of the components of context and meaning in place identity as a result of the creation of a stereotypic urban environment. In this context, the meaning of urban place (context) is disregarded. However, places that create sameness and which occupy a space in the built environment are not the same places anymore. Stereotypic places do not hold the same value as the original, and lose their place attributes while losing their distinctive character through cloning, replication, re-production, etc.

Figure 6.14: Temporal Atrophy_001
Source: From Franco T. 2009 (Left), Haga D. p.154 (Right)

Figure 6.15: Temporal Atrophy_002
Source: Personal Archive from Ankara, Turkey

Figure 6.16: Temporal Atrophy_003
Source: Personal Archive from Ankara, Turkey

Figure 6.17: Temporal Atrophy_004
Source: Personal Archive from Ankara, Turkey

Figure 6.18: Temporal Atrophy_005_*Futurisation & Musemisation*
Source: Personal Archive from Odtü, Ankara, Turkey

Figure 6.19: Temporal Atrophy_006_*Disneyification & Gigantism*
Source: Personal Archive from Sincan, Ankara, Turkey

6.2.4. Experiential Atrophy:

> "Heraclitus says somewhere that 'everything gives way and nothing stands fast', and, likening the things that are to the flowing of a river, he says that 'you cannot step into the same river twice'. (Plato, quoted by Heraclitus, Cratylus, 402a. Original from: Plato Complete Works edited by John M. Cooper, associate editor D.S. Hutchinson, p.120, 1997).

The experiencing of a place can never be the same, just as stepping into the same river again is impossible. This is the main reason behind Experiential Atrophy, which is the final and the most comprehensive form of Atrophy of Place to be explained here. It refers to the defining of atrophy in all components of place identity. Experiential Atrophy is a natural outcome of the entropic human-environment relationship, and it transforms all of our place experiences. The context, meaning and experience of place is transformed, while the urban place loses some of its distinctive features. In short, it is the loss of place experiences. As the lived-in experiences change with respect to the transformation of the human-environment relationship, we are brought a new level of consciousness for the environment in which we live. On the other hand, once humans reach a new level of consciousness, there will be no turning back. The old state of space consciousness becomes lost as we reach a new state.

The lived-in experience has also been in transformation, and this presents a new perspective of the pragmatics in the human-environment relationship. In this respect, Experiential Atrophy refers to the loss of experiential symbols in (pragmatic) signs. Spatial consciousness has also been transforming, in that our conceptions of space are different to what they were before. As the thesis presents in the DHA, different space conceptions have been experienced throughout history.[108] To begin with, the organic geometry of nature was imitated in the building of primitive shelters by pre-urban settlers, after which, Euclidian Geometry was used by the Greeks and Romans in the shaping of the ancient urban environment. Later, Perspective geometry brought with it a new level of space consciousness, with three-dimensional geometry structured upon the two-dimensional Euclidian geometry. Later, we would come to experience

[108] See also Giedion's quote at the end of section 5.2.

abstract geometry, and this pioneered modern thought. Now, we are going through an age of dynamic and virtual geometry within our fast-changing urban environment. Although the places in which we live have more or less the same geographical features, the spatial consciousness has been in transformation throughout the years of urban progress.[109] For instance, the grid is still in use, but not in the same form used by the Greeks. The linear spaces of a city that were known as documanus and cardo have today become transit roads (see: Kesim, 2009), while the agora has been transformed into malls and separate building units. We do not use pyramids or temenos for touristic purposes, but for burying our leaders; and the walls of our cities have turned into symbolic gates (Figure 6.22.). Even though we still live in the same cities, the way we experience them has changed. One of the best descriptions of Experiential Atrophy is provided in Tim Franco's photography book Metamorpolis (2009). Franco took pictures of urban scenes to document the shift in urban experiences in Shangai.[110] As can be seen in Figure 6.20, Shangai's inhabitants have attained a different level of urban place consciousness while surviving between huge construction sites, and the same stands true for Turkey in Figure 6.23. The most crowded streets are squeezed between huge buildings (Figure 6.25). Although, architects and urban designers have been designing so-called places, they sometimes fail. Manifestations of the new urban consciousness on places are presented seen in Franco's picture or in Figure 6.21. According to Webber et al., 1964 and, Augé, 1995, roads and malls are referred to as Non-Places, yet they can be seen to be places in figures 6.21 and 6.25.

The consciousness of urban space has been built upon the old experiences of places throughout history, and in this way, new spatial consciousness are reached while the experiences of the old spatial consciousness are being disregarded. That said, some experiential features have already existed, and have had places built on them, in that urban process is a progress. The term "lack" fails to explain urban progress because it means that there are no experiential features left related to place identity. On the other hand, Atrophy of Place serves in the definition of a gradual loss of place identity. While

[109] See also section 5.3. Urban progress is composed of crowding and spaciousness.
[110] This may be referred to also as ruralization.

some features have been preserved, others have decayed. In brief, Experiential Atrophy refers to a gradual loss of lived-in experiences in the long term. Furthermore, it has been increasing as a result of the entropy in the human-environment relationship. In fact, Experiential Atrophy can be defined as the major reason behind Atrophy of Place.

To conclude, Experiential Atrophy refers to the loss of the experience component in place identity, in which the experiential context of the urban environment is disregarded. It is the most comprehensive form of Atrophy of Place, increasing gradually to cover all other types of the atrophy. Even when the resulting physical settings is the same, our spatial consciousness would have experienced a transformation. Accordingly, one's experience of a place is never the same again, as one's old place experiences have been lost.

Figure 6.20: Experiential Atrophy_001_*Metamorpolis*
Source: From Franco T. 2009

Figure 6.21: Experiential Atrophy_002_ Roadside Drive-in Pub
Source: From Personal Archive, Kırkkonaklar, Çankaya, Ankara, Turkey

Figure 6.22: Experiential Atrophy_003_ City Gate by New Residences
Source: From Personal Archive, Ankara, Turkey

Figure 6.23: Experiential Atrophy_004
Source: From Personal Archive, Çankaya, Ankara, Turkey

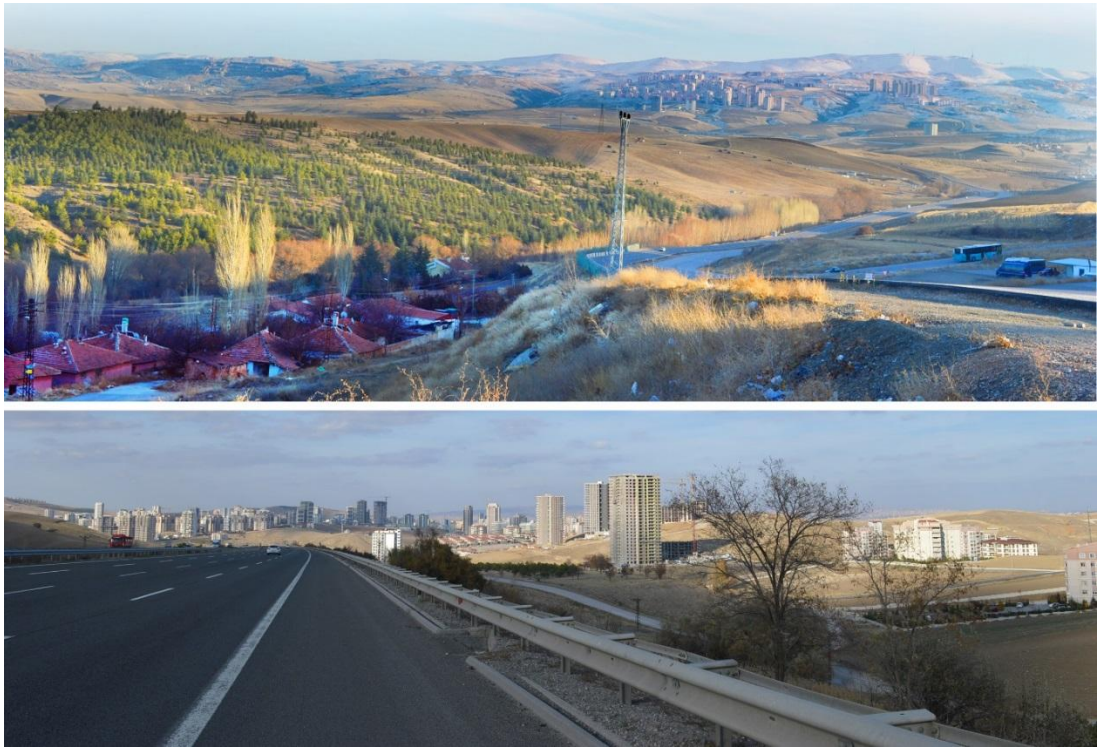

Figure 6.24: Experiential Atrophy_005
Source: From Personal Archive, Ankara, Turkey

Figure 6.25: Experiential Atrophy_006_So-Called Streets Squeezed Between Malls
Source: From Personal Archive, Ankara, Turkey

6.3. Experiential Data Analyses: *Lived-in Experiences*

The experiential data analyses are designed to detect and evaluate the sense of atrophy by investigating people's lived-in experiences. The main aim in this section is to test the validity of the thesis framework from the side of experiential data. To this end, this an overview is presented of the results of a quick questionnaire and responsive data analyses to discover the sense of atrophy in the urban field. This is a semi-scientific, experimental research, the results of which will serve as the basis for further studies. The experiential data analyses related to Atrophy of Place requires extensive global research that cannot be carried out within the confines of a thesis. Hence, the researcher has limited the field of study (Detailed results are presented in Appendix A and Appendix B, given that the experiential data analyses is found to be a semi-scientific research), although the results of the experiential data analyses have contributed to the reliability of the thesis.

The four categories of Atrophy of Place are presented to the participants, both directly and indirectly. It is necessary for the researcher to decode the participant's statements to the terminology of the thesis. The thesis claims that feelings of Atrophy of Place may change among different age groups, in that experience is highly related to identity of place. The thesis claims that older (more experienced) participants may have felt more dissatisfaction with their environment than young participants, in that older people have experienced more Atrophy of Place (where present) than younger people. Moreover, the participants should be further categorized according to their professions, in that the participants from the faculty of architecture may have biased viewpoints. The survey sample is carried out using a cluster sampling technique. The results are analyzed taking into account the personal information (Age, Gender, Educational Status and Profession) of the participants. Furthermore, each research method contains peer questions to test the validity of the answers, and only the questionnaires found to be valid will be counted. It is expected that the results of the experiential data analyses will concur with the documental data, the observational data and also the main framework of the thesis.

The results of the questionnaire revealed that the respondents' obviously experienced the sense of Atrophy (See Appendix B for the questionnaire and results). The results of experiential data gathered during the survey are consistent with the documental and observational data examined earlier. Furthermore, the questionnaire also provided information on the collective lived-in experiences of the respondents about the urban place and Atrophy of Place. The urban place is primarily an experience rather than a context or a meaning. As can be seen in the results, the loss of experience component was highly graded by most of the participants (Table B.9 in Appendix B). In particular, it was found that the higher the past experience of the participant (the older participants or the more educated), the higher also their sense of atrophy. Additionally, more than 70 percent of the respondents said that they had experiences a sense of Atrophy of Place, grading the components of place identity in ascending order (According to their comprehension of the definitions related to space, context, meaning and experience). The categories of Atrophy of Place were also responded to in the same ascending order,

both in wordily and visually conducted tests of the questionnaire. At the conclusion of the study, the main framework of the thesis was seen to be consistent with acceptable marginal deviations after the results questionnaire were analyzed, and so the main framework of the thesis can be considered compatible with the results of the questionnaire.

6.4. Concluding Remarks:

The main aim in this chapter has been to come up with a definition of Atrophy of Place. To this end, an attempt has been made to detect a sense of the atrophy and its manifestation in the urban environment by examining lived-in experiences and documenting the results of field observations. In this way, this chapter has tested the main framework of the study through the use of observational and experiential data analyses. In the end, the thesis found Atrophy of Place to be result of entropy in the human-environment relationship. This chapter makes two main contributions to the study. First, this chapter suggested the term Atrophy of Place to describe the phenomenon of lack of place, improving upon the terms put forward earlier, including Non-Place (Webber et al. 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976). Although Relph, Norberg-Schulz, Webber and Auge also felt the phenomenon, there are conceptual deficiencies and discrepancies between their perspectives, as explained in Chapter 3. The thesis provides a more sophisticated phenomenological framework by re-structuring the theory of the human-environment relationship using a phenomenography method, and uses the term entropy in its explanation of the human-environment relationship. Although the previously mentioned concepts have conceptual problems, this thesis has benefitted much from them, and Atrophy of Place does not disregard them, but can instead be considered a complementary concept, having revised their definitions in its framework.

Second, this chapter has identified and classified the manifestation of Atrophy of Place. Place and Atrophy of Place are two facets of the same phenomenon in the built environment. The sense of atrophy is a factual phenomenon, and its manifestations

have also been observed to varying degrees in different formats. To this end, the thesis proposes four different categories of Atrophy of Place, identifying their manifestations on the urban space through field observations. These are: Symbolic (Physical), Contextual, Temporal and Experiential Atrophy.

In conclusion, this chapter has examined the consistency of the thesis by ways of an experiential and observational research. The aim of the questionnaire and the field observations were to gain an understanding of the lived-in experiences, and to search whether or not the framework of the study is consistent. The results were found to be consistent, though with acceptable minor deviations in the quesitonaire. Furthermore, more than 70 percent of the participants lamented directly the deprivation of the urban environment. The manifestations of the Atrophy of Place can be observed, identified and categorized in our urban environment. Having analyzed the compiled documental, observational and experiential data, it can be stated that the main framework of the study is consistent and valid, and that Atrophy of Place is a factual phenomenon and a veridic identification.

CHAPTER 7

CONCLUSION: THE PLACES OF IGNORANCE

> "The place is a goal in the future" (Tuan, p.130, 1977).
> "Goal is also a place in space…" (Tuan, p.180, 1977).

The place is a meaningful experience in the environmental context, and is the main goal in urban design and architecture. The built environment is designed with the creation of places in mind, and the phenomenon of lack of place stimulates the desire of place-making. In the end, the environment is the results and also the residues of these wills.

This thesis has questioned the lack of place from the perspective of the human-environment relationship. Place is an order of environmental settings in one's mind, however the law of entropy states that the environment evolves in a disorderly fashion, creating the phenomenon of lack due to the irreversible component of time in place identity. In this regard, the phenomenon of lack is a persistent deprivation of the environmental setting. It has been shown in the thesis that the process of environmental deprivation can be described as Atrophy of Place, and it is further argued that Atrophy of Place is the main motivation behind design behaviors.

This thesis puts forward a new phenomenological framework for the concepts of place and Atrophy of Place. Atrophy of Place brings new insights into the theory of urban place, and in turn, place and the Atrophy of Place can be considered as two complementary phenomena. Taking this into account, a new perspective of the process of urbanization is developed in the thesis. This chapter concludes the study by addressing three main issues. First, the main contributions of the study to literature

will be expressed, which are threefold: the research method *phenomenography*, the *entropy* in the human-environment relationship and *Atrophy of Place*. Second, a discussion is made of the results of the research and the question "Can Atrophy of Place be eliminated by design, or not? And how can designers benefit from the research? Finally, the thesis will be concluded by touching on further assignments.

7.1. Contributions of the Thesis:

The thesis makes three main contributions to literature while examining the problem of lack of place in urban studies, aside from the research outcomes of the study. First of all, the thesis develops a new *phenomen-o-logic* by adopting a research method referred to as phenomenography in educational sciences. Phenomenography, as a research approach, also offers the means of investigating a phenomenon from a different perspective, and in this case, it is used to investigate the phenomenon of lack of place. Second, the thesis proposes a new perspective for understanding the human-environment relationship. On this issue, the thesis has benefitted from the term *entropy* when identifying the function of lack embedded in the theory of place. To continue, the thesis proposes a framework of place identity by modifying the components. Finally, the research proposes Atrophy of Place as a contribution for the concepts defining the lack of place, being *Non-Place* (Webber et al. 1964; Augé, 1995); *Loss of Place* (Norberg-Schulz, 1979); and *Placelessness* (Relph, 1976).

7.1.1. Phenomenography in Environmental Sciences:

Phenomenography is a research method and approach that is used widely in educational sciences for the investigation of lived-in experiences. The aim in this regard is to develop a systematized form of thought about a phenomenon, and to identify a new logic behind a phenomenon related to the field of study while the researcher applies various kinds of research techniques. The method is also used for producing a hypothesis by making abstract conceptions and re-interpretations of

existing conceptions. For this reason, the author prefers to adopt phenomenography when making ontological assumptions by building new epistemological conceptions about the theory of place and the concept of lack of place.

This research is one of the first in urban studies to adopt a phenomenographical methodology, for which it was necessary to modify and improve the established research methods and techniques, and this research design is one of the main contributions of the thesis to the field of urban studies. There are two important reasons for selecting phenomenography as the research method.

First, several concepts have been developed for the identification of lack of place, of which *Non-Place* (Webber et al. 1964; Augé, 1995), *Loss of Place* (Norberg-Schulz, 1979) and *Placelessness* (Relph, 1976) are some of the more notable. There are discrepancies and deficiencies in between those concepts. Besides, this group of concepts contradict each other when faced with such questions as: "What is the basic problem in urban place design?" and "What is lacking in terms of place in the urban environment?" In this sense, the thesis extends the field of study by using phenomenograpy to analyze the conceptual discrepancies and deficiencies that exist between these concepts.

Second, the study demands a creative, open-ended and flexible research method, since it is trying to expand upon the existing theories of place and lack of place. That said, the phenomenon of lack has already been identified in existing theories, with the same phenomenon referred to by several other authors with minor deviations in the concepts. This research aims to create a new framework for the phenomenon of lack, for which quantitative research methods are insufficient given their particular use for the analyzing of well-defined problems and their consequences. Logically, qualitative methods offer more flexibility, and so it was considered more appropriate to use qualitative methods for the analysis of ill-defined problems. The method is designed to support creative thinking while researching the phenomenon of lack.

Furthermore, qualitative research methods may struggle to identify precise results, and so a quantitative approach may bear more fruit. That said, it is not easy to achieve scientific validity with just one research method, and in this sense, it is necessary to extend the research by working on three sets of data using various data-processing techniques. The scientific validity of the study can be considered confirmed by the consistent results gathered from the different data sets, being documental data, observational data and experiential data. (Logical) Qualitative comparative literature analysis (QCA) and descriptive history analysis (DHA) techniques are used for the documental data analyses; while a field research technique is used for gathering observational data. Lastly, a questionnaire is used for the collection of experiential data set. There are limitless data sources while conducting the phenomenographic research. So, the researcher has to decide upon the limits of the study with the help of the examining committee. In particular, the questionnaire was found to be semi-scientific, although it still contributes to the research. It should be noted that these research techniques are not revolutionary, although the research design of the phenomenography is distinctive in its search for consistency between different data sources. The use of multiple methods increased the reliability of the study, and these methods and techniques, in providing the necessary scientific flexibility, allow the thesis to be developed by further works. At the end of the research, it is seen that the three data sets and five research techniques gave consistent and valid results when compared to each other.

In this regard, the thesis has brought a new perspective to the phenomenographical research method. The basic techniques used in phenomenography are re-designed and adapted to urban studies through modifications to the research techniques, with the aim being to increase the reliability of the research. This is one of the main contributions of the thesis to literature. From here on in, the designed phenomenographical research method can be used in urban studies in the future and although the thesis has come to an end, the research subject and the method are already open to improvement in further studies.

7.1.2. Proposed Approach to the Human-Environment Relationship:

This thesis argues that the concepts of the lack of place Non-Place (Webber et al. 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976) are deficient to express the phenomenon of lack. Underestimating the phenomenon, their primary goal was to define manifestations of lack of place rather than to explain the entire phenomenon of lack. This thesis begins by researching the basis of these concepts, as it is argued that lack of place can only be understood if, and only if, the place is defined. Similarly, place can be understood if, and only if, the human-environment relationship can be analyzed in terms of the phenomenon of lack. In this sense, this thesis proposes a new universal approach to understanding the human-environment relationship, drawing upon the universal law of disorder known as *entropy*. The thesis builds a new framework related to the phenomenon of place and the lack of place by way of the proposed approach. Then, the research modifies the identity of place by re-structuring the components of place within this new framework.

7.1.2.1 Entropy in the Human-Environment Relationship:

The thesis defines the human-environment relationship as being entropic in nature. According to the results of a qualitative comparative analyses (QCA), the environment has the potential to be a place, and human beings exploit[111] that potential by building it. This brings a certain latency to the affordance of the environment, and this latent environment is identified as the environment in which atrophy takes places.

Place identity includes a time component. Building is a process, and it takes time, which is an irreversible phenomenon. Once you exploit it, i.e. build it, you can never return to the initial state of environmental order. Despite being temporary, the impact humans create remains within the environment, although the signs and symbols that structure the relationship between human beings and the environment dissolve over

[111] Human species are classified as mammals in terms of their biological features. Then, why do they exploit their environment by acting like parasitic organisms? This question has been raised also by biologists.

time. They have become degraded, degenerated and finally ignored throughout settlement history, and places that are demolished, destroyed or disregarded become left overs in space. The urban environment is full of the wastes of abandoned places.

The city has been built on over and over again, and entropy, being a state of disorder on the geographical environment, has been growing gradually throughout settlement history. As a result, today we have cities that have become endless and terrible urban places. The process of urbanization is studied and documented in a descriptive history analyses (DHA), revealing that spaciousness and crowdedness create a continuum of place-making. Place and lack of place are two complementary sides of this continuum. Hence, the thesis states that urban process is a progress causing an entropy in human-environment relationship, which has been growing gradually because of the irreversible component of time. This growing state of disorder has brought more dissatisfaction with the environment i.e. more Atrophy of Place.

In conclusion, the framework created by considering the entropy on the human-environment relationship is another contribution of the thesis. Even if the term entropy is used in social sciences before, this thesis would be one of the first to identify its impact on the human-environment relationship. By understanding the concepts of lack of place from such a perspective, this thesis will be able to identify and address the lack of conceptual sophistication and contextual depth in lack of place.

7.1.2.2 The Identity of Place:

The thesis proposes a new format for place identity, based on a reinterpretation and modification of the components of place in accordance with the findings of a qualitative comparative literature analysis (QCA). Although there are several authors who have dealt with the identity of place, two main classifications stand out in the literature review: that identity of place was defined as structure and meaning by Norberg-Schulz (1979), or as the static physical settings, activities, and meaning by Canter (1977) and Relph (1976). The thesis finds ambiguity and discrepancies in these

definitions of place identity and its components, and so there is a need to make a clear re-definition of identity of place. This thesis develops two main criticisms of Norberg-Schulz's and Canter and Relph's definitions of place.

First, neither *structure* (Norberg-Schulz [1979]) nor the *static physical settings* (Canter [1977] or Relph [1976]) are sufficient identifications for the context of place, as these terms refer only to the spatial attributes of a place, disregarding the fact that the place is static dynamic entity in time. Physical settings of a place lie in time. Even if the physical settings of a place appear to be static, individuals may experience them in different ways. Places have a history, above all (see also DHA), and so should not be thought of merely as static physical settings. Similarly, space and time should not be thought of as separate entities. Neither Norberg-Schulz nor Relph and Canter made use of the time component to identify the place identity. According to the QCA, the time component in place identity is missing from their frameworks, and based on the critiques developed in the QCA, the thesis proposes **context** (space-time) for the identification of the physical attributes of a place.

Second, Canter (1977) and Relph (1976) used activities to identify place experiences. The term *activity* creates conceptual discrepancies in their texts, in that it can have several meanings, including the land-use of a site, or a kind of movement, behavior or physical action. Moreover, Norberg-Schulz has not used any similar description corresponding to activity on his components of place identity, which has resulted in ambiguities related to the identity of place. Accordingly, this thesis proposes the aspect of **experience** rather than the ambigius definition of activity as a component of place identity, and the consideration of the place as an experience rather than an activity. The experience of a context is different from one person to another, depending on their past experiences. In addition, experiences of the same place would also be different in time, and so the meaning of the place context may change from person to person, or from generation to generation, despite the physical settings of the context remaining the same. In this respect, the term **experience** would serve better for identifying places in terms of the thesis framework.

In brief, the thesis proposes a new format to identify the place identity that is based on: Context (Space-Time), Meaning and Experience. In the end, the thesis also provides a definition of place, referring to it as the meaningful experiencing of a context. In addition, place identity is manifested in different ways according to the nature of its components, and this stands as the main reason why Atrophy of Place exists.

7.1.3. Atrophy of Place:

This claims that lack of place is the main problem in urban place design. In this section, a summary will be provided of how the framework of the thesis was improved during the phenomenographical research, and an explanation will be made of how the term *Atrophy of Place* was arrived at through the research. The research is designed in three stages, covering: a **QCA** (Qualitative Comparative Literature Analyses), a **re-interpretation** and **re-conceptualization** of the concepts, and a **validation** of the framework.

First, the thesis claims that the concepts of lack of place fail to identify fully the phenomenon of lack itself, in that they lack conceptual sophistication and contextual depth. The study focuses on researches into the theory of place, as the origins of the original concepts. The components of place identity are re-defined and modified, after which, the concepts of lack of place are defined according to the loss of components in place identity. The research then paired the loss of components of place identity with the concepts of lack of place, which are potentially available to be prerequisite of each other.[112] In this way, the thesis comes up with a systematized form of thought after the QCA that will be used on the concepts in the further stages.

[112] The concepts of the lack of place are Non-Place (Webber et al. 1964; Augé, 1995), Loss of Place (Norberg-Schulz, 1979) and Placelessness (Relph, 1976). Non-Place is more useful for identifying the lack of physical settings (space); Loss of Place is more useful in identifying lack of context (Space-Time); and Placelessness is more related to the lack of meaning component in place identity.

Second, the main approach of the thesis regarding to the phenomenon of lack is developed in line with the findings of the QCA and DHA. The entropy in human-environment relations provides the parent framework of the study. It engenders the conceptual schema by re-interpretation and re-conceptualization of the concepts. The basic units in the human-environment relationship need to be defined in order to retrace the phenomenon of lack. The basis of places are the symbols of the individual and the signs in the built environment, and lack of place refers to the loss of those signs and symbols. Symbols lose much of their power during the progression of the natural human-environment relationship, resulting in entropy, and taking this into account, this thesis re-interprets the concepts of the lack of place. A loss of space in place identity would be identified as Non-Place; a loss of context (space-time) would be identified as Loss of Place; while a loss of meaning would be identified as Placelessness. This leaves a gap in the references to describe the loss of the experience component of place identity, for which this thesis proposes Atrophy of Place, based on a re-conceptualization of the phenomenon of lack. The concept of Atrophy of Place contains also the concepts of lack of place, in that each concept in the main schema is a prerequisite for the others.

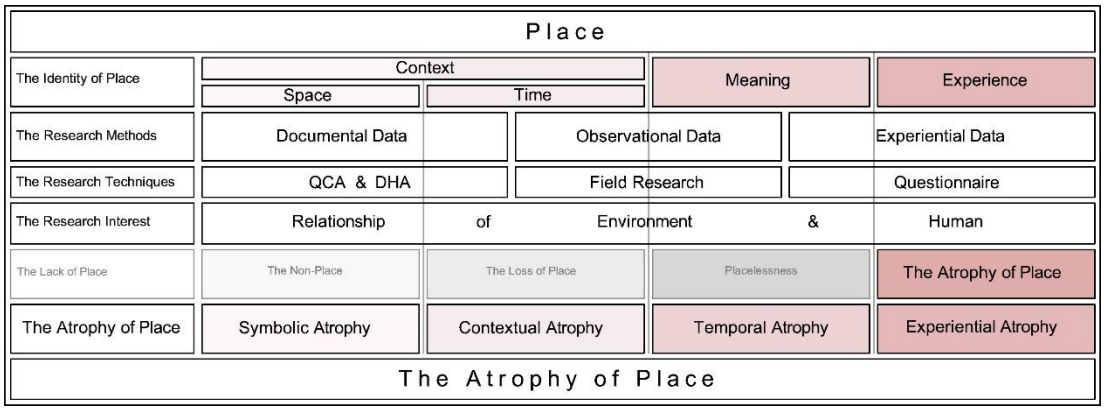

Figure 7. 1: Main Framework and the Result of the Study
Source: From the Thesis' Research

Third, the proposed framework must be validated, for which the thesis sought out manifestations of Atrophy of Place through field observations. During these

observations, it was understood that the reinterpretations of the concepts of lack were unsuitable for the identification of Atrophy, given the lack of contextual depth. Furthermore, reinterpreting Non-Place, Loss of Place and Placelessness may lead to the loss of their original definitions, and so the thesis proposed four different categories for Atrophy of Place, rather than using the available concepts. Although the Atrophy of Place is comprising the concepts of lack of place, yet it is established upon a different ontological recognition about the phenomenon of lack. The thesis demands a different epistemological conceptualization for the improved contextual framework, for which the term Symbolic Atrophy is suggested for atrophy of space; Contextual Atrophy for atrophy of context; Temporal Atrophy for atrophy of meaning; and Experiential Atrophy for atrophy of experience, with Atrophy of Place being the sum of all. The proposed categories of Atrophy of place are also validated by an experiential data analyses to increase the reliability of the qualitative research. The lived-in experiences of the participants are sought and categorized in line with the types of Atrophy of Place using a semi-scientific questionnaire and responsive data analyses.

In conclusion, the final contribution of the study is the conceptual framework developed by *Atrophy of Place*. The thesis has also identified the types and manifestations of atrophy, and claims that the deficient parts in the theory of "lack" are eliminated with the new framework. The main framework of the study is not only a schema of the thesis, but also the primary result of the study (See Figure 7.1), since the research proposes a new structure for the identity of place, a new approach for human-environment relations and finally, the concept of Atrophy of Place as the last and most significant contribution of the thesis.

7.2. Afterword: Places of Ignorance

Atrophy of Place is the ignorance of the significance of places, and cities are full of places that we ignore that have been built upon the residues of old places. This ignorance of place experiences leads to deprivation in environmental settings, and as

a result, “the city is an endless, sad, and desperate land” (Franco T. texts by Edelmann, F. p.4, 2009).

An atrophic design attitude could be identified also as an urban space designed as a container rather than a place of involvement. We design and build houses rather than homes, roads rather than routes, thematic parks rather than landscapes, skyscrapers rather than urban silhouette, and then we abandon them without thought. The purpose here is construction rather than the creation of place experiences. “Indeed, many large cities are regarded as terrible places.” (Canter, p.38, 1977). Must we live in such a terrible urban environment?

The ultimate desire for place experience exists. It can appear in roadside entries (Figure 6.21), squeezed between skyscrapers (Figure 6.25) or in the niches of concretes (Figure 6.20). In fact, what is ignored is not only the place itself, but also the urban designers and architects profession related to urban places. At this point in history, urban designers and planners face the lie that they will never be able to design or plan an entire city, since only a part of the urban field can be studied. Consequently, the city has become a patchwork of trial and error, and is seen as a playground of construction. Surprisingly, this is regarded as positive in some respects, in that temporary and ugly places drive creative impulses, although they are still prone to becoming lost from the urban scenery. Hence, temporariness is created by the rapidly transforming environment, in which places are destroyed and build repeatedly. Creating temporary place experiences would fall outside a designer’s logic, being more relevant to a sociologist, a politician or an economist at the highest level. In fact, a temporary place would not be a place at all. Urban place design or architecture cannot be underestimated to serve as a gameplay of temporary construction.

As a result, Atrophy of Place has been growing gradually. While designing or building, we ignore built place experiences, and rapid transformations within the built environment lead to more Atrophy of Place. We create such atrophic places by ignoring their symbolic significance, although the place experience should be

continuous and complete. Place-making is not a dilemma of "familiarity" and the "new" (Broadbent et al. p.155, 1980) or "authentic" and "inauthentic" places (Relph, 1976), as the place is not only a constructed setting, it is also a meaningful experience of the context.

Instead of temporary experiences, place experience should be continous and complete, and the spatial consciousness should not be structured temporarily. Heiddeger has a simple solution to this, proposing "Sparing and Preserving" as the fundamental character of dwelling, yet, this solution provides a contradictory schema with the entropic nature of built environment itself.

> "Sparing is letting things, or in this context places, be the way they are; it is a tolerance for them in their own essence; it is taking care of them through building or cultivating without trying to subordinate them to human will. Sparing is a willingness to leave places alone and not to change them casually or arbitrarily, and not to exploit them" (Relph quoted from Vycinas, p.p.38, 39, 1976).

At this point, the thesis asks the final question: "Can Atrophy of Place be eliminated by design?", to which the answer is evidently "no". Neither design actions nor "sparing and preserving" the built environment can be considered a solution. Atrophy of Place is a result of the entropy in the human-environment relationship, and furthermore, the entropy of the environment has been growing naturally. The atrophy is not a phenomenon to be eliminated or solved, and in fact it is not a problem. The atrophy is a factual phenomenon as same as the place is. Furthermore, the atrophic progress might also be productive and generate places in partially while, the whole system moves to a more disordered state of equilibriums and creates a deprivation. The equilibriums of the system are also certain kind of progresses despite the whole progress generates the atrophy. This thesis is interested in the entire *phenomen-o-logic* of human-environment relational system, instead of the partial equilibriums. That said, it opens a new door for urban designers and architects by raising consciousness of the atrophy in the built environment.

The term Atrophy of Place has contributed to the field of urban studies in three major ways. First, Atrophy of Place contains a distinctive theoretical framework concerning

spatial experiences. The thesis is not grounded on the theories of sociology, psychology, economy, etc., but rather relies on researches outcomes. The study has compared and contrasted the theories produced from the perspective of human and environmental sciences, although its focus has been urban place design. For this research a unique phenomenological framework has been constructed, rather than borrowing the purpose of design from different scientific fields. In this regard, accepting the phenomenon of Atrophy of Place offers a new starting point for urban designers and architects, allowing them to achieve a new spatial consciousness and to reconsider their design attitudes according to the human-environment relationship.

Second, although the thesis is an urban design research, it has not been possible to resolve the research problem through its design. This research questions the phenomenographic logic behind (urban) place design, and the urban designs or architectural researchers that follow may accept the phenomenon (of Atrophy of Place) and reconsider their design attitude. In this way, the thesis would gain an answer to the question of "how" it could be designed. As stated previously, the environment may be in a state of low or high entropy, but to keep the entropy of the environment low, the urban place must be designed with full appreciation of its components in place identity. The urban place is not a patchwork of trial and error, but is rather at one with its surroundings, as well as the natural and built environment. Furthermore, it should be designed as a whole, paying heed to the context of time. Urban place design is a process in progress, and Atrophy of Place is a fact of the progressive human-environment relations. Progress itself creates atrophy, however, the designer could keep it at a certain level without ignoring the attributes of places. At minimum, urban designers and architects should abstain from designing the manifestations of Atrophy of Place that are identified in this thesis.

Finally, the nature of transformation itself creates Atrophy of Place. Urban transformations should not be perceived as a positive design aspect, and this thesis supports neither rapid evolution in the urban field, nor a return to the primitive formations of urban life. What this thesis proposes is "true" progress, without ignoring

the places created in the past. But what is "true" progress? Contemporary urban designers and architects are searching for a solution to the slowness of design, aiming to design as much land as possible, as quickly as possible. The places they build are adaptable to the rapidly changing parameters, and so places transform in line with the fast-changing needs of the socio-economy and policy. As a result, the places they built become out-of-date even in the design stage. Such efforts are worthless, and have devastating effects on the environment. True progress should be "on" the places we build, and space should be designed with an adaptive capacity. The capacity lies behind the basics of the place experiences. In other words, we need a continuous and complete place experience that has been designed spatially, and so the thesis suggests that the components of place identities and the symbolic significance of the places we build should not be ignored, nor should they be changed too rapidly or casually. The designer's logic should propose a geography that always affords the basic spatial attributes to allow the building of places, and designers should keep the place experience alive, and should modify rather than ignore it.

In conclusion, design is a process in progress within the built environment. Urban designers and planners should have design the progress first. If a lived place is ignored, the progress in urbanization would rupture the place experiences, resulting in high entropy in the Atrophy of Place. Despite that, Atrophy of Place may be kept at a certain level if the significance of the place is not ignored.

7.3. Conclusion & Further Studies:

This research is designed to uncover a logic rather than to form a conclusion, and in this sense, each contribution of the study stated above may be used as the basis for further researches. To continue, the thesis classified the manifestations of Atrophy of Place observed in the field study section, and these may be regarded as a solid result of the study, although the research has only proposed a framework which can be open to further studies of urban place. The solid results of manifestations of Atrophy of Place have already been collected and photographed by the author, and presentations

of the collected evidence within the framework of Atrophy will be the first assignments of the author in the following years. Such presentations will make designers aware of potential environmental problems, and may lead them to prepare atrophic maps and atlases of cities before beginning a new design processes in the urban arena. In brief, this thesis is just a beginning for the research works that will follow.

The thesis has adopted, re-designed and developed phenomenography as a research method for use in environmental sciences, although this approach was insufficient for the environment research, specifically in the data analyses techniques. In this respect, a QCA (logical qualitative comparative literature analysis), DHA (Descriptive history analysis), field observation and questionnaire are adapted and used to sustain the consistency between the observational, documental and experiential data sets. The thesis includes a newly developed phenomenological framework for explaining entropy in the human-environment relationship, and the explanation was used to develop the identity of place. At the end of the research, the thesis suggests Atrophy of Place as a contribution for the concepts of lack of place.

Melvin Webber (1964) concluded in his study that cities must be designed for interactions rather than for places. Marc Auge (1995) blamed the totalitarian attitude of super modernity for failing to identify an exact solution. On the other hand, Christian Norberg-Schulz (1979) proposed the recovery of places (i.e. a return to a former state, considered impossible in the thesis). Edward Relph (1976) concluded that the results of placelessness are a cutting of roots, an eroding of symbols, and the replacement of diversity with uniformity and experiential order with conceptual order. He stated that we need to demand a revival of man's sense of place, and proposed a need to transcend placelessness.

The conclusions arrived at by these authors are either impossible or superficial, and addressing this, Atrophy of Place provides a new consciousness for designers as a factual phenomenon. The concept is defined in a flexible conceptual framework, built upon the human-environment relationship, and it may be adapted in future

manifestations of the phenomenon of lack rather than proposing a distinct solution. In other words, manifestations of Atrophy of Place may change, but the sense of atrophy will stand still. The concept is a neutral rather than a negative stance, since it is reliant upon the nature of the human-environment relationship. Above all, place and Atrophy of Place are two facets of the same phenomenon.

In conclusion, the purpose of this study has been to question the concepts surrounding lack of place, and to discuss whether or not it may be eliminated by design. The study concludes with a proposal for a new phenomenological framework and a set of conceptions related to the theory of place and lack of place. It is hoped that the framework of the thesis will bring a new perspective for designers and architects by resolving the deficiencies of the concepts of lack of place by introduction of the term *Atrophy of Place*.

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APPENDIX A

QUESTIONAIRE

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MİMARLIK FAKÜLTESİ
ŞEHİR VE BÖLGE PLANLAMA BÖLÜMÜ
Araş. Gör. Berk KESİM

MIDDLE EAST TECHNİCAL UNIVERSITY
FACULTY OF ARCHİTECTURE
DEPARTMENT OF CITY & REGIONAL PLANNING
Res. Assist. Berk KESİM

Bu çalışma kent mekânı (yer) üzerine akademik bir araştırmasıdır. Bu çalışmanın sonuçlarından elde edilen veriler, yaşadığımız kent çevresini değerlendirmek için kullanılacaktır. Bu yüzden, ileride uygulanacak kentsel tasarım, mimarlık ve planlama projelerinin geliştirilmesi için cevapların doğruluğu ve samimiyeti çok önemlidir.

(This is an academic research about the urban place. The data gathered from the results of this study will be used in evaluating our lived-in environment. The accurate and trustful information is very crucial to develop the implementation projects in urban design, architecture and planning.)

1. Yaşınız?
(How old are you?)

☐ 0-19 ☐ 20-25 ☐ 26-35 ☐ 35-65+

2. Cinsiyetiniz?
(What is your gender?)

☐ Erkek *(Male)* ☐ Kadın *(Female)*

3. Eğitim durumunuz?
(What is your educational status?)

☐ İlköğretim *(Primary School)* ☐ Lise *(High School)* ☐ Lisans *(Bachelor Degree)* ☐ Y. Lisans/Doktora *(Master or PHD)*

4. Eğitim aldığınız alan?
(What is your profession?)

☐ Mimarlık Fakültesi *(Faculty of Architecture)* ☐ Diğerleri *(Others)*

5. Yaşadığınız kent mekânları (yerleri) eskiden daha mı güzeldi?
(*Was it more pleasing in the past the city that you are living in?)*

☐ Evet ☐ Hayır

6. Eskiden yaşadığınız kent mekânına (yerine) dair bir özlem duyuyor musunuz?
(Do you miss the urban places that you had lived in?)

☐ Evet ☐ Hayır

7. Hiç yaşadığınız kent içerisindeki mekânın/yerin yoksunluğu veya yok olduğunu hissettiniz mi?
(Have you ever felt the lack of place in the city you have been living?)

☐ Evet ☐ Hayır

8. Kendinizi yaşadığınız kente ait hissediyor muşunuzu?
(Do you feel that you belong to the city that u lived in?)

☐ Evet ☐ Hayır

9. Aşağıdaki tanımlardan hangisi size göre kent mekânına (yerine) dair daha kapsamlı bir tanımlamadır? Lütfen tüm tanımları okuduktan sonra önem sırasına göre 1-4 arası bir değer veriniz. (1-Çok az önemli, 2- Az Önemli, 3- Önemli, 4- Çok Önemli)
(According to you which definitions below are more comprehensive for defining the urban place? Pls. read them all then grade them. Pls. Pick and give grades between the values 1-4. (1- Least important, 2- Less important, 3-Important, 4- Very important)

İnşa edilen, düzenlenen (Fiziksel olarak) Yer .....
Orda vakit geçirilen Yer .....
Anıların olduğu ve sizin için anlamlı olan Yer .....
Yaşanılan, tecrübe edilen ve orda var olunan Yer .....

10. Aşağıda güncel kent mekânlarına dair bazı olgular fotoğraflanmıştır. Sizce hangi resim grubu kent mekânı için daha olumsuzdur? Değerlendiriniz.
(The pictures below are related to some phenomenon in current urban place. Which set of picture is more negative in terms of urban place? Pls. evaluate them.)

10.a.

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz *(Negative)*

10.b.

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz*(Negative)*

10.c.

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz*(Negative)*

10.d.

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz*(Negative)*

11. Aşağıda güncel kent mekânlarına dair bazı olgular yazılı olarak ifade edilmiştir. Sizce hangi kelime grubu kent mekânı için daha olumsuzdur? Değerlendiriniz.
(The words below are related to some phenomenon in current urban place. Which set of words is more negative in terms of urban place? Pls. evaluate them.)

11.a.

İşaretler	Reklam Panoları	İkonik Mimari Ögeler
Heykeller	Tabelalar	Mistik ve Dini Semboller
Cephe Reklam Panoları	Totemler	

(Signboards, Statues, Decorated Facades, Advertisement Boards, Big Signs, Iconic Architectural Elements, Mythic & Religious Symbols)

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz *(Negative)*

11.b.

Kentsel Çöküntü Alanları	(Sadece) Tarihi Nitelikte Olan Kentler	Kullanılamayan Alanlar
Terkedilmiş Mimari Yapılar	Antik Kentler	Hatalı Mimari Ögeler
Metruk Kentsel Alanlar	Yarım Kalmış Kentsel/Mimari Ögeler	

(Abandoned Places, Urban Decay Areas, Historic Places, Antique Cities, Failed Architectural Elements, Unfinished Projects)

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz *(Negative)*

11.c.

Tematik Konut Siteleri	Sahte, Taklit Kent Kullanımları	Aşırı Büyük Kent Elemanları
Tematik Parklar	Alt-Ütopik Kentsel/Mimari Ögeler	Aşırı Küçük Kent Elemanları
Su Parkı, Disneyland, Lunapark	Replika (Taklit) Mimari Yapılar	Sentetik/Sanal Mimari

(Thematic Residential Places, Thematic Parks, Disneyification, Museumization, Thematization, Replication, Synthetic Places, Gigantism, Miniaturization in Architecture & Urban Design)

Olumlu *(Positive)* ☐1 ☐2 ☐3 ☐4 ☐5 Olumsuz *(Negative)*

APPENDIX B

RESULTS OF QUESTIONAIRE

The objective of this questionnaire is to identify the sense of atrophy by gathering the lived-in experiences of participants. The questions are prepared in regard to the main framework of the thesis. The questionnaire is asked from both; place and the Atrophy of Place, to obtain a consistent information. In general, the results are analyzed in four main parts, being the validity test, personal information, quick questionnaire and responsive data analyses. This part is covering the explanations and the final result of the questionnaire.

Validity Test:

The validity test is the main part of the survey, testing the validity of the thesis framework and, the compatibility of each questionnaire. The questionnaire is composed of correlated questions in responsive data analyses. The answers should be compatible to sustain the validity. Hence, two kinds of validities must be sustained by the questionnaire. These are internal validity and framework consistency.

First, the result of the questionnaire has to sustain an internal validity. It is expected that the sorting of answers will be in the same ascending/descending order, to maintain a trustful questionnaire in the responsive data analyses part (The peer questions are 9, 10, and 11). A valid questionnaire can have maximum one shifting answer in each set

of questions, depending on personal taste. Otherwise, the result is to be found irrelevant and, it is not going to be taken in consideration.

Second, the results of the questionnaire has to be consistent with the thesis framework. Framework consistency is the primary analysis examining the main framework of the study. It is expected for the answers to be in ascending order (Questions: 9, 10 and, 11). There might be perfect consistency, semi-consistency or inconsistency at all among the results. The percentage of consistency is going to give us an information about the accuracy of the main framework.

Among 367 questionnaires, 324 questionnaires have been counted in the internal validity. 43 of 367 are not taken in consideration. So, the result is going to be based on 324 questionnaires. 280 of 324 questionnaires have been counted as consistent to the framework of the thesis. 44 of 324 have been found inconsistent with the framework of the study. It can be stated from the validity analyses that the survey is 86,42 percent consistent with the thesis regarding to the lived-in experiences of participants. In other words, the survey showed %86,42 confidence to the thesis by % 13,58 deviation. Moreover, % 17,90 of results has shown perfect consistency, while %68,52 of them has been semi-consistent. %13,58 of them has been inconsistent, yet there was no perfect inconsistent result observed.

Table B.1: Framework Consistency in Questionnaire

	Total Valid Questionnaire	Perfect Consistent	Semi-Consistent	Inconsistent
Number of Questionnaires	324	58	222	44
%	100,00%	17,90%	68,52%	13,58%

Source: Questionnaire

Personal Information of the Participants:

One of the main contributions of this thesis is the addition of experience component in place identity. Place experience is involving the other components of place identity. That is why, main aim of the questionnaire is to identify urban place experience of the

participants. The place experience is highly related to age, education level and, profession. Hence, the questionnaire has been classified according to the personal information of each participant. Even though the place experience is personal, the questionnaire has been looking forward to investigating collective experiential tendencies.

At first, according to the thesis the sense of the atrophy of place is felt more in elder participants rather than the younger ones, since they are more experienced than the younger ones. So, the sampling of the questionnaire is distributed in four distinct age groups, being 0-19, 20-25, 26-35, 36-65+. The amount of participants is shown in below Table-B.2. Secondly, the questionnaire is also distributed among genders. The distribution of gender is more or less equal, as shown below.

Table B.2: Distribution of Age & Gender

	0-19		20-25		26-35		36-65+		Total	
Gender	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Number of Participants	29	40	39	48	49	47	42	30	159	165
	69		87		96		72		324	
% of Gender	9,0%	12,3%	12,0%	14,8%	15,1%	14,5%	13,0%	9,3%	49,1%	50,9%
% of Participants	21,3%		26,9%		29,6%		22,2%		100,0%	

Source: Questionnaire

Third, the education level of the sampling is as seen in Table-B.3. The sampling's educational status is preferably high. Furthermore, the questionnaire is also investigating the profession, since the participants from the faculties of architecture might be biased. The questionnaire is also giving us information about how the members of the faculty of architecture and layman's answers are different (Table-B.4). The sampling level of the questionnaire is clustered to gather accurate information among the different age groups, genders, educational level and, profession.

Table B.3: Distribution of Educational Status

	Primary School	High School	Bachelor Degree	MA/ PHD	Total
# of Educational Status	34	113	134	43	324
%	10,5%	34,9%	41,4%	13,3%	100,0%

Source: Questionnaire

Table B.4: Distribution of Educational Profession

	Fac. Of Arch.	Others	Total
# of Profession	99	225	324
%	30,6%	69,4%	100,0%

Source: Questionnaire

Quick Questionnaire:

The place is a familiarity in experiences in-between the one's lived, learned or inherited patterns of experiences. The atrophy of place is the loss of place experiences. Therefore, there are four yes/no questions asked to the participants in the questionnaire to identify the sense of atrophy of place directly. The results are listed below (table-B.5). It is expected for the participants to answer the first three questions as yes and the last one as no. In brief, the quick questionnaire resulted in approximately %75 as expected. Only the last question, asking about the belongingness of the city that participants lived-in, has a %12 deviation.

Table B.5: General Distribution of Yes/No Questions

	Number of Participants		Percentages		
	Yes	No	Yes	No	Total
Q.5. Was it more pleasing in the past the city that you are living in? (Yaşadığınız kent mekanları (yerleri) eskiden daha mı güzeldi?)	244	80	75,31%	24,69%	324
Q.6. Do you miss the urban places that you had lived in? (Eskiden yaşadığınız kent mekanına (yerine) dair bir özlem duyuyor musunuz?)	242	82	74,69%	25,31%	324
Q.7. Have you ever felt the lack of place in the city you have been living? (Hiç yaşadığınız kent içerisindeki mekanın/yerin yoksunluğu veya yok olduğunu hissettiniz mi?)	238	86	73,46%	26,54%	324
Q.8. Do you feel that you belong to the city that u lived in? (Kendinizi yaşadığınız kente ait hissediyor musunuzu?)	119	205	36,73%	63,27%	324

Source: Questionnaire

Second, the quick questionnaires must be analyzed depending on the age groups. Accordingly, the place identity is strictly bounded to the lived, learned or inherited patterns of experiences; the expected results must decrease in youngsters and, increase in elders. As it is seen in Table B.6. below, the expectations are matching with the thesis framework except one. There is an acceptable deviation in 26-35 age group in the question 5.

Third, the quick questionnaires must be analyzed depending on the educational basis. The education level has increased the consciousness of oneself to the environment (Arnheim, 1969). The education is a type of learned experience. If Arnheim was right, the results of the quick questionnaire would be getting closer to the expected level in elders. As it was seen in the Table B.7, when the education level is increasing, the results are getting closer to the thesis's expectations.

Table B.6: General Distribution of Yes/No Questions Between Age Groups

		QUICK QUESTIONAIRE							
Questions		5		6		7		8	
AGE		Yes	No	Yes	No	Yes	No	Yes	No
0-19	#	37	32	32	37	33	36	38	31
	%	53,62%	46,38%	46,38%	53,62%	47,83%	52,17%	55,07%	44,93%
20-25	#	65	22	67	20	67	20	34	53
	%	74,71%	25,29%	77,01%	22,99%	77,01%	22,99%	39,08%	60,92%
26-35	#	83	13	80	16	77	19	27	69
	%	86,46%	13,54%	83,33%	16,67%	80,21%	19,79%	28,13%	71,88%
36-65+	#	59	13	63	9	61	11	20	52
	%	81,94%	18,06%	87,50%	12,50%	84,72%	15,28%	27,78%	72,22%

Source: Questionnaire

Table B.7: Distribution of Yes/No Questions Depending on The Educational Level

		QUICK QUESTIONAIRE							
Questions		5		6		7		8	
Educational Status		Yes	No	Yes	No	Yes	No	Yes	No
PS	#	15	19	18	16	16	18	20	14
	%	44,12%	55,88%	52,94%	47,06%	47,06%	52,94%	58,82%	41,18%
HS	#	86	27	78	35	76	37	41	72
	%	76,11%	23,89%	69,03%	30,97%	67,26%	32,74%	36,28%	63,72%
BD	#	105	29	110	24	107	27	46	88
	%	78,36%	21,64%	82,09%	17,91%	79,85%	20,15%	34,33%	65,67%
MA or PHD	#	38	5	36	7	39	4	12	31
	%	88,37%	11,63%	83,72%	16,28%	90,70%	9,30%	27,91%	72,09%

Source: Questionnaire

Table B.8: Distribution of Yes/No Questions Depending on The Profession

		QUICK QUESTIONAIRE							
Questions		5		6		7		8	
Profession		Yes	No	Yes	No	Yes	No	Yes	No
Fac. Of Arch.	#	82	17	83	16	85	14	29	70
	%	82,83%	17,17%	83,84%	16,16%	85,86%	14,14%	29,29%	70,71%
Others	#	162	63	159	66	153	72	90	135
	%	72,00%	28,00%	70,67%	29,33%	68,00%	32,00%	40,00%	60,00%

Source: Questionnaire

Last, the thesis must control whether the results of the quick questionnaire are biased or not, depending on the participants professions. The results between members of the faculty of architecture and other professions are compared in Table B.8. Although,

there is approximately %10-20 marginal deviation between the results; they remain consistent.

In brief, it would be stated that the thesis framework is compatible regarding the quick questionnaire's results. It is understood from the results that experience component of place has a profound effect on the place identity in a consistent and systematic way. So, the result are in line with the thesis.

Responsive Data Analyses:

Responsive data analyses are testing the main framework of the thesis by asking different types of questions, using definitions, visuals and word sets. It is composed of questions 9, 10 and, 11 in the questionnaire. The aim is to evaluate the responses of participants to the main framework of the research and, the categories of the atrophy of place.

First, participants are asked to sort the definitions related to the urban place from less comprehensive to more comprehensive by grading them. It is expected for the results to end up in an ascending order. Four definitions are identified elementarily,giving reference to space, context (space-time), meaning and, experience. The results are shown below in Table B.9. 58 of 324 participants graded perfectly at the end of the questionnaire by giving space (1), context (2), meaning (3), time (4). More surprisingly, half of the perfect grades (29 of 58) are not a member of faculty of architecture.

Table B.9: Distribution of Framework Analyses

	Question 9 - Framework Analyses			
	Space	Time	Meaning	Experience
#	637	846	1030	1083
%	17,71%	23,53%	28,64%	30,12%

Source: Questionnaire

Second, question 10 is designed to measure the visual responses of the participants towards the categories of the atrophy of place as it was written in the urban atrophy part 6.2. The pictures are categorized in terms of symbolic, contextual, temporal and experiential atrophy of place. Participants are asked to grade the set of images as positive or negative regarding to urban place (Grading between 1-5). It is expected for the results to end up with an ascending order as same as question 9. The results are shown in Table B.10 below. However, they are consistent with the expectations of the thesis; the values obtained from contextual, and temporal atrophy are more or less same. The reason is going to be explained at the end of this part.

Table B.10: Distribution of Visual Responses to the Categories of the Atrophy of Place

	Question 10 - Visual Response			
	Symbolic Atrophy	Contextual Atrophy	Temporal Atrophy	Experiential Atrophy
#	1005	1081	1086	1356
%	22,20%	23,87%	23,98%	29,95%

Source: Questionnaire

Third, question 11 is designed to measure wordily responses of participants to the manifestations of the atrophy of places. Participants are asked to grade word sets as positive or negative in terms of urban place. It includes first three of the categories (symbolic, contextual and, temporal). The aim of the question 11 is controlling the accuracy of responsive data of the first two questions (Question 9 & 10). As it is seen in the Table B.11. wordily responses are also consistent with the thesis and the questionnaire in general.

Table B.11: Distribution of Wordily Responses to the Manifestations of the Atrophy of Place

	11 WORDILY RESPONSE		
	Symbolic Atrophy	Contextual Atrophy	Temporal Atrophy
#	989	1076	1257
%	29,77%	32,39%	37,84%

Source: Questionnaire

Last, the responsive data is examined together with the personal information of the participants. As it is seen on the tables B.12, B.13, B.14, there are minor deviations in some groups marked in red. In general, the results of responsive data gathered from

the questionnaire are consistent with the thesis framework, including the results examined in different groups of participants depending on their personal information.

Table B. 12: Distribution of Responsive Data in Age Groups

		9 FRAMEWORK ANALYSES				10 VISUAL RESPONSE				11 WORDILY RESPONSE		
AGE		Space	Time	Mean.	Exp.	SA	CA	TA	EA	SA	CA	TA
0-19	#	140	164	207	248	189	191	245	296	202	217	272
	%	18,45%	21,61%	27,27%	32,67%	20,52%	20,74%	26,60%	32,14%	29,23%	31,40%	39,36%
20-25	#	168	238	287	290	285	311	291	365	269	279	329
	%	17,09%	24,21%	29,20%	29,50%	22,76%	24,84%	23,24%	29,15%	30,67%	31,81%	37,51%
26-35	#	181	251	308	330	293	303	330	412	292	302	386
	%	16,92%	23,46%	28,79%	30,84%	21,90%	22,65%	24,66%	30,79%	29,80%	30,82%	39,39%
36-65+	#	148	193	228	215	238	276	220	283	226	278	270
	%	18,88%	24,62%	29,08%	27,42%	23,40%	27,14%	21,63%	27,83%	29,20%	35,92%	34,88%

Source: Questionnaire

Table B. 13: Distribution of Responsive Data in Educational Status

		9 FRAMEWORK ANALYSES				10 VISUAL RESPONSE				11 WORDILY RESPONSE		
Educational Status		Space	Time	Meaning	Experience	SA	CA	TA	EA	SA	CA	TA
PS	#	66	86	92	123	91	88	109	147	94	108	131
	%	17,98%	23,43%	25,07%	33,51%	20,92%	20,23%	25,06%	33,79%	28,23%	32,43%	39,34%
HS	#	221	290	374	376	335	388	368	451	339	384	444
	%	17,53%	23,00%	29,66%	29,82%	21,73%	25,16%	23,87%	29,25%	29,05%	32,90%	38,05%
BD	#	271	353	434	445	426	439	452	571	405	431	507
	%	18,03%	23,49%	28,88%	29,61%	22,56%	23,25%	23,94%	30,24%	30,16%	32,09%	37,75%
MA or PHD	#	79	117	130	139	153	166	157	187	151	153	175
	%	16,99%	25,16%	27,96%	29,89%	23,08%	25,04%	23,68%	28,21%	31,52%	31,94%	36,53%

Source: Questionnaire

Table B. 14: Distribution of Responsive Data according to the Profession

		9 FRAMEWORK ANALYSES				10 VISUAL RESPONSE				11 WORDILY RESPONSE		
Profession		Space	Time	Meaning	Experience	SA	CA	TA	EA	SA	CA	TA
Fac. Of Arch.	#	175	249	319	344	318	350	361	425	300	316	401
	%	16,10%	22,91%	29,35%	31,65%	21,87%	24,07%	24,83%	29,23%	29,50%	31,07%	39,43%
Others	#	462	597	711	739	687	731	725	931	689	760	856
	%	18,41%	23,79%	28,34%	29,45%	22,35%	23,78%	23,58%	30,29%	29,89%	32,97%	37,14%

Source: Questionnaire

In conclusion, the thesis main framework and, the manifestations of the atrophy of place are found to be consistent; with minor deviations regarding the responsive data analyses. However, the results of contextual and temporal atrophy are seen to be quite close in visual response; its margin increased barely in wordily responses and definitions. The reason might be the visual impact of the manifestations of the temporal atrophy. Thematic places or derivatives are not negative visually by laymans, unlike the general opinion of the professionals. On the other hand, when temporal

atrophy is asked as a wordily, its margin is enlarged at the end. So, the thesis would be inferred from that the temporal atrophy would be a hidden process in visually.

Table B.15: Detailed Results of the Questionnaire_1

	VALIDITY TEST		PERSONAL INFORMATION												QUICK QUESTIONAIRE								RESPONSIVE DATA ANALYSIS									
			1. Age				2. Gender		3. Educational Status				4.Profession		5		6		7		8		9 FRAMEWORK				10 VISUAL RESPONSE				11 WORDILY RESPONSE		
#	INTERNAL VALIDITY*	FRAMEWORK CONSISTENCY**	0-19	20-25	26-35	35-65+	Male	Female	PS	HS	BD	MA or PHD	Fac. Of Arch.	Others	Yes	No	Yes	No	Yes	No	Yes	No	Space	Time	Meaning	Experience	Symbolic Atrophy	Contextual Atrophy	Temporal Atrophy	Experiential Atrophy	Symbolic Atrophy	Contextual Atrophy	Temporal Atrophy
1	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	4	3	5	5	4	5	5
2	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	1	4	3	3	5	3	4	3	4	5
3	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	3	3	4	4	2	2	3	1	3	2	2
4	1	1	1	0	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	1	0	1	2	4	3	3	5	1	4	1	3	2
5	1	0	1	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	4	3	2	1	4	5	1	4	3	4	2
[illegible]																																	
7	1	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	1	1	0	0	1	2	3	4	1	5	5	2	1	4	4	4
8	1	1	1	0	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	1	2	4	3	3	4	3	3	4	5	3
9	1	1	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	4	4	2	4	4	5	2	5	3	5	4
10	1	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	4	3	4	4	1	4	3	1	4
11	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	1	0	1	0	2	4	4	3	5	5	4	5	4	2	2
12	1	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	2	4	3	3	2	5	3	1	4	5	4
13	1	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	1	0	1	2	3	4	3	4	2	5	3	3	4
14	1	0	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	0	4	3	1	2	3	1	4	5	4	2	5
15	1	1	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	2	3	4	4	5	4	5	3	5	5
16	1	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	2	3	4	4	4	4	4	5	3	3	5
17	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2	3	4	5	5	3	5	1	3	5
18	1	1	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	3	4	4	3	5	3	5	5	5	2	5
19	1	1	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	2	4	3	4	3	3	5	4	3	5
20	1	0	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	3	4	1	2	5	5	5	5	3	5	2
21	1	1	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	2	3	4	3	5	4	5	3	5	4
22	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	3	4	2	4	5	5	4	5	4	5
23	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	2	4	4	4	4	5	3	4	3	2	3
24	1	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	2	1	3	4	4	4	3	5	3	3	5
25	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	3	4	2	3	5	5	5	1	4	5
26	1	1	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	4	4	4	4	4	3	5	5	5	3	5
27	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	3	4	4	4	4	3	4	1	4	3	3
28	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	4	4	2	4	4	4	5	4	3	4	4
29	1	1	0	0	1	0	0	1	0	0	0	1	1	0	0	1	0	1	1	0	1	0	2	3	1	4	3	5	4	4	2	5	3
[illegible]																																	
31	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	3	5	3	5	1	5	3
[illegible]																																	
33	1	1	0	1	0	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	2	4	3	4	4	5	5	4	4	5
34	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	2	2	1	4	2	1	5	5	1	3	5
[illegible]																																	
36	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	2	4	3	3	4	1	5	4	2	3
37	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2	3	4	3	5	4	4	3	4	4
[illegible]																																	
40	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	0	2	4	4	3	3	5	2	5	3	1	1
41	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	1	2	3	4	5	5	5	5	5	2	5
42	1	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	3	2	4	2	3	4	5	3	3	3
43	1	0	0	0	0	1	1	0	0	0	0	1	0	1	0	1	0	1	1	0	1	0	4	3	4	3	2	5	1	5	3	2	4
44	1	1	0	0	1	0	1	0	0	0	0	1	0	1	1	0	1	0	1	0	0	1	1	3	4	2	3	4	1	2	5	3	2
[illegible]																																	
46	1	1	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	3	3	4	3	2	2	4	3	2	4
47	1	1	0	1	0	0	1	0	0	0	1	0	1	0	0	1	1	0	1	0	0	1	4	4	3	4	1	4	4	5	4	3	5
48	1	1	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	1	4	3	4	3	4	3	4	4	2	2	2
49	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	2	4	3	4	4	4	5	2	2	3
50	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	4	4	4	4	3	5	3	4	2	2	3
51	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	4	2	3	4	5	5	5	4	4	5
52	1	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	3	4	2	3	3	2	3
53	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	3	3	4	4	4	3	3	3	4	3	4
54	1	1	0	1	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	0	1	0	1	2	4	3	3	5	2	4	4	2	3
55	1	1	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	1	0	0	1	1	3	2	4	4	5	1	3	2	1	4
56	1	1	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	1	0	0	1	1	3	2	4	3	5	3	4	4	3	2
57	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	2	4	3	5	5	5	5	3	3	4
58	1	1	0	0	0	1	1	0	1	0	0	0	0	1	1	0	1	0	1	0	0	1	4	3	4	3	5	1	1	3	3	3	5
59	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	2	1	3	4	5	5	5	5	5	3	5
60	1	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	2	3	4	5	5	5	5	5	5	5
61	1	1	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	3	4	2	4	3	5	2	4	5
62	1	1	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	0	1	0	1	0	3	3	2	4	5	5	2	4	2	3	4
63	1	1	0	0	0	1	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	3	2	1	4	3	2	1	4	4	3	1
64	1	1	0	0	1	0	1	0	1	0	0	0	0	1	0	1	1	0	1	0	1	0	4	3	2	4	5	1	1	5	2	1	3
65	1	1	0	0	1	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	4	4	4	4	4	3	2	2	3	2	5	4
[illegible]																																	
68	1	0	0	0	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	4	3	1	2	5	5	2	4	5	2	4
[illegible]																																	
70	1	1	0	1	0	0	0	1	0	0	1	0	1	0	0	1	1	0	1	0	0	1	1	2	3	4	2	3	4	5	2	3	4
71	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	0	1	1	0	1	0	2	4	3	1	5	1	4	4	3	5	4
72	1	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	4	3	2	3	5	5	4	4	3	4	4
73	1	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	3	4	4	3	3	4	4	5	4	5	5
74	1	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	1	2	3	4	3	5	3	5	3	5	5
75	1	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	1	0	0	1	4	4	3	3	3	5	3	2	4	3	5
76	1	1	0	0	0	1	1	0	0	1	0	0	0	1	0	1	0	1	0	0	1	1	2	4	4	4	5	3	5	5	5	5	5
77	1	0	0	0	0	1	1	0	0	0	0	1	0	1	0	1	0	1	0	1	1	0	2	1	4	3	4	5	5	3	4	3	4
78	1	1	0	1	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	3	4	4	4	4	5	3	5	3	4	3
79	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	2	4	3	4	5	5	5	5	5	5	5
80	1	0	0	0	1	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	4	3	2	4	5	5	3	3	4	3
[illegible]																																	
84	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	0	0	1	1	4	3	2	3	4	4	3	2	5	2
[illegible]																																	
87	1	1	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	0	1	0	0	1	3	4	4	4	2	4	3	4	3	2	3
88	1	1	1	0	0	0	1	0	0	0	1	0	0	1	0	1	1	0	1	0	1	0	1	3	2	4	2	4	4	4	1	2	4
[illegible]																																	
90	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	2	3	4	4	4	4	5	3	3	4
[illegible]																																	
92	1	1	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	1	4	2	4	5	5	5	5	5	5
93	1	1	1	0	0	0	1	0	1	0	0	0	0	1	1	0	1	0	0	1	1	0	1	2	4	3	3	5	2	4	4	5	1
94	1	1	1	0	0	0	1	0	0	1	0	0	0	1	0	1	1	0	0	1	0	1	3	4	3	2	3	1	2	4	3	5	2
95	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	3	3	3	3	3	2	4	3	3	3
96	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	4	4	4	4	4	5	5	5	2	3	1
97	1	0	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	1	0	4	3	2	1	4	2	1	4	4	2	1
98	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	3	4	4	4	3	2	4	1	3	1	3
99	1	1	1	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	3	4	3	3	4	5	2	4	5
100	1	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	2	2	3	4	3	4	5	5	4	5	5

Source: Questionnaire

Table B.16: Detailed Results of the Questionnaire_2

101	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	3	4	2	2	5	1	4	1	5	1
102	1	1	0	0	0	1	1	0	0	0	0	1	0	1	1	0	1	0	1	0	0	1	3	2	1	3	2	5	2	4	4	4	2
103	1	1	0	0	0	1	1	0	0	0	0	1	0	1	1	0	1	0	1	0	0	1	3	2	1	3	2	5	2	4	4	4	2
104	1	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	4	3	1	4	3	2	1	5	4	1
105	1	0	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	3	4	2	1	2	4	2	2	4	4	4
106	1	1	0	0	0	1	1	0	0	0	0	1	0	1	1	0	1	0	1	0	0	1	3	4	3	1	4	3	2	1	5	4	1
107	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	4	3	1	5	1	5	3
108	1	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	4	2	1	1	3	5	3	5	5	3	3
109	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	3	4	2	2	2	2	4	1	2	3
110	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	3	4	3	3	1	5	2	4	1	5	2
111	1	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	1	2	3	4	1	3	4	2	4	3	1	2
112	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	3	4	2	2	3	2	2
113	1	0	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	2	1	4	5	5	4	5	5	5	4
114	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	0	1	0	1	1	2	4	3	5	5	2	4	5	5	1
115	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	1	1	0	1	2	4	3	5	5	2	4	5	5	1
116	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	1	1	0	1	2	4	3	5	5	2	4	5	5	1
117	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	0	1	1	2	4	3	2	3	4	5	3	2	4
118	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	2	3	5	4	3	2	4
119	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	3	2	4	3	4	2	5	3	4	2
120	1	1	0	0	1	0	1	0	0	0	0	1	0	1	0	1	0	1	1	0	0	1	1	3	4	2	1	5	3	4	2	4	1
121	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	0	1	0	1	1	0	1	2	3	4	2	5	5	4	5	4	4
122	1	1	0	0	1	0	0	1	0	1	0	0	0	1	1	0	1	0	0	1	0	1	2	4	3	1	2	2	1	1	2	5	3
123	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2	4	3	3	4	5	5	2	5	5
124	1	1	1	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	2	2	4	4	4	5	3	4	2	3	5
125	1	1	1	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	5	5	3	3	1	1	5
126	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	4	3	3	5	4	3	2	5	4
127	1	1	0	0	0	1	1	0	0	1	0	0	0	1	0	1	1	0	1	0	1	0	1	2	4	3	4	5	3	4	2	5	2
128	1	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	0	1	0	0	1	4	3	2	1	5	1	4	5	4	5	3
129	1	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	0	0	1	0	1	3	2	1	4	4	4	1	2	4	5	3
130	1	1	0	0	0	1	0	1	1	0	0	0	0	1	1	0	1	1	0	1	0	0	1	4	4	4	3	5	5	4	4	4	5	3
131	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	1	1	0	1	2	4	3	5	5	2	4	5	5	1
132	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	0	1	1	0	1	2	4	3	5	5	2	4	5	5	1
133	1	1	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0	1	1	0	1	0	1	2	4	3	5	3	5	5	5	3	5
134	1	1	0	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	0	1	0	1	1	4	4	4	4	5	5	5	1	3	5
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136	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	2	3	4	4	3	3	5	4	3	2	5
137	1	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	1	0	1	1	0	1	3	4	2	1	4	1	5	3	1	3
138	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	2	5	3	4	3	5	2
139	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	2	1	4	3	4	2	4	2	2	4	2
140	1	1	0	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	3	4	2	4	2	3	4	3	5
141	1	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	2	3	4	3	2	4	3	4	2	3
142	1	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	4	3	2	2	5	3	4	1	4	5
143	1	1	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	0	1	2	3	4	2	4	1	3	2	5	4
144	1	0	0	0	0	1	0	1	1	0	0	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	3	5	2	4	2	5	5
145	1	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	1	1	0	2	1	4	3	3	1	4	2	5	1	5	4	4
146	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	0	1	4	2	3	3	5	2	4	1	4	5	4	5
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148	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	2	5	4	3	2	5	5
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156	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	1	0	1	0	0	1	0	1	2	4	3	3	5	2	5	3	5	3
157	1	1	1	0	0	0	1	0	0	1	0	0	0	1	0	1	0	1	1	0	0	1	2	3	4	1	4	5	3	5	3	5	2
158	1	1	0	0	0	1	1	0	1	0	0	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	4	5	3	5	3	5	3
159	1	1	0	0	0	1	0	1	1	0	0	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	4	5	3	5	3	5	3
160	1	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	0	1	0	1	3	4	2	1	4	5	3	5	3	5	3
161	1	0	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	2	3	4	1	2	5	2	5	1	5	3
162	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	0	1	1	0	2	3	1	4	1	2	3	5	1	2	5	
163	1	1	0	0	0	1	1	0	0	0	0	0	0	1	1	0	1	0	1	0	0	1	1	4	3	3	1	4	1	1	1	1	2
164	1	1	0	1	0	0	1	0	0	0	1	0	0	1	0	1	1	0	1	0	1	0	2	1	3	3	3	4	1	5	2	1	4
165	1	1	0	1	0	0	1	0	0	0	0	0	0	1	1	0	1	0	1	0	1	0	2	2	4	4	3	4	2	5	2	2	1
166	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	0	1	0	4	2	3	4	4	1	2	1	3	1	2
167	1	1	0	0	1	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	1	0	1	3	4	2	4	2	1	3	5	2	5
168	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	5	5	2	4	5	5	1
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171	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	0	1	1	2	3	4	5	2	5	4	5	5	3		
172	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	1	4	4	4	4	3	3	3	3	3	3
173	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	4	4	4	4	3	3	3	3	3	3	3
174	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	4	4	4	4	3	3	3	3	3	3	3
175	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	4	4	4	4	3	3	3	3	3	3	3
176	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	4	4	4	4	3	3	3	3	3	3	3
177	1	1	1	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	1	0	1	0	2	2	4	3	1	5	2	3	2	5	1
178	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	5	5	2	4	5	5	1
179	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	5	3	4	5	4	2	5
180	1	0	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	4	3	2	2	5	1	2	3	5	4
181	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	2	1	3	4	3	5	5	1	5	5	5
182	1	1	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	3	4	5	4	4	3	5
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184	1	0	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	4	3	2	3	3	2	2	5	2	2
185	1	1	0	0	0	1	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	1	3	4	2	2	5	1	3	5	2	2
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187	1	0	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	4	3	2	3	4	2	5	4	3	5
188	1	1	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	1	0	2	4	4	4	5	2	4	2	3	5	2
189	1	1	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	1	1	0	2	4	4	4	5	2	4	2	3	5	2		
190	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	0	3	2	1	4	4	1	5	5	3	3	5		
191	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	1	0	1	0	1	0	4	3	2	1	5	4	2	3	3	4	2	
192	1	0	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	4	3	2	3	4	1	5	2	4	2
193	1	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	1	0	1	1	0	4	3	2	1	5	4	3	5	4	5	4	
194	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	4	2	3	4	4	1	5	3	5	1
195	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	3	5	1	4	3	4	5
196	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	5	5	2	4	5	5	1
197	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	5	5	2	4	5	5	1
198	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	4	4	4	4	5	4	4	5	1	1	3
199	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	0	1	1	0	1	2	4	3	4	5	3	4	5	3	4
200	1	1	0	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	1	0	1	0	1	4	3	2	5	5	4	5	5	2	3

Source: Questionnaire

Table B.17: Detailed Results of the Questionnaire_3

201	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	5	4	2	3	3	4	2
202	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	3	1	2	4	3	5	5	4	1	5	3		
203	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	4	4	4	3	4	5	4	3	2	4	5
204	1	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	4	3	2	5	5	3	5	5	1	3
205	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	3	4	2	5	5	4	5	5	2	3
206	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	0	1	0	2	3	1	4	1	3	1	5	3	1	2
207	1	0	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	4	3	1	5	5	4	5	4	1	4
208	1	1	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	5	5	5	5	5	5	5
209	1	1	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	1	0	2	3	1	4	1	3	1	5	3	1	5
210	1	0	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	1	4	3	2	2	3	1	3	2	4	3
211	1	1	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	1	2	4	3	5	5	3	5	5	1	3
212	1	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	1	0	1	0	1	0	1	2	4	3	5	5	5	5	3	3	3
213	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	4	3	3	3	5	2	1	5	3	1	3
214	0	0																															
215	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	4	4	4	5	5	5	5	5	5	5
216	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	1	3	2	4	2	1	4	5	2	4	5
217	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	3	2	4	2	1	5	5	2	3	5
218	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	1	1	5	5	2	3	5
219	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	1	1	5	5	2	3	5
220	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	2	1	5	5	1	4	5
221	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	0	1	1	0	2	3	1	4	1	1	5	5	3	4	4
222	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	3	4	2	1	4	5	5	5	5	5
223	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	0	1	1	0	1	2	1	4	1	1	5	3	3	4	5
224	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	1	1	5	5	2	4	3
225	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	0	1	1	0	1	0	3	4	4	4	5	4	5	5	3	2	4
226	1	1	1	0	0	0	0	1	1	0	0	0	0	1	0	1	0	1	1	0	1	0	1	2	3	4	2	1	5	4	2	3	5
227	1	1	0	1	0	0	1	0	0	0	1	0	1	0	0	1	1	1	0	1	0	1	3	2	4	4	3	4	5	3	2	2	3
228	1	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	2	2	5	5	3	4	5
229	0	0																															
230	0	0																															
231	1	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	1	1	0	2	3	3	4	1	1	5	4	5	4	5
232	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	1	1	0	0	1	0	1	1	2	4	3	2	1	4	3	2	4	5
233	1	1	1	0	0	0	0	1	1	0	0	0	0	1	0	1	1	0	0	1	0	1	1	2	3	4	1	1	5	5	2	3	3
234	1	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	1	4	2	3	1	1	4	4	3	5	5
235	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	3	2	4	2	1	4	4	3	5	5
236	1	1	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	2	3	3	4	2	1	5	5	1	3	4
237	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	3	3	4	3	1	4	5	4	3	5
238	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	0	1	0	1	1	0	3	2	3	4	4	2	4	5	5	3	5
239	0	0																															
240	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	0	1	0	1	0	1	3	2	3	4	2	1	5	5	4	4	5
241	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	2	3	4	2	3	3	5	3	2	5
242	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	3	2	3	4	3	2	4	5	3	2	5
243	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	2	3	4	1	2	5	5	5	5	5	5
244	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	1	0	1	1	0	2	2	3	4	3	2	4	5	4	3	5
245	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	0	3	2	2	4	4	1	4	5	2	2	5
246	1	1	0	0	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	1	0	3	3	3	4	3	3	5	5	2	4	5
247	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	0	1	0	1	1	2	4	3	2	2	4	5	1	3	3
248	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	0	2	3	3	4	3	1	5	5	4	4	5
249	1	1	1	0	0	0	0	1	1	0	0	0	0	1	0	1	1	0	0	1	1	0	2	2	3	3	1	1	4	5	1	3	5
250	1	1	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	1	3	4	3	1	5	3	1	2	4
251	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	1	2	3	4	2	1	4	5	2	1	3
252	1	1	1	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	3	3	3	4	3	2	5	4	4	3	5
253	1	1	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	1	3	4	3	1	5	5	2	4	5
254	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	3	4	4	3	2	4	5	4	3	5
255	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	0	1	1	0	1	2	3	4	1	2	3	4	2	1	4
256	1	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	2	1	5	5	1	2	4
257	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	2	3	4	1	1	3	4	1	2	4
258	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	5	3	2	4	4	3	2
259	0	0																															
260	1	1	0	0	0	1	0	1	1	0	0	0	0	1	1	0	1	0	1	0	0	1	1	1	2	3	4	2	2	5	4	5	5
261	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	3	4	3	3	3	2	3	2	1	3	5
262	1	1	1	0	0	0	0	1	1	0	0	0	0	1	0	1	1	0	0	1	1	0	2	3	3	4	2	1	4	5	4	3	5
263	1	0	1	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	4	2	3	5	4	2	4	5	4	2
264	1	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	0	1	1	0	1	2	3	4	1	2	4	5	2	3	5
265	1	1	1	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	3	2	4	4	3	2	5	4	5	5
266	1	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	3	1	4	5	1	3	5
267	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	4	5	3	4	4	5	2
268	1	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	1	0	1	2	3	4	4	3	2	4	5	3	3	4
269	1	1	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	2	1	3	4	2	3	4	5	4	3	5
270	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	2	1	3	4	2	2	5	5	2	3	4
271	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	0	1	0	1	1	0	1	4	3	2	4	5	2	3	5	1	4
272	0	0																															
273	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	1	0	1	0	3	2	3	4	3	1	4	5	4	3	5
274	0	0																															
275	1	1																															
276	1	1	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	0	2	3	4	3	4	4	5	4	3	4	5
277	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	2	2	3	4	2	2	4	5	4	4	5
278	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	3	2	3	4	2	1	5	5	2	4	5
279	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	2	1	3	4	3	2	4	5	5	4	5
280	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	2	1	4	3	2	2	4	3	4	3	3
281	1	1	1	0	0	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	1	0	2	1	3	4	2	1	4	5	4	3	5
282	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	1	2	3	4	2	3	5	5	4	2	5
283	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	2	1	3	4	2	1	4	5	2	4	5
284	1	1	1	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	1	0	0	1	2	1	3	4	2	1	5	4	3	4	5
285	1	1	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	4	3	4	4	3	2	4	5	4	3	5
286	1	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	2	3	4	4	2	5	5	2	3	5
287	1	1	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	2	3	4	1	2	3	4	1	2	4
288	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	1	0	1	3	3	4	1	2	5	4	2	1	4
289	1	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	2	3	4	4	3	2	4	5	4	5	5
290	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	1	1	4	4	2	3	5
291	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	2	1	4	3	2	1	5	3	2	1	4
292	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	3	4	4	3	4	5	4	4	5	5
293	1	1	0	0	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	1	2	3	4	3	2	4	3	3	2	5
294	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	4	3	3	3	4	3	4	5	5
295	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	1	0	0	1	3	4	4	4	3	5	5	5	4	5	5
296	1	1	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	4	2	3	3	5	3	4	3	4	5
297	1	1	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	1	3	2	4	2	5	4	4	3	5	5
298	1	1	0	1	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	4	3	4	4	4	2	4	5	5	4	5
299	0	0																															
300	1	1	0	0	0	1	0	1	1	0	0	0	0	1	1	0	0	1	0	1	0	1	2	3	4	3	2	3	4	5	2	2	4

Source: Questionnaire

Table B.18: Detailed Results of the Questionnaire_4

301	1	1	1	0	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	0	1	1	2	4	3	3	3	4	5	4	3	2	4
302	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	0	1	3	2	3	3	3	3	4	2	3	2	3
303	0	0																															
304	1	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	4	3	3	4	4	5	4	4	4
305	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	1	0	3	3	4	4	3	2	4	5	3	2	4
306	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	0	1	0	1	2	1	3	4	3	2	4	5	4	5	5
307	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	2	4	3	3	3	3	4	3	3	3
308	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	1	0	1	2	3	4	2	3	4	5	3	4	5
309	1	1	0	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	1	2	4	3	4	4	3	3	3	4	4
310	1	1	1	0	0	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	1	0	2	1	3	4	3	4	3	5	4	3	5
311	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	1	0	3	3	4	3	3	3	4	3	4	3	3
312	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	1	4	3	4	4	3	4	2	2	3
313	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	2	2	3	4	3	3	3	3	3	3	3
314	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	1	0	1	0	1	2	4	3	3	4	3	4	2	1	1
315	1	1	0	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	1	0	0	1	2	3	3	4	4	3	4	5	4	5	4
316	1	0	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	4	2	3	1	5	3	2	4	5	4	3
317	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	3	4	3	2	3	2	4	3	2	4
318	0	0																															
319	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	3	2	4	3	2	3	4	3	2	4
320	1	1	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	3	3	4	4	3	4	3	5	4	4	5
321	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	4	3	2	5	3	4	1	3	4
322	1	1	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0	1	0	1	0	1	1	3	2	3	3	5	4	1	3	4	4
323	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	0	1	1	2	3	4	2	2	3	4	2	3	4
324	1	1	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	0	1	0	1	0	4	1	2	3	2	5	1	3	3	4	5
325	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	3	2	4	5	2	4	5
326	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	3	2	3	4	3	2	5	5	4	3	5
327	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	3	4	4	3	5	2	3	3	4	4
328	1	0	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	4	3	2	1	4	3	1	2	3	2	2
329	1	1	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	2	3	4	5	2	3	5
330	1	0	0	0	1	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	1	4	3	2	2	3	2	1	3	4	1	1
331	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	3	4	5	5	3	4	5
332	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	3	4	4	3	4	4	3	2	1	3
333	1	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	3	3	1	4	3	3	2
334	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	0	1	0	1	1	0	1	2	4	3	2	4	3	5	4	3	5
335	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	3	4	3	3	3	2	4	4	4	4
336	1	0	0	0	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	3	4	2	1	3	5	1	4	3	5	2
337	1	1	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	1	1	0	0	1	1	2	4	3	3	3	2	4	4	5	2
338	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	3	4	5	5	3	4	5
339	0	0																															
340	0	0																															
341	1	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	4	2	5	5	3	4	5
342	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	4	4	4	4	3	2	5	4	4	5	5
343	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	3	4	4	2	1	3	4	3	3	3
344	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	0	1	1	2	4	3	2	2	3	4	1	2	4
345	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	1	0	0	1	3	2	3	4	1	4	5	5	4	3	5
346	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	1	0	1	1	0	3	3	4	4	3	3	3	4	2	4	4
347	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	1	1	0	1	0	2	1	3	4	2	2	1	3	2	1	4
348	1	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	1	2	4	3	3	4	2	4	5	5	5
349	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0	1	0	2	2	3	4	4	3	4	5	4	2	3
350	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	1	2	3	4	1	2	3	5	2	3	5
351	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	0	1	0	1	3	3	4	4	3	3	3	4	4	3	5
352	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	2	3	3	4	2	3	2	4	4	3	5
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354	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	2	3	2	4	2	1	3
355	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	2	2	3	4	3	3	4	5	2	3	5
356	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	2	4	3	3	2	3	5	2	3	5
357	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	1	0	0	1	1	0	2	1	3	4	2	3	4	5	1	3	5
358	1	1	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	2	3	4	2	1	3	5	3	2	4
359	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	0	1	2	3	2	4	2	4	2	4	4	3	5
360	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	2	3	4	4	3	3	2	5	3	4	5
361	1	1	0	0	0	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	3	4	4	3	3	4	5	3	4	5
362	1	1	1	0	0	0	0	1	0	1	0	0	0	1	1	0	1	0	0	1	1	0	3	3	4	4	3	2	3	4	2	1	4
363	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	0	1	0	0	1	0	1	3	3	4	4	3	3	2	5	3	2	4
364	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	4	3	3	2	3	5	2	4	5
365	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	3	3	4	3	3	3	3	4	2	1	4
366	1	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	2	3	4	2	3	2	4	3	4	5
367	1	1	0	0	1	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	1	3	2	3	4	3	2	3	5	3	2	5
SUM	324	280	69	87	96	72	159	165	34	113	134	44	99	225	244	80	241	82	238	86	120	205	637	846	1030	1083	1005	1081	1086	1356	989	1076	1257

* Results of the all the responsive data analyses must be more or less compatible in either ascending or descending order. Maximum 2 optional deviation is excepted.

** Is it appropriate with the thesis framework or not? Maximum 1 deviation is accepted in the framework analyses. Simmilar grades are also accepted.

Source: Questionnaire

APPENDIX C

MECHANIZATION

Mechanization has changed the means of the space-time concept. It causes a more transitory built environment. This part is explaining how mechanization affects horizontal and vertical crowding in urban space. And how mechanization has brought a new sense of spaciousness.

> "One of the spheres in which we have gone beyond Greece is in the comprehension of movement. The urge to explore movement- that is, the changing in all its forms – determined the channels through which flow our scientific thought and ultimately our emotional expression." (Giedion, p.14, 1955)

First, in 18th century the interest on perspective left its place to movement and representation of it. Transportation was the main issue since the medieval walls were demolished, and urban macro form had started to diffuse. Mechanization of movement enables large settlement areas for huge crowds. There were 12000 coaches in the 17th century in Paris (Kostof, p.59, 1992). In 1830's the first horse-drawn omnibus services implemented in Paris and London. At the end of the 19th century, both those cities had an electrical tramway system. Although the first steam engine was produced in the 18th century, the usage in private vehicles it was not practical. Until the last quarter of 19th, there was not any private automobile on streets (Barlas, p. 113-115, 2006). The first private car that took the attention of the public, was Ford T in 1908. Later on, the first assembly line and the production line will be established by Henry Ford.

> "A great difference between the cities we have studied so far and the city of today (1970's) is the application of mechanical power to the movement of man through space. This relatively recent development sets up an entirely different kind of time-

> space perception. Up to this point, the rate of speed of movement through space was much the same whether a person walked, rode on horseback or drove a carriage. Thus, the urban designer dealt with one basic system of perception." (Bacon, p.240, 1967)

Second, the combination of two materials: iron and glass had changed the ordinary space concept. Iron made it possible to design huge structures. Also, with the implementation of new industrial methods, cast-iron enabled the production of mega structures in a shorter span of time. On the other side, the use of glass, tinted glass introduced a new understanding of inside and outside. While enlarging visual contact, it also has weatherproof traits. In other words, it boosts visual sense but limits tactile, vocal, smell senses. The earliest forms of shopping malls were constructed by covering the streets with cast-iron and glass. "The standard image is of 19th century arcades: glass-roofed, exclusively pedestrian, and adorned with bilaterally symmetrical interior facades."(Kostof, p.230, 1992) (For example Palais Royal (1829) in Paris). Sennett stated that "glass could dissolve the barriers of experience between inside and outside." (p.106, 1992) On the other side, one of the most important inventions that affected urban life was the door lock. It changed the definition about public/private and inside/outside spheres totally. The public became more public and private became more private.

Moreover, cities extend not only horizontally but also, vertically. New construction solutions have been introduced. Steel frame and iron was used as a skeleton for buildings. Steel frame made it possible to construct higher buildings that were never built before. Harper & Brother's Building (1854) was the first cast-iron skeleton-building, having an entirely glass-covered facade in New York. "The first building of true skeleton type was the chocolate works constructed in 1871-72 by Jules Saulnier" near Paris and, the first skyscraper was Home Insurance Company Building in Chicago in 1883-85. Also, the Crystal Palace was first used for the industrial exhibition that combines it with leisure facilities, in London in 1851. It was followed by Paris exhibitions starting from 1855. "The public was introduced not only to the new technical achievements but also to completely new aesthetic values". (Giedion, p.263, 1971)

The elevator emerged as a solution to a vertical engineering problem. The first passenger elevator was installed in a department store in New York, in 1857, and exhibited in Europe in 1867. It was installed in Eiffel Tower[113] in 1889 (Giedion, 1955, 1971). Eiffel Tower is an expression of the modern experience of space. It was a result of an engineering research rather than an architectural one. Furthermore, at the edge of the city, the balloon frame made it possible to produce units" like a box". Private housing and suburbanization have exploded with respect to easy construction techniques.

> "We do not think that this is due to any lack of talent, but rather believed the society gradually killed any creative impulse with the poison of its ruling taste" (Giedion, p.277, 1971).

In brief, the new means of space-time concepts evaporated the old features of built environment. For instance: "By the second half of the 19th century, the distinction between "Avenue" and "Boulevard" in Europe had largely evaporated."(Kostof, p.252, 1991). Malls took the places of shopping districts. Distinctive houses converted to the uniform apartment blocks and suburban houses. The "ugly" and "temporary" became a must with industrial machines.

[113] Eiffel Tower & Crystal Palace were the first architectural products of world expositions. EXPO's has already been going on reflecting our position to environment. Interestingly, the field used for Expo Milano 2015's is going to be transformed into an agricultural land after it finalized. It is built to transform, to be demolished, and lost after its temporary spatial experience.

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PUBLICATION

1. KESİM B. The Boulevard as a Communication Tool; Atatürk Boulevard, 2009
2. KESİM B. Bir İletişim Aracı Olarak Bulvar; Atatürk Bulvarı, Şehir Plancıları Odası, Planlama Dergisi, 2010/2
3. KESİM B. Ankara Kent Merkezi'nin Dönüşümü: Geçmiş-Bugün-Gelecek, Atatürk Bulvarı: Bulvardan Cadde'ye, edited by Güldal G.Fehim M.G., TMOBB Şehir Plancıları Odası Ankara Şubesi, p.p. 38-46, April, 2013
4. KESİM B. & CELEP S. Catalogue.01: Metu Master of Urban Design, Bodrum Peninsula Urban Project & Başakşehir Urban Design Competition, p.p. 120-127, Edited by Çalışkan O. 2016
5. KESİM B. The Atrophy of Place, Designing Urban Design: Towards A Holistic Perspective, Metu Press, 2016

HOBBIES

Sailing, swimming, motorcycles, aquascaping