UNIVERSITY CAMPUS DESIGN

IN SPATIAL, SOCIAL AND POLITICAL CONSIDERATIONS

A THESIS SUBMITTED TO

THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES

OF

MIDDLE EAST TECHNICAL UNIVERSITY

BY

BERKAY ILGAZ

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

THE DEGREE OF MASTER OF SCIENCE

IN

URBAN DESIGN

FEBRUARY 2014

Approval of the thesis:

UNIVERSITY CAMPUS DESIGN
IN SPATIAL, SOCIAL AND POLITICAL CONSIDERATIONS

submitted by **BERKAY ILGAZ** in partial fulfillment of the requirements for the degree of **Master of Science in Urban Design in City and Regional Planning Department, Middle East Technical University** by,

Prof. Dr. Canan Özgen
Dean, Graduate School of **Natural and Applied Sciences**   _____

Prof. Dr. Melih Ersoy
Head of Department, **City and Regional Planning**   _____

Assoc. Prof. Dr. Adnan Barlas
Supervisor, **City and Regional Planning Dept., METU**   _____

Examining Committee Members:

Assoc. Prof. Dr. Ela Babalık Sutcliffe
City and Regional Planning Dept., METU   _____

Assoc. Prof. Dr. Adnan Barlas
City and Regional Planning Dept., METU   _____

Assoc. Prof. Dr. Müge Akkar Ercan
City and Regional Planning Dept., METU   _____

Assist. Prof. Dr. Osman Balaban
City and Regional Planning Dept., METU   _____

Prof. Dr. Güven Arif Sargın
Architecture Dept., METU   _____

Date: February 7th, 2014

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name: Berkay Ilgaz

Signature:

ABSTRACT

UNIVERSITY CAMPUS DESIGN
IN SPATIAL, SOCIAL AND POLITICAL CONSIDERATIONS

Ilgaz, Berkay

M.S. in Urban Design, Department of City and Regional Planning

Supervisor: Assoc. Prof. Dr. Adnan Barlas

February 2014, 151 pages

The subject matter of this research is university campus design, and it is discussed in a wider framework of some of the general concerns of the field of urban design. In this study the concept 'campus' is not only taken as model of university settlement, but in a broader sense, any type of space on which higher education institutions are found. The problem is defined in both a universal scale of the general issues and practices developed in the post industrial cities, and the case of Turkish higher education institutions founded in the recent years. The theoretical discussion is based on three main concepts essential to this research, which are place, society, and policy. The text presented in this thesis includes a general research on the history of universities and the evolution of university campus space, a theoretical framework based on review of the related literature, and the evaluation of the collected data regarding to the university campus design practice. The main aim of the study is to understand the nature of campus space, which is capable of producing a sense of community through shared rituals and face-to-face interactions. Also it is aimed in this research to understand to policies and how they could affect the formation of such interactions. The campus of the Middle East Technical University is chosen as a case for the empirical study, for a survey to reveal the configuration of such policies in the built environment.

Keywords: Place, Society, Policy.

ÖZ

MEKANSAL, TOPLUMSAL VE POLİTİK DEĞERLENDİRMEDE ÜNİVERSİTE KAMPÜS TASARIMI

Ilgaz, Berkay

Yüksek Lisans, Kentsel Tasarım, Şehir ve Bölge Planlama Bölümü

Tez Yöneticisi: Doç. Dr. Adnan Barlas

Şubat 2014, 151 sayfa

Bu araştırmanın esas konusu üniversite kampüs tasarımıdır ve kentsel tasarım alanının genel meselelerini kapsayan geniş bir çerçeve içerisinde tartışılmıştır. Bu çalışmada kampüs kavramı sadece bir üniversite yerleşke modeli olarak değil, daha geniş bir anlamda, üzerinde yüksek eğitim kurumlarının bulunduğu her türlü mekan olarak ele alınmıştır. Problem tanımı, hem endüstrileşme sonrası şehirlerinin sorunları ve uygulamalarını kapsayan evrensel bir çerçevede, hem de son yıllarda Türkiye'de kurulan yüksek eğitim kurumları örneği çerçevesinde yapılmıştır. Teorik tartışma, bu araştırma için esas olan üç kavram üzerine kurulu olup, bu kavramlar yer, toplum ve politika olarak belirlenmiştir. Bu tezde sunulan metin, üniversitelerin tarihi ve üniversite kampus mekanının gelişimi üzerine genel bir araştırma, ilgili literatürün taraması üzerine kurulu bir teorik çerçeve ve elde edilen verilerin üniversite kampus tasarım pratiği bağlamında bir değerlendirmesini içerir. Bu çalışmanın ana amacı, ortak ritüeller ve yüz yüze ilişkiler üzerinden kurulan bir topluluk hissi üretebilecek kampüs mekanının özelliklerini kavrayabilmektir. Ayrıca bu araştırmada, belirtilen ilişkilerin şekillenmesi üzerinde etkili olabilecek politikaların anlaşılması da hedeflenmektedir. Bu politikaların yapılı çevre üzerindeki biçimlenmesini ortaya koymak için, Orta Doğu Teknik Üniversitesi kampüsü ampirik çalışma alanı olarak seçilmiştir.

Anahtar Kelimeler: Yer, Toplum, Siyasa.

ACKNOWLEDGMENTS

Assoc. Prof. Dr. Adnan Barlas not only supervised this thesis but also supported the whole research process with his profound knowledge and experience in the field of study.

Members of the examining committee inspired and guided the course of this research with their valuable ideas and comments in their varied areas of expertise.

The ultimate contributor to this study is none other than my better half and closest colleague Özge Engür, who has reviewed every single idea that shaped up this thesis with great patience and never ceased to provide full support.

The contributions of all are hereby gratefully acknowledged.

TABLE OF CONTENTS

LIST OF TABLES

TABLES

LIST OF FIGURES

FIGURES

CHAPTER 1

INTRODUCTION

Different professions of the built environment approach urban design in different ways. When people with architectural background face problems of urban design, they usually tend to interpret the setting as a group of buildings. However, just like any other environmental design problem, the basic concept to be dealt with is the space. In both architectural and urban scales the medium to work on is as not only the solid, but also the void as well. In this regard, dealing with a group of buildings creates much more potential relations then the sum of the relations taking place in each one of the buildings. Of course, there are several other elements and concepts of urban design, but comprehending the nature of these relations is an intriguing challenge for an architect.

In all fairness, a 'group of buildings' may mean many things, and examples can be produced of a variety of combinations, such as a housing estate, a business park, a military base, a commercial complex, or a mixture of different uses and functions. Among all the alternatives, the subject matter of this research will be the design of university campuses. A university campus should be a great field of study, since it brings together and combines different functions, such as education, accommodation, leisure, sports, cultural activities, etc. This aspect of university campus makes it a subject matter worthy of study.

Nevertheless, the real concern of this thesis consists of much broader concepts of the field of urban design to be discussed. In this regard, the university campus is not the exclusive matter of debate but rather a real world scene in which the concrete traces

of the theoretical discussion can be sought. In other words, university campus is a means to an end, in discussing some general concepts in the field of urban design, and the same discussion may be transferred into practice in other types of urban design implementations, as well. However, this should not mean that the university campus theme should be disregarded; instead, it provides a most convenient medium for the proper contextualization of the discussion in so many qualities, such as its variety of the functions, institutional history, role in social development, and many other aspects to take into consideration.

1.1. Problem Definition

The problem to be concerned in this research can be defined in two different levels. The first of these is the universal aspect of it. In this sense, first one needs to understand the historical evolution of the approaches to university campus design. After several centuries of development following its foundation in the 11th century, universities faced their greatest yet obstacles after the industrialization, in many different aspects.

The 20th century witnessed endeavors to restructure the universities, in both their educational policies and spatial configurations. In terms of space, the university cannot be considered separately from the general movements in the field of urban design. The reaction to the shifting paradigms caused by the industrialization has been the CIAM meetings and the principles manifested in the Athens Charter. After a few decades of domination of the Modern Movement, as it is referred to, criticisms have risen up, mainly by Team 10. Ultimately, in a large period of the 20th century, university campus design approaches have been dominated by CIAM and Team 10 principles.

Although having many positive qualities, such as healthy environment or the high amount of natural daylight, these approaches to urban design were also criticized in the second half of the century. Among many others, Jon Lang defines these theories as 'normative' rather than 'positive', and they were based on the advocacies of

different schools of thought rather than the requirements of the users.[1] On the other hand, Oscar Newman argues that the disappearance of intermediary spaces and loss of territorial control caused by the modernist schemes could be related to lack of social interaction and even urban violence.[2] All in all, today universities are considered to be not only institutions of formal learning but also a place for social interaction of its members. The ever-changing education policies also require appropriate approaches in the university campus design practice. In universal aspect, such approaches should be sought in order to achieve a successful configuration of the university campus.

On the other hand, certain problems university campuses observed in Turkey are also an essential part of this research. The purpose behind the foundation of new universities in Turkey has been quite different, especially in the last decade, compared to the historical evolution of universities in the western world. Between 2006 and 2008, only in a short period of three years, 41 new universities have been founded in Turkey, as a result of a governmental policy: "a university for each province".[3]

The process of foundation of the new universities also includes the construction of new sites and buildings. However, this hustle in reaching a controversial goal, created many university spaces which were equipped with only the very basic requirements of education. Many of these universities have nothing more than a shelter designated for education or accommodation. It is hard to tell if this improvement in quantitative sense also has a correspondence in a qualitative manner, too or if these kinds of spaces are sufficient in providing the social interaction possibilities among their users. In brief, while such universities lack in the essential policies in educational and institutional manners, and their campuses lack in the quality of its space.

---

[1] Lang (1987)
[2] Newman (1972)
[3] Kavili Arap (2010)

1.2. The Aim of the Thesis

This thesis aims to find out the relationship between the designed space and the users of it and the relationship between the users themselves affected by the designed space in everyday life. Also the thesis will aim to find out the desired properties of university space which could provide and increase the relationship of the users and provoke a sense of belonging and appropriation. The data obtained by this research should be of such nature to inform and inspire architects, urban designers and landscape architects involving in design of university campuses and also other types of building complexes, as well. The outcome of this research is desired to be a derivative of a "criteria for campus design", but instead of providing technical information, it should develop a theoretical framework and philosophical background in order to provide efficient design policies, for creating the spaces to produce social interaction of the university members.

1.3. Theoretical Framework

The basic considerations of this research are specified to be spatial, social and political, and all these concepts are discussed in relation to human. The first one of these concepts to be covered is 'place'. Place is the medium by which architects, urban designers and landscape architects connect with the users of the designed space. There seems to be something which makes a place, something more than the aggregate of the every single material of the built environment.

In order to understand the true nature of it, the concept of place will be discussed based on the ontological perspective of 20th century philosopher Martin Heidegger. Heidegger criticized the Cartesian outlook to existence, and he defined being as a meaningful interpretation of the thing.[4] Although, dictionary defines place as *"a particular position, point, or area in space; a location,"*[5] a place comes into existence only when it is perceived, exploited and in Heideggerian terminology 'dwelled' by human. In brief, place concept will be discussed broadly in this

---

[4] Günay (2005)
[5] Oxford Dictionary

framework, also including interpretations of it by certain architects and theorists, including Kevin Lynch, Eduardo E. Lozano, Christian Norberg-Schulz, and Kenneth Frampton.

Afterwards, the discussion will move on to the concept of society. Initially, human behavior and its relation to the formation of society will be covered first in terms of Jungian theories on rituals, and then the motivation behind the behavior will be discussed according to Maslow's hierarchy of needs. After that, the fulfillment of the needs will be analyzed in terms of its relation to place and social interaction. In this section, several concepts will be discussed such as, public, private and intermediary spaces, territory, territorial control, territorial markers and behavior setting. Most of the discussion on these concepts will be based on the theories and ideas of Oscar Newman and Jon Lang.

The last concept of the theoretical framework, policy, will actually be directly related to the previous concepts and the case study, as well. First, the environmental history of METU is covered in relation to the local and global policies behind its foundation. And finally, the research will be concluded with the evaluation of the selected case according to the theoretical discussion presented until then.
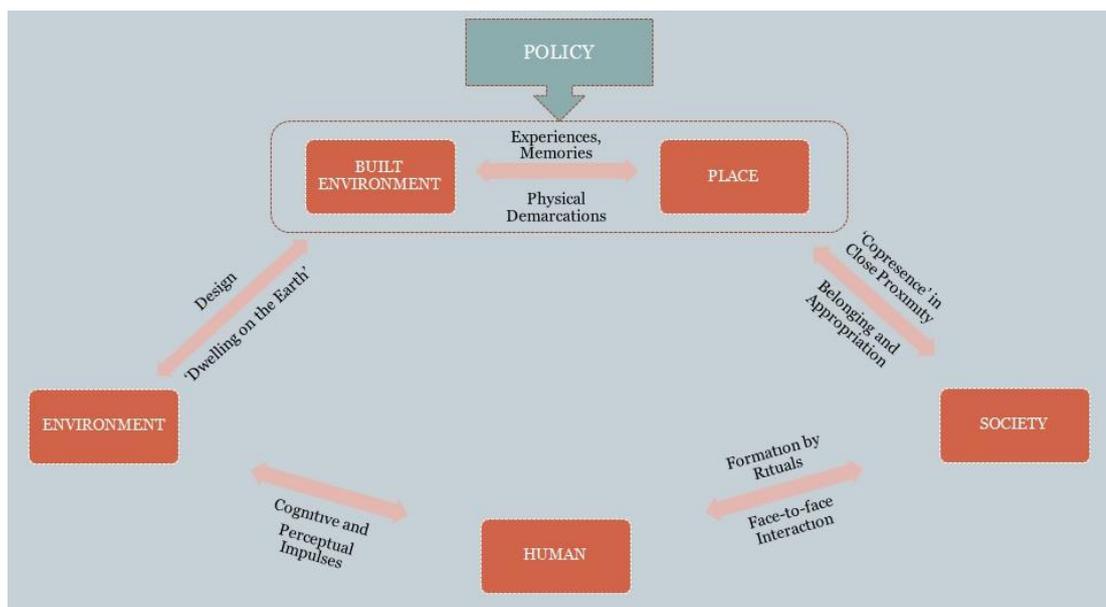
Figure 1.1: Interrelation of the concepts of the thesis

1.4. Main Question

The main question of the thesis is:

- How can the designer develop a theoretical framework and philosophical background in order to provide efficient design policies for university campus design?

1.5. Sub Questions

The sub questions of the thesis are:

- What is place?
- How does place come into existence?
- What is the role of the environmental designer in creating the place?

- What are the motivations behind human behavior?
- How are human needs related to society?
- How are human needs related to place?
- What characteristics of place are useful in providing for the needs of the human?

- How does politics make use of place in order to interfere in human and society?
- What are the spatial elements that the environmental designer can use as tools to implement their design policies?

1.6. Hypothesis

The hypothesis suggested in this thesis is:

- Designers of university campuses can make use of certain elements of the built environment, in order to sustain the operation of their design policies, which could provide a more extensive level of education through the promotion of social interaction.

1.7. Contents

This thesis consists of seven chapters.

Chapter 1 is entitled 'Introduction' and gives information about the general structure of the thesis.

Chapter 2 is entitled 'University' and provides the necessary background information to know about this research. A basic definition of university is made and its brief history is covered from the ancient Greek higher education institutions, to the foundation of universities in the Medieval Europe, to the modern day.

Chapter 3 is entitled 'Campus' and consists of two main sections. In the first section, the historical evolution of the university campus is explained, divided into geographic categories of Continental Europe, Great Britain and America; followed by the 20th century practices, dominated by CIAM and Team 10 movements. The second section of this chapter includes brief information about the characteristics of the contemporary campus, discussing the concepts such as, pedestrian campus, neighborhood unit, population and growth.

Chapter 4 is entitled 'Place' and marks the beginning of the theoretical discussion. The concept of place is discussed in terms of Martin Heidegger's ontological outlook. The roles of human and designer in creation of the place and architectural interpretations of Heidegger's philosophy are sub topics.

Chapter 5 is entitled 'Society' and includes a discussion about human behavior, needs, and the role of place and society in the process of fulfillment of these needs. The concepts of territory and intermediary spaces are also covered in this chapter.

Chapter 6 is entitled 'Policy' and introduces the case study of Middle East Technical University, including a brief environmental history in the beginning. The traces of theoretical discussion in the built environment are searched and presented in this chapter.

Chapter 7 is entitled 'Conclusion' and is the last chapter of the thesis. It includes a brief summary of the whole discussion and the findings of the research.

1.8. Methodology

The general structure of the thesis is based on two research methods, which are compilations and evaluations based on literature review and empirical study based on investigating and observation practices on the selected site. For the background information about the main discussion, history of university, history of campus and characteristics of contemporary campus are compiled and brought to the attention of the reader in the beginning of the thesis. Afterwards, several theoretical frameworks were selected on a series of concepts related to the discussion. Within these frameworks once again a review of the literature is presented. At this point, it should be noted that the same research could be conducted within different theoretical frameworks and different outcomes can be acquired. In other words, this research can be considered a positive analysis, only as much as the theories it is based on. After the introducing of the whole theoretical discussion, an empirical study is conducted, in which the Middle East Technical University campus is selected as a case study. In this part of the research, the practical provision of the theoretical discussion is widely based on the personal investigation and observation of the author.

CHAPTER 2

UNIVERSITY

Education is perhaps one of the oldest activities which signify the existence of human civilization. While the transfer of simple empirical knowledge of a lifetime to following generations seems to be a very basic instinct, in order to provide the survival of descendance; the systematic transmission and teaching of aggregate knowledge led to the emergence of formal education concept and institutions as well.

In order to understand modern universities in terms of their spatial and physical entity, one needs to understand their structural organism as well. Although this study is about the approaches to university campus design, it is considered very useful to provide general information about the concept of university itself and its historical evolution beforehand the main discussion.

In this chapter, first of all general information will be provided about universities, including its conceptual entity, history and the evolution of higher education institutions throughout the centuries. A brief research will be presented starting from the antiquity, followed by the middle ages, formation of the first modern universities until today. In this sense, both symbolic and structural evolution of these institutions and the spatial transformation of their built environment will be the topics of concern.

After the discussion of the university concept, this time the campus will be taken into consideration. Since the main subject of this thesis is university campus, it is essential to also understand the historical and conceptual evolution of the campus

space. Thus, a brief research about campus will also be covered in this chapter. This includes the emergence and spatial evolution of campus, as well as the relationship between the university (as an institution) and the campus space and the relationship between the campus space and the city. Also, brief information about the structure of a campus will be discussed in this chapter, such as the physical qualities, functions/activities included in campus, the location of the campus in the city, etc.

Finally, the approaches to university campus design in the 20th century will be analyzed in detail. It was Enis Kortan who claimed that, the approaches to university campus design exhibits a strong correlation to the general ideas and principles generated in the field of urban design and city planning.[6] He also points out that, the university campuses designed in the 20th century are formed according to the principles of either CIAM or Team 10 in the respective timeline.[7] In this regard, it also seems important to present a brief research about the general ideas and principles generated in the urban design and city planning fields in the 20th century. Therefore, this chapter will also include information about CIAM, International Congress of Modern Architecture and Team 10, a group of architects and city planners emerged from and as a reaction to CIAM. These two movements basically dominated the field of architecture, urban design and city planning, throughout the 20th century.

With all the research presented in this chapter it is aimed to cover the approaches to university campus design, which is essential for the general aim of this thesis.

2.1. What is University?

University, by definition, is an institute of higher education and research where academic degrees are granted in a variety of fields and subjects. According to Wilhelm von Humboldt's model, a university should be founded according to the following principles:

---

[6] Kortan (1981)
[7] Kortan (1981)

1. University is an institution, where education and research activities should be conducted in collaboration and integrity, in several fields of science.

2. The difference of university from technical and vocational higher schools is that its basic function is to provide education and research regardless of a vocation motives.

3. University belongs to the people rather than state. The duty of the state should be limited to, assigning the professors, defraying the expenses to occur and to provide the necessary setting of freedom for the studies. Faculty members and students should be able to conduct education and research without being under any religious or political influence.[8]

Although there are also other schools of thought on university models, this definition is mentioned which gained recognition in Turkey, too.[9] Other models will be further discussed in the following pages.

The origins of the word university could be sought in Medieval Latin where it was derived from the word *universitas,* meaning corporation or union in general. This word was also derived from Classical Latin *unum* meaning "one" and *vertere* meaning "to turn" (as in towards).[10] Specifically the term was used as *universitas magistrorum et scholarium,* which roughly means "community of teachers and scholars". Despite what the common sense may imply, *universitas* is not related or in the meaning of "universality of knowledge". Instead the word states the fact that this institution of masters or professors *(magistrorum)* and scholars or students *(scholarium)* is a community, a corporation of people like other medieval guilds of the time.[11] This was to protect the rights and operations from any hostile outsiders.

---

[8] Kavili Arap (2010)
[9] Timur (2000)
[10] Nişanyan (2009)
[11] McCormick et al. (1953:282)

2.2. The History of the University

Usually, the forming process of the university as in the modern understanding of the word is dated back between 12th and 15th centuries, where they formed as students' or professors' guilds.[12] Although the exact dates are controversial, some of the oldest universities and their foundation dates are considered respectively as; University of Bologna (1088), University of Paris (1150), University of Oxford (1167) and University of Cambridge (1209).[13] Among these, many other universities also took form until the end of the Middle Ages all around Europe. These most deep-rooted university foundations of the world are located in today's modern European countries such as, Germany, Austria, Czech Republic, Poland, Switzerland, Italy, France, Spain, Portugal and England.

Figure 2.1: University of Bologna

---

[12] Tekeli (2003)
[13] Erçevik et al. (2011)

Although the roots of modern universities can be found in the 12th century, the history of higher education can be dated to a much older period.

2.2.1. Higher Education Institutes in Antiquity

Before the foundation of universities in the middle ages, traces of formal and systematic higher education institutions can be found in many different cultures all around the world. Some of this include; China, Japan, Egypt, India, Persia, Semitic People, etc.[14] However some of these cultures are either geographically too far to be in relation with the European University, or their accumulation of knowledge was transferred to Europe via ancient Greek culture. In this sense, it is found useful to cover a brief history of higher education in antiquity, started from ancient Greek and followed by Roman and early Christian periods, which are considered to be the basis of medieval universities.

Ancient Greece consisted of several hundred more or less independent city-states, rather than a single body kingdom. Due to this political structure, there occurred a certain level of variation among the cultures of Greek cities, as well as their education system. Sparta was the first one among other cities to stand out in terms of education. For one thing, Sparta had a public education system, where in many other Greek cities, education was private and only the rich could afford their children's education. McCormick defines the Spartan system of education as *"socialistic and utilitarian, designed solely for the benefit of the state and not for the individual."[15]* Moreover, the purpose of Spartan education was mainly to maintain military success. Physical strength was assumed so important that every newborn infant was presented to a committee of elders, and only if the committee decided that the boy was healthy and well-formed, he was allowed to live. Sick and deformed children were abandoned to death.[16] After the boy survives his first test of life, starts a very rough and mostly physical education until he becomes a proper warrior with the stamina and skills to defend his country.

---

[14] McCormick et al. (1953)
[15] McCormick et al. (1953, 99)
[16] Marrou (1982, 19)

Spartan education system, though attained great military success followed by power and many long years of wealth, was criticized to be lacking in other high virtues of mankind upon which the real stability of a nation depends.[17] Eventually, this lead to the decline of Spartan civilization where Athens would be the leading city state of Greece, in arts, learning, philosophy and democracy, as well as being the cradle of western civilization. Even though, the old Athenian education was similar to that of Sparta in terms of physical training, still the Athenians believed that the personal development of the individual was as much important for the benefit of the state.[18]

It was after the Persian wars (492 – 479 B.C.) when Athens started to develop its new education system which was influential for the later civilizations. The Sophists introduced extreme individualism and a politically motivated kind of education in the gymnasium stage. Socrates and his immediate successors Plato and Aristotle were the ones who build a solid foundation for the Athenian education system. The influence of these systematic philosophers are considered to be slight for their day, however the content of education led to some of the most note-worthy intellectual and aesthetic achievements especially in the patristic and medieval periods.[19]

Plato's *academia* and Aristotle's *lyceum* were the two important and influential educational institutions of the time. There is evidence that western civilizations took interest in these schools, since even the denomination was transferred to today's institutions. Although, there are no direct structural junctions between ancient Greek schools and modern universities, the Europeans took great interest in Hellenistic resources on a variety of subjects including; art, architecture, philosophy, literature, history, medicine, science, etc. The "re-birth" of ancient knowledge movement which spanned the period roughly from 14th to 17th centuries is known as Renaissance.

---

[17] McCormick et al. (1953)
[18] Graves (1970, 31)
[19] McCormick et al. (1953)

Figure 2.2: "The School of Athens" by Raphael, fresco located in the Apostolic Palace in Vatican City, 1509-1511

Modern science owes to ancient Greek in many ways, since they set the main principles in many fields such as, mathematics, applied sciences, medicine, etc. But more importantly Greek scientific understanding served as a model in terms of being saved itself from sorcery in explaining the facts of nature, in other words, being "rational". Indeed, it was the ancient Greek who indicated that natural events were based on "certain rules" and the order of nature is "understandable".[20] Moreover, philosophy is considered to be started in ancient Greek, hence the origin of the word. Unlike the old eastern conception, they peeled themselves of the religious outlook and tried to understand the world based on "reason".[21]

However, there exists a gap in the timeline of the evolution of universities. At least 600 years set apart the direct relationship between ancient Greek schools and medieval University, thus the process recommenced from the stage of religious education institutions.

---

[20] Tanilli (1999:36)
[21] Tanilli (1999:37)

The Greek education system was very much appreciated and adopted later by the Romans. However, there were also significant distinctions between the two systems. Roman education in regard to Greek is defined by McCormick as follows:

> *"The education of Rome, unlike that of Greece, was decidedly practical in character. Through their absorption of Greek culture, the Romans devised a system of schools consisting of elementary and grammar schools, schools of rhetoric, of philosophy, of law, and also of medicine. Due to their practical bent, the Romans likewise achieved a world empire and perfected a system of law which is the basis of every code in all countries of Western Europe except England."*[22]

Figure 2.3: Relief found in Neumagen near Trier, a teacher with three discipuli, 180-185

Although Romans had their own education system almost as old as the Greek, the contribution of Roman culture to the western civilization only slightly relied on it. The old Roman education was considered to be mostly civic and practical, and was rather informally transferred to the next generations usually in the family or the forum. However, the civic and practical understanding of Romans combined with the Greek accumulation of knowledge, led to the creation of a widespread legal system, a universal religious organization, and other institutions for modern society.[23]

---

[22] McCormick et al. (1953, 164)
[23] Graves (1970, 60)

The last stream of education to exercise control over Europe before the foundation of the universities was the early Christian period. Defending the doctrines of the Church and fighting against paganism were the very first motives of Christians. Monastic schools, having spread rapidly in the West, parish schools maintaining elementary education and episcopal (or cathedral) schools for training the clergy were established mostly for religious studies.[24] By the end of the 8th century during the reign of Charlemagne, certain improvements were implemented on the existing education system. Systematic education of the laity, besides of the clergy, and a new curriculum including the "seven liberal arts"[25] were introduced.[26] And finally the development of scholastic education through contact with the Greek philosophy, in the beginning of the 12th century was the last of the major educational progresses before the establishment of university.

2.2.2. Medieval University

As mentioned before, university emerged towards the end of the Middle Ages, around 12th century in Europe. (See: Table 2.1) McCormick explains the foundation of the university as follows:

> *"The renaissance of the twelfth century began with the monastic and cathedral schools and ended with the earliest universities. (…) The twelfth century expanded the courses of study in the curriculum of the Seven Liberal Arts which furnished the basis of university studies and led to the development of the professional faculties of law, medicine, and theology."*[27]

The list of the oldest extant universities in Europe in accordance with their dates of foundation is as follows:

---

[24] McCormick et al. (1953, 315)
[25] "Seven liberal arts" consisted of grammar, rhetoric, dialectic (eventually being classed as the *trivium* or lower studies), arithmetic, geometry, music and astronomy (as the *quadrivium* or higher). While this curriculum was not a broad one, the scope came to be much wider than would be supposed, eventually covering a wide field of non-religious studies. (Graves, 1970, 75)
[26] McCormick et al. (1953, 315)
[27] McCormick et al. (1953, 280)

Year	Name	Contemporaneous Location	Current Location
1088	University of Bologna	Commune of Bologna	Bologna, Italy
1150	University of Paris	Kingdom of France	Paris, France
1167	University of Oxford	Kingdom of England	Oxford, United Kingdom
1209	University of Cambridge	Kingdom of England	Cambridge, United Kingdom
1218	University of Salamanca	Kingdom of León	Salamanca, Spain
1222	University of Padua	Commune of Padua	Padua, Italy
1224	University of Naples Federico II	Kingdom of Sicily	Naples, Italy
1240	University of Siena	Republic of Siena	Siena, Italy
1241	University of Valladolid	Kingdom of Castile	Valladolid, Spain
1290	University of Coimbra	Kingdom of Portugal	Coimbra, Portugal
1303	University of Rome la Sapienza	Papal States	Rome, Italy
1308	University of Perugia	Commune of Perugia	Perugia, Italy
1321	University of Florence	Republic of Florence	Florence, Italy
1343	University of Pisa	Republic of Pisa	Pisa, Italy
1348	Charles University of Prague	Kingdom of Bohemia	Prague, Czech Republic
1361	University of Pavia	House of Visconti	Pavia, Italy
1364	Cracow Academy	Kingdom of Poland	Kraków, Poland
1365	University of Vienna	Holy Roman Empire	Vienna, Austria
1385	Ruprecht Karls University of Heidelberg	Holy Roman Empire	Heidelberg, Germany

Table 2.1: The oldest extant universities in Europe

From the given explanation, it is understood that the transfer of knowledge ever since the period of Athenian schools, has turned into an expansion of knowledge in this period. Thus, in addition with the interaction of masters and students, the universities came into existence. However, each of these institutions had its own peculiar origin. Universities founded in different parts of Europe, formed under different conditions. Moreover, these conditions made each of these medieval universities, the focus of a specific study and a model for the succeeding universities. For example, courses in medicine arose at Salerno, in civil and canon law at Bologna and in theology at Paris. Also, regarding the geographical positions of these institutions, University of Bologna became a model for many other universities in South Europe and University of Paris became one for those in the North.[28]

Though, most of the studies in the universities were secular at this point, still they were more or less under religious or royal control, too. Popes and sovereigns granted privileges by charter to various universities[29] and even some were created by papal or imperial decrees. Also, in some northern universities originated from University of Paris, the students elected a rector to represent only the student body at the beginning. The chief administrative official however was a representative of the Holy See.[30] As the method of education, usually the lecturer read and explained the related manuscripts (*lectio*) or training in debate was practices among the students (*disputation*). Some of these debates were even accessible to the public (*disputation quadliberales*) which exhibits a relation of university with the city.[31]

The universities of the middle ages have contributed greatly to the world both in terms of knowledge and their institutional organizations. Many of the administrative and academic arrangements of the modern education institutions were inherited from the medieval university.[32] They were also open to developments based on the needs of the society. The impact and influence of religious orders were still valid upon the

---

[28] Graves (1970, 108)
[29] Graves (1970, 108)
[30] McCormick et al. (1953, 283)
[31] Kortan (1981)
[32] These arrangements include for example, academic degrees, ceremonial traditions, organizational processes, even the gowns worn by scholars for necessary occasions.

university and many of them organized in the universities, especially in the north.[33] Also in the later middle ages, the rise of the "burgher class" and the formation of merchant and craft guilds led to the foundation of guild schools where a practical education in reading, writing and reckoning was afforded.[34]

Figure 2.4: A lecture at a medieval university showing Henricus de Alemannia reading a text from the lectern to students. Ca. 1360-1390, Manuscript illumination

2.2.3. Renaissance, Reformation and the Modern Education

Renaissance is mentioned by Tanilli as the leading force of modernism as well as the inheritor of the medieval. To put it more clearly, he adds that, renaissance is a step between middle ages and the modern world in the West.[35] Besides the literal meaning of the word "re-birth" referring to the augmenting interest in the classical

---

[33] McCormick et al. (1953)
[34] Graves (1970)
[35] Tanilli (1999, 80)

manuscripts of ancient Greek and Roman cultures, it is also important to understand the conjuncture of the periodic evolvement. Basically, renaissance covered the period between 14th and 17th centuries all around Europe but yet without a homogeneous dispersion. Most scholars consider renaissance to be born in Italy (more specifically in Florence) in the 14th century and spread around Europe towards the North. While renaissance is related to many great achievements, intertwining in a cause-effect relation, such as geographical discoveries, innovation of printing press, emerge of the bourgeoisie, etc. the most important aspect of renaissance that affected the education system was the rise of humanism.

The reproduction of Greek and Roman written resources indicates a gradual incline since the emergence of universities till the expansion of renaissance. (See: Figure 2.5) The interest in ancient manuscripts once again put human in the center of the philosophical outlook. Also higher education was rearranged according to this outlook. Humanities became the chief elements of the curriculum which remained effective until modern times. However this does not necessarily mean that Europe abandoned theological studies or interest in Christianity. In fact, some of the notable patrons of renaissance were popes[36] and many humanist scholars were involved closely in religion.[37] However, even theologians and priest started to form a new understanding of Christianity where human was modeled as the center of religion. Against the medieval understanding where clergymen formed a privileged community, Luther's ideas promoting citizenship and human oriented outlook of belief revolutionized the Catholic world.[38] Eventually, Luther was supported by some of the European princes who intended to strengthen their power against the Emperor and the new Protestant Church was founded.[39] In this new conjuncture, state control instead of the papal influence over education increased especially in England, Scotland and the Protestant German principalities.[40]

---

[36] McCormick et al. (1953, 430)
[37] Tanilli (1999, 81)
[38] Graves (1970)
[39] Tanilli (1999, 88)
[40] McCormick et al. (1953, 430)
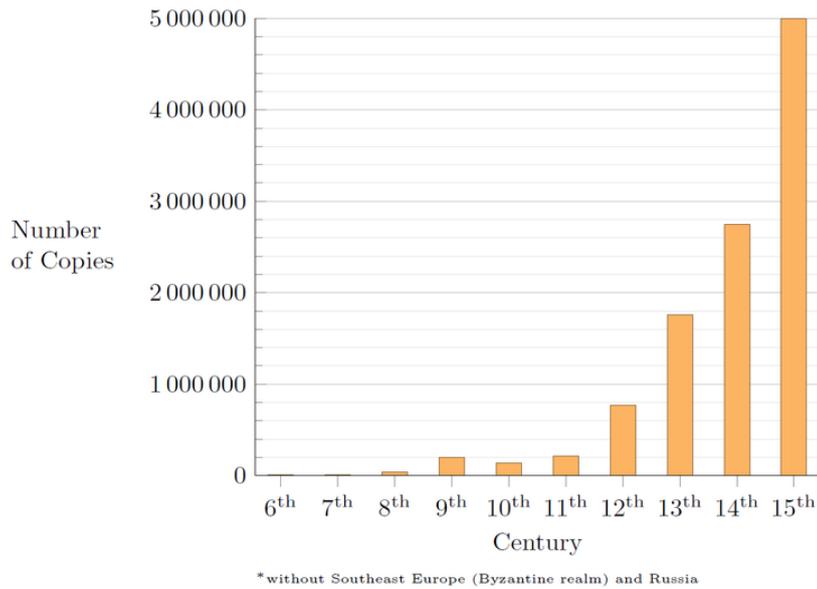
Figure 2.5: European output of manuscripts 500-1500

Finally, the humanistic approach of renaissance scholars led to the exploration of knowledge in a very broad manner and formed the basis of the modern world. In this period the curriculum of the universities transformed continuously in accordance with the dominant ideologies of each era and society but the organizational structure more or less remained the same. Today's modern universities took their final form approximately in the last two centuries. By the end of the 18th century, universities published peer-reviewed academic journals periodically which constituted the foundations of research universities. In 19th century many universities in continental Europe were closed by Napoleon, and the French universities grew into a body of the state and their purpose was redefined as training elite personnel in accordance with the ideology of the central government.[41] By this means, European universities combined with the elementary education systems gained a national character.

However, intellectual reactions arose in Prussia against the developments under French influence. Wilhelm von Humboldt was assigned as Minister of Education to reorganize the education system of Prussia. In the meantime, Humboldt also performed the foundation of University of Berlin (at the present time known as Humboldt University) which eventually became the model of many modern

---

[41] Kavili Arap (2010, 4)

universities around the world. Some of the fundamental characteristics of Humboldt model include; establishment of specialized chairs and institutes, scientific and organizational autonomy, tenure system[42] which provided job security to professors and the accessibility of university by all the members of the society.[43] Though some aspects of Humboldt's model may be considered utopian and could not be practiced completely, it still forms the basic structural and organizational qualities of many of today's modern universities.

The evolution of the university is an operation in progress and many other developments have been achieved in detail in the 20th century and up to present day. These developments occurred in accordance with the general ideologies and philosophical outlooks of their era and location. For example, some of the important improvements took place in the American universities and influenced the rest of the world. Yet, the aim of this section is to provide a brief history of the university in order to understand its historical progress in respect to the general course of history. Hence, a long period from ancient Greek to modern Europe was covered which exhibits a pattern of continuity and influence in a sequential manner. Following this, in accordance with the general aim of the thesis, the "spatial" history of the university, namely the evolution and development of the university campus will be analyzed.

2.3. Summary of the Chapter

University is an institute of higher education and research where academic degrees are granted in a variety of fields and subjects. Its name is derived from *"universitas"* meaning corporation in Latin, referring to the union of students and teachers who formed the first universities, in middle ages.

The earliest traces of universities can be dated back to the antiquity. Plato and Aristotle's schools and the philosophical grounds they produced, have been adopted

---

[42] Tenure is a senior academic's contractual right not to have his or her position terminated without just cause.
[43] Kavili Arap (2010, 5)

by the Romans and later all of the Europeans. However, first universities did not show up until 11th century. Universities of Bologna, Paris and Oxford were the first ones to be founded and became model institutions for their successors all around Europe. Throughout the centuries, the education in universities evolved in accordance with the general developments of human civilization.

Although, educational institutions have existed in many different cultures throughout history, an organic process of development can be observed from the Athens schools to the modern university. The autarkical organization of teachers and students in the medieval ages, led to a dominant process of development in Europe, and eventually spread out to the whole world. Furthermore, the development of the university space, in other words the campus, also shaped in a progressive way in the western world, and the discussion will continue on this subject.

CHAPTER 3

CAMPUS

The word "campus" commonly bears the meaning of *"a certain land on which a university and other related institution buildings are situated".* The word was derived from Classical Latin "camp" meaning vast field and campus originally meant garrison, a military camp based on a field.[44] It was not until 18th century when campus was used to mean university grounds, specifically used to describe the College of New Jersey (now Princeton University) by then. Although the word gained popularity to describe any given university grounds after 1945,[45] campus-like settings have always been in existence since the establishment of the first universities back in 12th century. Therefore, ignoring the anachronism it leads to, the word "campus" will be used to describe any kind of university grounds throughout this thesis.

3.1. The History of the Campus

The approaches towards campus design have displayed a few varieties until the 20th century. These approaches were mostly shaped by the location and general tendencies of the society. For example, the campuses in British Isles differ from those in continental Europe which also differ among them as North and South Europe. On the other hand, campus design followed a distinctive path in America, too. In this section, various university campus models will be covered. First of all, the spatial characteristics of Oxford and Cambridge Universities, which have been very influential on almost every other university founded afterwards, will be

---

[44] Nişanyan (2009)
[45] Nişanyan (2009)

mentioned. Then, the developments in campus design strategies in America will be analyzed starting with the earliest colleges found in the colonial period and including different architectural movements until the 20th century. Finally, the last century until today will be discussed where major improvements in the field of architecture and city planning emerged. Many movements in these fields including CIAM, Team 10, post-modernism among other dominated the 20th century, intrinsically exercising influence over university campus design.

3.1.1. Oxbridge

As mentioned before some of the first universities besides protecting their institutional character also acted as models in that sense for the universities founded afterwards. Such examples are University of Bologna for South Europe and University of Paris for the North. However, ultimately two of the most influential ones emerged outside continental Europe, in Great Britain. Universities of Oxford and Cambridge, often collectively referred to as Oxbridge, are the oldest universities in England bearing resemblance to each other in terms of institutional characteristics. With their strong tradition, Oxbridge became a model for many other universities founded in the British Isles and Europe and America as well.[46]

In the beginning, in continental Europe, the university was not a lot more than a gathering of teacher and students in a convenient and modest lecture hall. Usually, university activities took place in the buildings rented by the masters and larger events such as examinations and assemblies took place in churches and convents.[47] Some of the universities decided to locate themselves in relatively smaller and thriving cities in order to reduce the living cost of the student. However, the union of university members had no tangible presence within the city yet.[48] It was in 15th century when University of Paris started to procure property and build a number of lecture halls, colleges, lodgings and churches. The physical presence of the university caused its location on the south bank of the Seine to be called as *"Quartier*

---

[46] McCormick et al. (1953)
[47] Coulson et al. (2011, 2)
[48] Coulson et al. (2011, 2)

Latin".[49] In the meantime, similarly to the Parisian experience, the desire to have purpose-built academic facilities led to the existence of school districts in many cities around Italy and Spain. Coulson et al. marks the importance of this progress as follows:

> *"As the Renaissance progressed, universities old and new acquired befitting academic quarters, comprising lecture theaters, assembly rooms, chapels, libraries and lodgings. These structures, often incredibly lavish, were physical manifestations of the omnipresence of the European university, a visible sign that the university had evolved from a loose association of scholars and masters into an institution."*[50]

With this transformation of space and property relations, the bond between university and city got stronger. University towns became bearer of the institutions' character. The most iconic expression of this is the universities of Oxford and Cambridge. These institutions differ from the ones in continental Europe by means of their collegiate structures. Accommodation is one of the primary needs of any university but only in England they turned into corporate bodies of student unions under the teaching and guidance of masters.[51] Thus, the distinctive character of British universities was formed as a central university body and several autonomous colleges. These colleges are fully independent legal entities within the university, owning their own buildings, employing their own staff and managing their own endowments.[52]

Even though colleges first emerged in Paris, they did not go beyond being just houses of accommodation. On the other hand, English colleges with their more independent and democratic assets made a difference in their architectural expression, too. Actually, it was as early as the 13th century when Oxbridge colleges built their own buildings lavishly by the help of their financial independence. One of

---

[49] Coulson et al. (2011)
[50] Coulson et al. (2011, 3)
[51] Coulson et al. (2011, 4)
[52] Rüegg (1992, 60-61)

these colleges, Merton College, with the enclosed quadrangle it proposed *"has proved the enduring language of collegiate architecture at Oxford and Cambridge to the present day, and indeed yielded considerable worldwide influence".[53]* (See: Figure 3.1) The enclosed courtyard format implied an introverted understanding of college life in Oxbridge. It served a defensive role both keeping students inside and townspeople outside. Moreover, the colleges could close themselves off easily from the outside and obtain increased control over the students.[54]
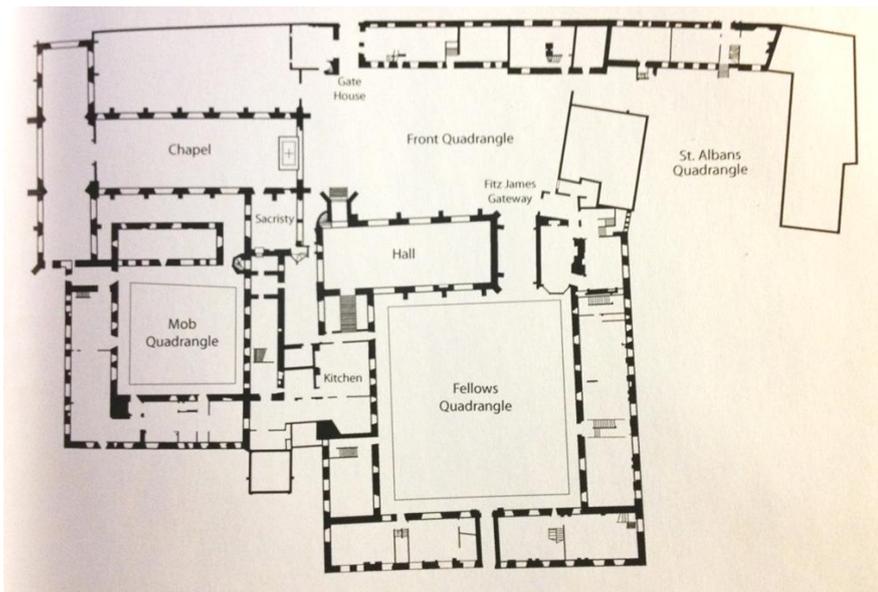
Figure 3.1: Plan of Merton College

Kortan also emphasizes the courtyard scheme of early colleges.[55] Furthermore, he points to the operational and spatial similarities between Oxbridge colleges and their fellow correspondents in the Islamic world, early Ottoman madrasas.[56] The Bayezid II Complex in Edirne which was built in the 15th century,[57] contains buildings of

---

[53] Coulson et al. (2011, 5)

[54] Turner (1984, 10)

[55] Kortan (1981)

[56] Although some scholars argue that the European universities were influenced by the Islamic madrasas of the Moorish Iberia, it is not possible to claim a strong structural relation between the two. For one thing, the "Universitas" organization was a unique innovation in higher education, and moreover the dominant source of literature was based on Greek and Roman manuscripts, if not canonical. For this reason, the comparison of university to madrasa is regarded solely spatial, rather than institutional or historical.

[57] Despite being built in 15th century, the spatial characteristics of Bayezid II Complex continues an architectural tradition of closed courtyard madrasas which dates back to the Seljukid period in Anatolia in 12th century.

different functions such as mosque, hospital, medical school, dining hall, kitchen, etc.[58] (See: Figure 3.2) Each of these functions find their architectural expressions in a series of closed courtyards coming together to form the whole complex. St. John's College in Cambridge (See: Figure 3.3) also exhibits a similar spatial organization with its consecutively located three quadrangles. Although it is groundless to claim that there is a direct relationship between the spatial setups of these buildings, it is still interesting how medieval traditions of building safeguarded and introverted structures survived in higher education institutions, even after Renaissance in distant parts of the world.

The quadrangle scheme of Oxbridge colleges dominated the campus design approaches until the second half of the 17th century when a young and pioneer architect Christopher Wren challenged it.[59] What Wren introduced to Oxbridge college buildings is defined by Coulson as follows:

> *"Wren inaugurated a new philosophy of collegiate architecture that rejected the medieval enclosed quadrangle in favour of openness, vistas with focal points, and hierarchical arrangements that characterized the Baroque style. College architecture had previously been dominated by ranges, uniform along their length with little or no central emphasis or axiality. A key development of Wren's Oxbridge designs were focal points positioned on strong axes."*[60]

Wren's implementation of directionality and central emphasis not only revolutionized the architectural vocabulary of English universities but also built the thinking behind America's first colleges.[61] After this point, the English settlers to North America took over the development of campus design, on the opposite side of the Atlantic.

---

[58] Kortan (1981)
[59] Coulson et al. (2011, 7)
[60] Coulson et al. (2011)
[61] Coulson et al. (2011, 8)
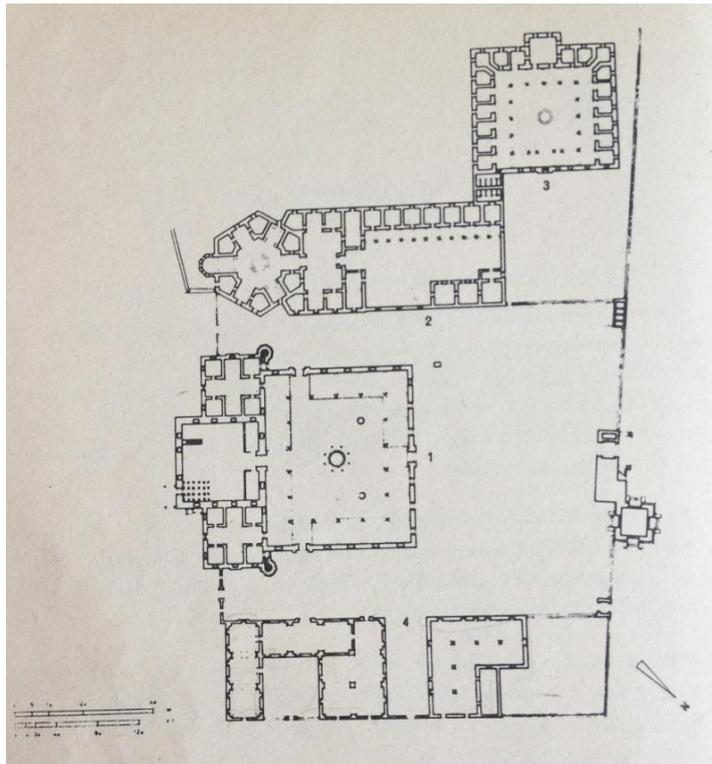
Figure 3.2: Plan of Bayezid II Complex 1. Mosque, 2. Hospital, 3. Medical School, 4. Dining Hall etc.
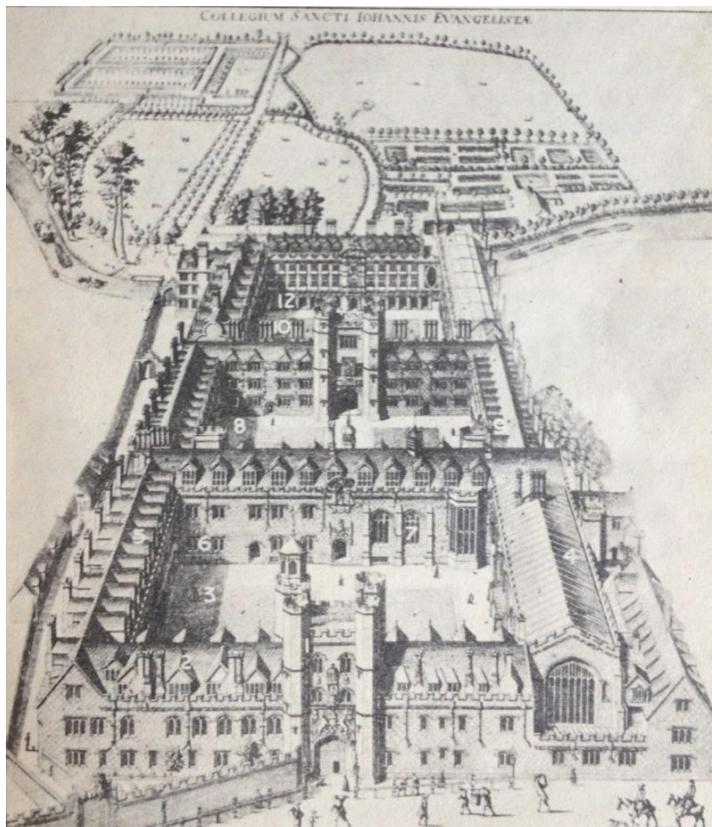
Figure 3.3: St. John's College, Cambridge, 1511

3.1.2. Colonial Colleges

The new settlers of North America had a great opportunity. They had the knowledge and experience of a thousand years of civilization with a blank canvas of land onto which they could build up their ideal world. In early 17th century a few hundreds of Oxbridge men settled in New England and only six years after the colonization of Massachusetts Bay, its General Court decided to found a college. The village of Newtowne, six kilometers from Boston was selected as its location and was soon renamed Cambridge. It was year 1636 when the first university institution emerged in America, which was soon to be named Harvard College. After that, the number of colonial colleges reached to 9, in less than a century and a half.

The list of oldest colonial colleges and dates of foundation is as follows:

Date of Foundation	University
1636	Harvard College
1693	The College of William & Mary
1701	Yale College
1746	College of New Jersey (Princeton University)
1754	King's College (Columbia University)
1755	College of Philadelphia (University of Pennsylvania)
1765	College of Rhode Island (Brown University)
1766	Queen's College (Rutgers, The State University of New Jersey)
1769	Dartmouth College

Table 3.1: The oldest colonial colleges and dates of foundation

Beginning with Harvard, American universities left behind the enclosed quadrangle scheme of English colleges. Instead, separate buildings located in vast areas open and accessible to the community was the first approach of the colonialists to campus design. As the university expanded, college buildings consisting of self sufficient functions were repeated around the designated area. While Turner (1984) proposed

that *"the sense of boundless space may have engendered a comparably expansive layout, or that the use of wood as a building material suggested separate buildings to minimize fire risk."*[62] Coulson et al. also argues that *"Ideologically, the new spatial layout may have been perceived by the Puritan colonialists as a means of establishing a distance from the catholic associations of the monastic-style linked complexes of England and from their impression of cloistered isolation."*[63] In either case, it is possible to express that the new layout of the colonial universities were by far open to the town and the community than their predecessors. Besides, the first attempts to campus design in America imply a sense of experimentation.
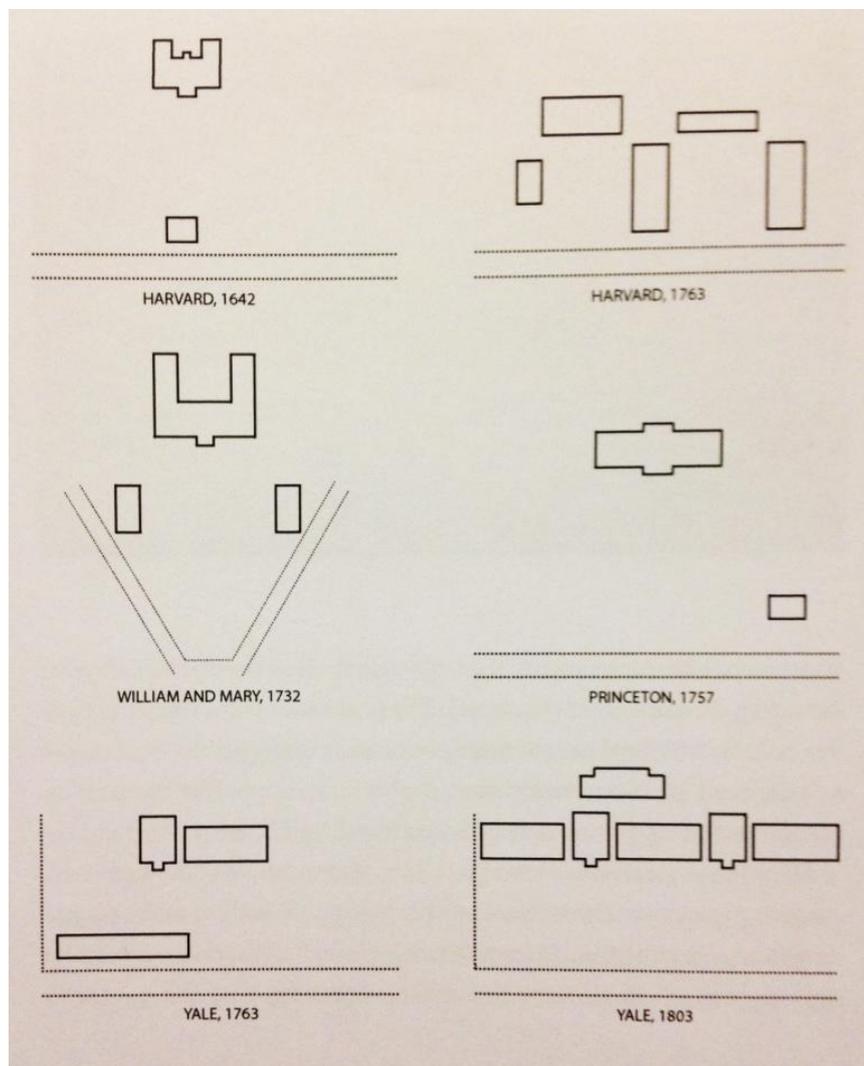
Figure 3.4: Early layouts of the colonial colleges

---

[62] Turner (1984)
[63] Coulson et al. (2011)

A decisive moment in American campus design history emerged in 1779 when governor of Virginia (later the 3rd president of the United States) Thomas Jefferson proposed a reformation of public education to the state legislation.[64] After spending many years to develop his ideas, Jefferson himself designed a new campus in Charlottesville, later to be called University of Virginia. Its foundation in 1819 marked an important benchmark for campus image in the United States. The layout was simple: a wide, plain, rectangular central space surrounded by a series of pavilions serving as classrooms and professors houses on the long sides of the rectangle. Whereas one of the short sides of the rectangle opened to the view of Virginian plantations, the other was terminated with a grandiose and symbolic building which served as the Rotunda Library.[65] (See: Figure 3.5) The open area defined by the surrounding buildings is described as follows:

> *"The central lawn was envisioned as a space for recreation, campus gossip and scholarly exchange, while the colonnaded pavilions provide numerous front doors, and thus numerous opportunities for social encounters."*[66]

There are two important innovations to be inferred from this description. First one is that in this layout the most important element of the campus rather than the buildings is the open space defined by the buildings. The central open space of the University of Virginia was named "the lawn" hence gaining an identity. (See: Figure 3.6) This spatial setup was praised widely and open spaces became a crucial element of latter campuses. The second inference is that for the first time in the history of campus design, the main concern of the designer is the social interaction and face to face encounter of the inhabitants. Jefferson valued the personal relationships of the students and the professors and the teaching based upon close personal contact. Indeed, it was himself who advocated that the model institution should be 'an academical village'.[67] This kind of approach to campus design is important because it is highly relevant to the subject of this thesis.

---

[64] Turner (1984, 76)
[65] Coulson et al. (2011, 10-11)
[66] Coulson et al. (2011, 11)
[67] Coulson et al. (2011, 11-12)
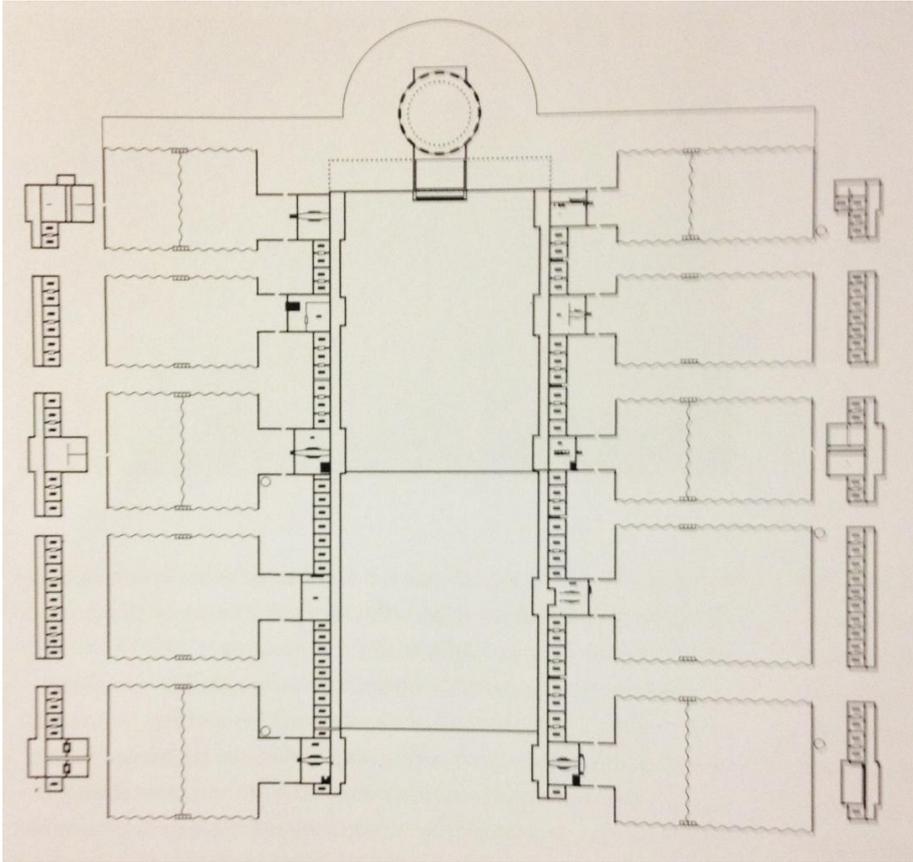
Figure 3.5: Plan of the University of Virginia

Figure 3.6: The lawn, University of Virginia

The spatial setup of the University of Virginia was also important in a sense that it proposed a layout based on a strong axial open space terminated at the ends with symbolic structures. This layout eventually became very popular in American planning practice, where it was most famously implemented in the planning of the new capital, Washington D.C. Although, the plan for the capital was produced by the French-American architect Pierre Charles L'Enfant, almost 20 years earlier than the foundation of the University of Virginia, it is understood that Thomas Jefferson was involved in the process.[68]

> *"Grown up in Paris, he (L'Enfant) used Versailles and other European cities of grand scale as a model for the axial layout of streets as well as for locating important buildings as focal points-de-vue in a complex spatial design of streets, public spaces, and parks. Thomas Jefferson, who kept a large library, sent him plans from Amsterdam, Bordeaux, Frankfurt, Karlsruhe, Lyon, Marseilles, Milan, Montpellier, Orleans, Paris, Strasbourg, and Turin."*[69]
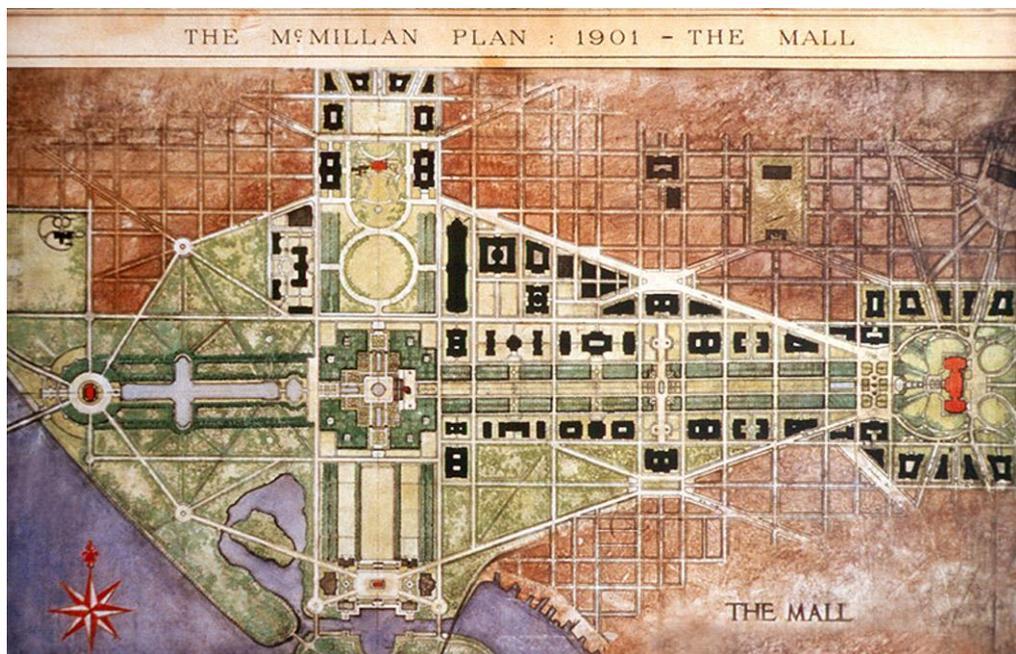
Figure 3.7: McMillan Plan of the National Mall, Washington D.C.

---

[68] By the year 1791 when L'Enfant Plan was developed, Jefferson was the Secretary of State and a close acquaintance of president George Washington. And before holding this office, he spent 4 years in Europe as United States Minister to France where he took the chance the examine closely the European planning and architectural practices.

[69] Orvell et al. (2009, 21-22)

The most notable resemblance of Washington D.C. to the University of Virginia is the "grand avenue" (later renamed "National Mall") implemented by L'Enfant which is a mile long open space surrounded by buildings and at the end of which stands the U.S. Capitol, expressing political power thorough spatial organization. (See: Figure 3.7) Thus, the city planning and campus design practices developed hand in hand. In other words, the institutional or the physical entity of the university was always shaped by the spirit of its time and location.

3.1.3. 19th Century America

The 19th century witnessed countless innovations in almost every field of science, literature, arts and culture. Meanwhile, campus design practice would do nothing but keep up with the giant leaps human civilization was taking. College concepts exhibited a more sophisticated and profound pattern than the preceding ages. In this century, approaches to campus design in America displayed a series of transformational phases, which will be roughly classified and reviewed under the topics; picturesque nature, the Beaux-Arts movement and the gothic revival.[70]

3.1.3.1. Picturesque Nature

Nature has always been an important asset in American campuses since the colonial period. It was already mentioned that the first college of the colonies was decided to be located a few kilometers outside Boston. Others followed in a short time outside other cities with the same idea of avoiding pernicious influences of the city. In 19th century this tendency gained momentum articulated by aesthetic considerations. Soon, nature became an important concern in the location and planning of American colleges. This concern could not exist in European universities since the Roman Catholic tradition of rigorous organization was still strong and resulting in urban textures, hence defining one of the notable differences between American and European campuses.[71]

---

[70] Coulson et al. (2011, 13)
[71] Turner (1984, 101)

The beauty found in the nature was popularly considered important for the wellbeing and moral character of the students. Frederick Law Olmsted, one of the most prominent figures in 19th century campus design, took the edifying capacity of nature as a central motivation. He praised nature as an antidote to city life and his campus ideal consisted of irregular and picturesque layout of buildings accessed by meandering walkways following the contour of the land.[72] (See Figure: 3.8) What relates Olmsted's ideas to this study is his position on the *"impact of physical setting upon behavior"*. In his recommendations for the Massachusetts Agricultural College he argued:

"You must embrace in your ground-plan arrangement for something more than oral instruction and practical demonstration in the science of agriculture… You must include arrangements designed to favourably affect the habits and inclinations of your students, and to qualify them for a wise and beneficent exercise of the rights and duties of citizens and of householders."[73]
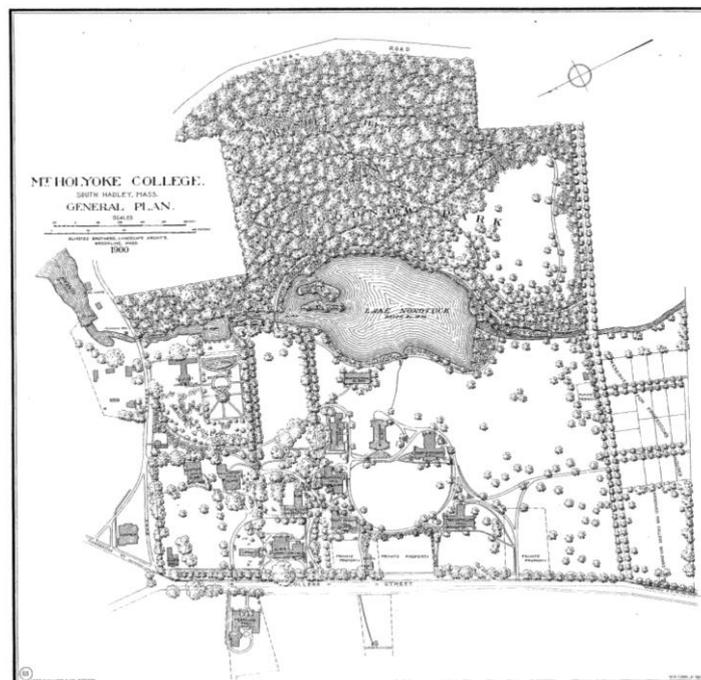
Figure 3.8: Olmsted's Plan for Mtholyoke College, South Hadley, Massachusetts

---

[72] Coulson et al. (2011, 13)
[73] Quoted in Coulson et al. (2011, 13)

Although Olmsted appears to be the one of the first architects to make use of the effect of environment on human behavior, his tools to do so was only limited to the use of nature. Often termed as the first landscape architect, having designed a large number of parks among campuses in the U.S. (including New York's famous Central Park) Olmsted's philosophy that established the importance of landscape as a component of campus design, would be a central influence far into the next century.

3.1.3.2. Beaux-Arts Movement

Quickly after Olmsted's picturesque nature movement, a new paradigm for campus design gained popularity among American architects. It was actually a rejection of nature and praise of urban pattern instead. The Beaux-Art style although taught in *École des Beaux-Arts* in Paris, heavily influenced the architecture in the United States in the period from 1880 to 1920. *"The approach prescribed formal axes on a grand scale lined with monumental buildings"* as Coulson describes it *"which complemented the ethos of the modern American university."*[74]

The new approach to campus design was strongly influenced by Jefferson's University of Virginia. What Beaux-Arts designers did was to take the strong axial layout of Jefferson and apply secondary axes and auxiliary buildings to it. Thus, they achieved a more complex yet orderly environment. This was substantially necessary because in the late 19th century American universities underwent a series of changes and required a larger number of buildings classroom, laboratories, libraries, gymnasiums, etc. Although Jefferson used to call his campus *'an academic village'* many universities now began to consider themselves as *'cities'*. This new case produced concepts like *'city of learning'* and *'collegiate city'* instead.[75]

Columbia University, designed by Charles McKim in 1984 (see: Figure 3.9) became an outstanding illustration of Beaux-Art campus. His design displayed an influential solution to the problem caused by thriving universities. Grand structures aligned on

---

[74] Coulson et al. (2011, 14)
[75] Turner (1984, 167)

an axial network of streets and a series of open public spaces hierarchically located around the campus achieved a unity and organizational clarity.[76]
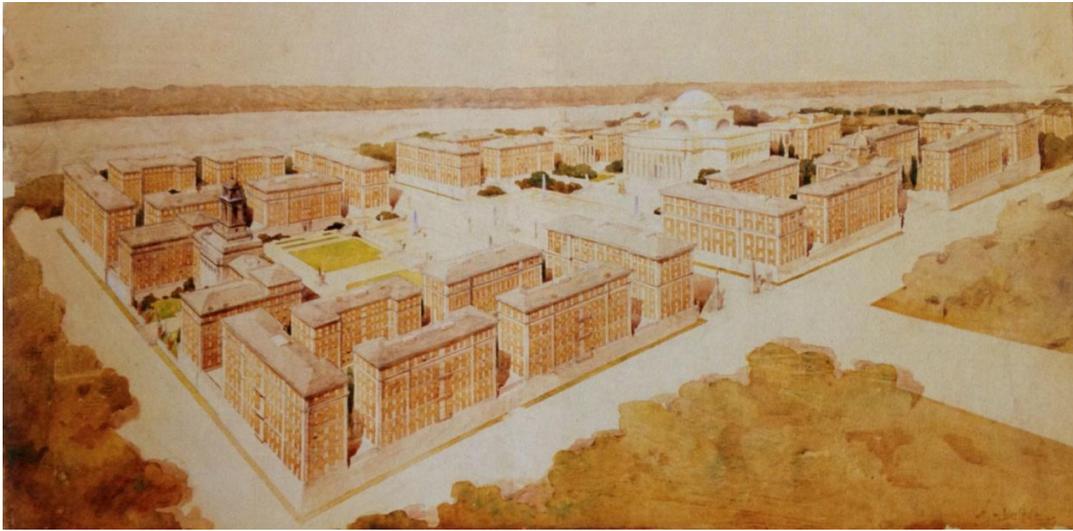
Figure 3.9: McKim's design for Columbia University in Upper Manhattan, New York

By this achievement the Beaux-Arts campus layout spread all around the United States, however the architectural style of the buildings varied according to topographies, structure and ideology of the schools:

> *"In describing the Beaux-Arts campus, a distinction should be made between the overall pattern of a plan and the architectural 'style' in which it was executed. The actual styles of the buildings in Beaux-Arts campuses varied widely, and included not only all the standard classical modes but medieval styles as well. This reflected the Beaux-Arts premise that the ground plan was supreme, and that once a good plan was drawn it could be executed almost any style, although the classical styles generally were preferred."*[77]

3.1.3.3. Meanwhile in Europe

Until the second half of the 19th century European universities operated in the old buildings remaining from 15th to 17th centuries. Besides, some of these buildings

---

[76] Coulson et al. (2011, 14)
[77] Turner (1984, 196)

were initially designed for other purposes then taken over by universities, such as private residences, mansions, convents, etc. These historic buildings often times received criticism from their unhappy inhabitants.[78] Similar to and even more than the American campuses, 19th century Europe also made use of eclectic mix of historical styles. It was not utilitarian or perfunctory, rather an expression of historical style giving meaning to educational institutions. Besides that, the main distinctive feature of the new European campus is defined as follows:

> *"The new university structures were not corralled behind walls as the medieval colleges of Oxbridge, or isolated amidst rolling countryside like many American colonial colleges, but rather were large, imposing city-center structures, loaded with symbolic capital."*[79]

The new university was now a single dominating building including all the functions (except accommodation, which continental universities did not provide anyway). In an increasingly secular world, university became the cathedral or temple of learning. Such that, even the stylistic expression of University College London, established in 1826, referred to a Greek revival.

Figure 3.10: Façade of University College London's main building

---

[78] Coulson et al. (2011, 17)
[79] Coulson et al. (2011, 17)

Other highly preferred styles of the era were neo-classical in continental Europe and the so-called *'Redbricks'* in England. (in regard to the common use of red brick and terracotta)[80] Furthermore, England also witnessed the revival of Gothic as well, as it was associated with the social and cultural ideals of the Middle Ages.

3.1.3.4. Gothic Revival

Gothic style in college architecture revived in the United States in 1830's. Harvard and Yale were the first colleges to erect buildings clearly inspired by the Oxbrigde architectural style of the middle ages. However, this first wave of gothic revival in America was merely stylistic. In other words, the gothic architectural style of the British origin was combined with the existing planning principles of both picturesque nature and Beaux-Arts of American college design.[81] Gore Hall in Harvard and Dwight Chapel in Yale both epitomized the approach to college building design with architectural details in Gothic style; though their relation with the neighboring buildings were far from medieval. Instead, the open layout of American plans consisting of detached buildings in vast spaces was sustained.[82]

The popularity of this new architectural style among American colleges was raised by a more complex concept than the needs of the users. College presidents swiftly embraced the new architectural fashion since it produced an immediate appearance of age and venerability in a relatively young nation. In 1896, Woodrow Wilson, president of Princeton University expressed this idea where he said: *"... by building our new buildings in the gothic style, we seem to have added to Princeton the age of Oxford and Cambridge."*[83] In 1856, when the buildings of Bethany College were demolished by a fire, the new buildings were designed in the gothic style to compensate for its lost buildings with an immediate image of agedness. In 1880, Harvard's president Lowell said: *"Not any of our older buildings is venerable or will ever become so. Time refuses to console them."*[84] and Andrew West, a dean from

---

[80] Coulson et al. (2011, 20)
[81] Coulson et al. (2011, 20)
[82] Coulson et al. (2011, 20)
[83] Kenney et al. (2005, 195)
[84] Turner (1984, 117)

Princeton defined the campus as: *"... quadrangles shadowing sunny lawns, towers and gateways opening into quiet retreats, ivy-grown walls looking on sheltered gardens...*"[85]

The "ivy-grown walls" phrase in the definition of an ideal campus, intrinsically reminds one of the Ivy League. The Ivy League is a group of colleges consisting of eight institutions[86] which are all located in the Northeastern United States. Seven of the eight schools in the Ivy League were founded in the colonial period, which makes them the oldest colleges in America, besides being viewed among the most prestigious and highest ranked universities worldwide. The word "ivy" originally comes from the ivy covered walls of old college buildings. (See: Figure 3.11) In the 19th century, many schools had a custom of ivy planting ceremony held by the students, either at the commencement of classes or graduation day. The ivy covered walls of older colleges were revered by the students just as much as the appreciation of the gothic style architecture of the simultaneous period.

Figure 3.11: Ivy covered walls of West College, Princeton University

---

[85] Duke (1996, 52)
[86] The eight institutions forming the Ivy League are; Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, the University of Pennsylvania and Yale University.

After the 1880's, gothic revival grew into a new phase, often referred to as "collegiate gothic". This time aside from formal and stylistic qualities, the American schools also adopted the institutional characteristics of Oxbridge colleges. Towards the beginning of the 20th century, the growing complexity of the educational institutions made educators to consider a resurgence of traditional collegiate values. Harvard, Princeton and Yale, among others, imitated Oxbridge's tutorial system to promote the sense of community and the intimate relationships between professors and student.[87] By then, many schools started applying the planning principles of British colleges, in addition to the stylistic image. University of Pennsylvania applied the enclosed quadrangle scheme in its new residences. Bryn Mawr College's new halls were erected as attached buildings forming a long winding border.[88] All in all, the American college design tradition of singular buildings located in vast areas, which conveyed a sense of openness to the community was replaced by the introverted, quadrangle inspired new approach, marking a symbolic border between the outside world and the privileged life of academia.[89] An example to this shift can be observed in a comparison of Columbia University (see: Figure 3.9) to the University of Chicago (see: Figure 3.12) which was designed based on a similar layout however with very limited and controlled access to the surrounding, making it much more isolated from outside world.
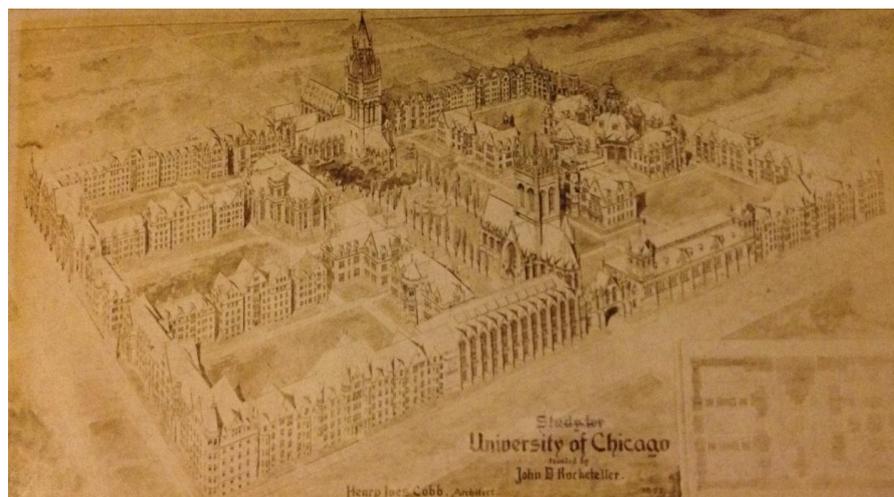
Figure 3.12: University of Chicago campus plan

---

[87] Coulson et al. (2011, 23)
[88] Coulson et al. (2011, 23)
[89] Turner (1984, 223-227)

"The vogue for collegiate gothic was propelled by ideological motivations." says Coulson and adds: *"Enclosed courtyards, quadrangles, and loggias, evocative of Oxbridge's cloistered spaces, appeared across the country as American colleges entered a new mood of introspection and elitism."*[90] Though, in its own period it was seen as a supreme reaction to the erosion of traditional values. Contemporaneous theorists such as Ralph Adams Cram defined the ideal collegiate gothic campus as: *"... a citadel of learning and culture (...) a walled city against materialism and all its works (...) half college and half monastery."*[91] Eventually, historicism dominated the approaches to university campus design until the discourse of architecture and planning was soon to be revolutionized by the practices of the 20th century.

3.1.4. 20th Century

The earliest signs of the forthcoming paradigm shift in architecture and city planning prospects showed up when Ebenezer Howard initiated his Garden City model in the United Kingdom or French scholar Tony Garnier introduced to the world his utopian design *Cité Industrielle*. Industrialization was the driving power behind the planning ideas of this century. The urban population in major cities was increasing rapidly where the rural population diminished. It would be helpful to discuss the general movements in city planning field in this period, in order to better understand related university campus design approaches.

While the use of steam power triggered the industrial revolution much earlier in the 1760's, the technological developments in the last quarter of the 19th century such as new steel production techniques, use of electricity, combustion engines, etc. changed the production patterns of the new world. The home-based production of the medieval period, evolved into a machine-based production. While the former was basically collection of raw material and hand manufacturing in houses, the latter necessitated large number of laborers working side by side in factories.[92] The change of production patterns promoted urbanization by gathering the needed number of

---

[90] Coulson et al. (2011)
[91] Cram (1909, 24)
[92] Sert (1942, 134)

44

people together in the cities, who used to live in smaller groups before in rural areas.[93]

Garnier's reaction to this rapidly urbanizing "Industrial City" was a rational approach to separate the functions and locate them without interfering with each other.[94] The zoning of the functions idea was later going to be appropriated and propounded as a universal principle in city planning by the CIAM meetings which was founded in 1928.

Le Corbusier, also indicated his interest in the new values created by the industrial revolution by saying that *"A house is a machine for living"*. He published many of his ideas in *"A Contemporary City for Three Million Inhabitants"* (1922) or *"The Radiant City"* (1930) which he was later going to implement in *"The Athens Charter"* published by CIAM in 1933.[95]

3.1.4.1. CIAM

CIAM, *Congrès International d'Architecture Moderne* was an international organization of architects and city planners active between 1928 and 1956. Between these years CIAM held 10 meetings in different cities of Europe. In these meetings the problems of the modern cities were discussed and design principles for modern architecture and city planning were proposed. In the fourth meeting of CIAM held in Athens, the Congress came up with a 95 article manifestation putting together the general ideas for better cities, which was later published as The Athens Charter.[96]

As mentioned before, major cities were urbanizing rapidly and the urban population grew. Prior discussion in CIAM meetings was the housing problem. According to Mumford: *"From its founding, CIAM was divided between German speaking and Bauhaus centered radical architects (…) and the more Paris oriented adherents of*

---

[93] Mumford (1961, 332)
[94] Kortan (1981, 12)
[95] Kortan (1981, 12-13)
[96] Le Charte d'Athènes (1943)

Le Corbusier."[97] The German side was keen on creating an architectural style originated from the Bauhaus movement, by removing the unnecessary ornamentations and simplifying the architectural expression.[98] Some of the architects who moved to the United States during World War II popularized the principles of gestalt theory of visual perception, which claims that the inference of a formal composition relies on certain principles.[99] The characteristics of the modern architectural style raised on this basis.

On the other hand, Le Corbusier was professing his ideas in which he defines the four functions forming the city as; habitation, leisure, work and traffic.[100] These functions would be separated from each other by zoning and organized by means of geometrical order. He suggested that high rise buildings should be erected in vast open green areas, accessed by vehicular traffic which is separated from pedestrian activity.[101] This purely functional approach was aiming to provide healthy living conditions for the inhabitants and machine like operation of the city by means of simple geometry.
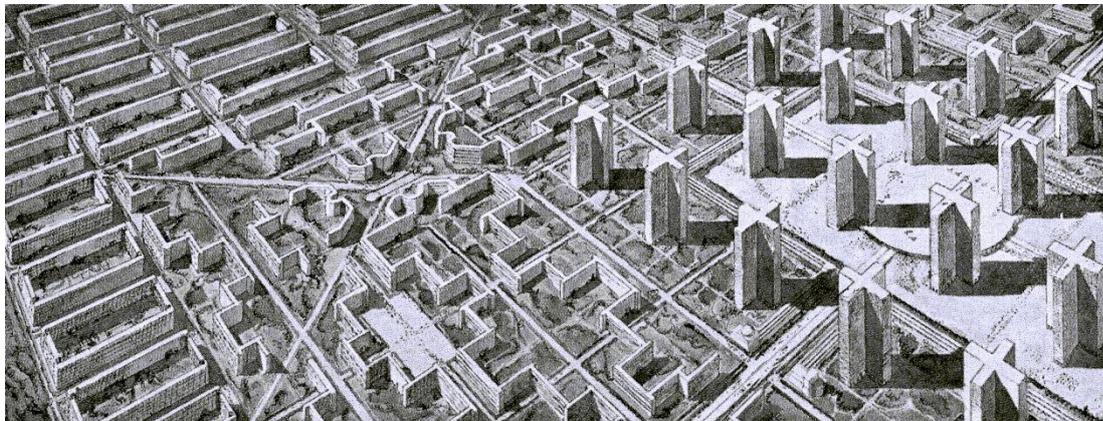
Figure 3.13: Le Corbusier's "Contemporary City" proposal

Josep Lluís Sert was also for this idea as a solution to what he described as an urban crisis which was mainly caused by overcrowding in city centers. He stated that: *"The*

---

[97] Mumford (2009, 2)
[98] Günay (2012b, 55)
[99] Mumford (2009, 23)
[100] Athens Charter (1973)
[101] Le Corbusier (1929)

Industrial Revolution has subjected cities to the influences of the most varied innovations. Among these are: mechanized production, mechanized transportation, new building techniques, new ideas on health and recreation and vulnerability from the air."[102] Peter Hall described the motive of this idea as: *"... not only to produce an alternative built form, but also an alternative society."*[103]

However, the social aspects of CIAM principles did not work out as planned and they have been criticized since 1950's on the grounds of lacking to provide for peoples social relations.[104] After ten years of compulsory delay due to World War II, seventh meeting of CIAM was held in 1947 in Bridgewater. The discussion was naturally on reconstruction of the cities. Soon after, the post war CIAM turned out to be a criticism of the pre war congresses. While groups of younger generation of architects and city planners were emerging, the philosophy of the older generation was also subject to changes.[105] In the ninth meeting of CIAM in 1953 young generation declared the principles of the Athens Charter obsolete. Also same meeting witnessed the retirement announcement of many of the founding members from the congress, including Le Corbusier, Gropius, Eesteren, Giedion and Sert.[106] These events led to the tenth and the last meeting of CIAM, which marked the appearance of Team 10.

3.1.4.2. Team 10

The group of architects, who as a part of CIAM rejected the pre war urban design principles acknowledged in the Athens Charter, is referred to as Team 10. Among the members of these architects and city planners, Alison and Peter Smithson from England, Aldo van Eyck and Jacob B. Bakema from the Netherlands, G. Candilis, A. Josic, S. Woods from France, Giancarlo de Carlo from Italy, J. A. Coderch from Spain and Jerzy Soltan from the United States can be regarded.[107]

---

[102] Sert (1942, 2)
[103] Hall (1988)
[104] Günay (2012a, 17-18)
[105] Günay (1988, 30)
[106] Günay (1988, 30)
[107] Kortan (1981, 15)

Team 10 introduced to the world of architecture and city planning new terminology, like "association" and "identity" to replace the purely functional approach of CIAM asserted in the pre war meetings.[108] While CIAM principles were prescribed to be valid for all the cities of the world, in other words "universal"; Team 10 manifested that: *"... to comprehend the pattern of human associations we must consider every community in its particular environment."* which signified a more localized outlook.[109] Soon enough, in the vision of 20th century architecture and city planning, clustered buildings implying a sense of social neighborhood replaced the huge Corbusian super blocks. Alison and Peter Smithson defined the street as: *"... not only a means of access..."* as CIAM would take it into account *"... but also an arena for social expression."[110]* They took further the clustering idea and came up with a new term: mat-buildings. Alison Smithson herself defines mat-building as follows:

> *"Mat-building can be said to epitomize the anonymous collective: where the functions come to enrich the fabric, and the individual gains new freedoms of action through a new and shuffled order, based on interconnection, close-knit patterns of association, and possibilities for growth, diminution, and change."[111]*

In this definition some words immediately call one's attention in regard to its stance against CIAM principles, such as "collective, individual, interconnection, association" in social aspect and "growth, diminution and change" in formal.

Baykan Günay points out to another outlook towards the CIAM – Team 10 comparison. This outlook is based on Françoise Choay's classification of the models of urbanization, developed in the industrial society, under the terms "progressist" and "culturalist". According to her:

---

[108] Günay (1988, 30)
[109] Quoted in Günay (1988, 30)
[110] Quoted in Günay (1988, 36)
[111] Smithson (1974, 573)

> *"One of these models looking to the future and inspired by a vision of social progress we shall call progressist. The other nostalgic in outlook, is inspired by the vision of a cultural community and may therefore be called culturalist."*[112]

Günay interpereted CIAM to be based on progressist models of urban design and Team 10 on culturalist models. He said:

> *"The two models have developed in a dialectical sense, with give and takes, one following the other or existing at the same time. The basis of the CIAM and its follower Team 10 movement will be better apprehended when analyzed within this context."*[113]

All in all, the general ideological tendencies in the field of architecture and urban design were strongly guided by dialectical outlooks of CIAM and Team 10 for a long time in the 20th century. The social developments also led this duality since, the pre war and post war outcomes of CIAM meetings indicate that the progressist models develop in the years of depression while culturalist models take over in the climate of stability.[114]

3.1.4.3. Campus in the 20th Century

The universities all around the world witnessed a period of change in the 20th century. Especially, after the World War II, the number of people to receive higher education considerably increased. In the United States, The Servicemen's Readjustment Act of 1944, known informally as the G.I. Bill, provided roughly 2.2 million war veterans benefits in college applications.[115] Meanwhile in Europe, the total population of university students in Germany, France and United Kingdom reached millions while it was predicted to be at most 150.000 before the war.[116] In

---

[112] Choay (1969, 31)
[113] Günay (1988, 24)
[114] Günay (1988, 32-33)
[115] Coulson et al. (2011, 24)
[116] Coulson et al. (2011, 24)

Britain, the number of universities multiplied from 22 to 46 in the 1960's and the student population increased accordingly.[117] All these quantitative information points out to two results: one; target audience of university education among the population broadened and two; the need for new buildings and campuses emerged.[118]

In the United States, the popularity of medieval architectural styles which supposedly created instant historic connotations, yielded to modern architecture with its crisp, muted forms, robust use of concrete, steel and glass, and a strive for change. In the 1930's, the so-called "International Style" gained popularity in worldwide architecture. However, like other previous movements, modernism also initially showed up as a "style". Individual buildings were designed by different architects in the traditional layouts of existing campuses.[119]
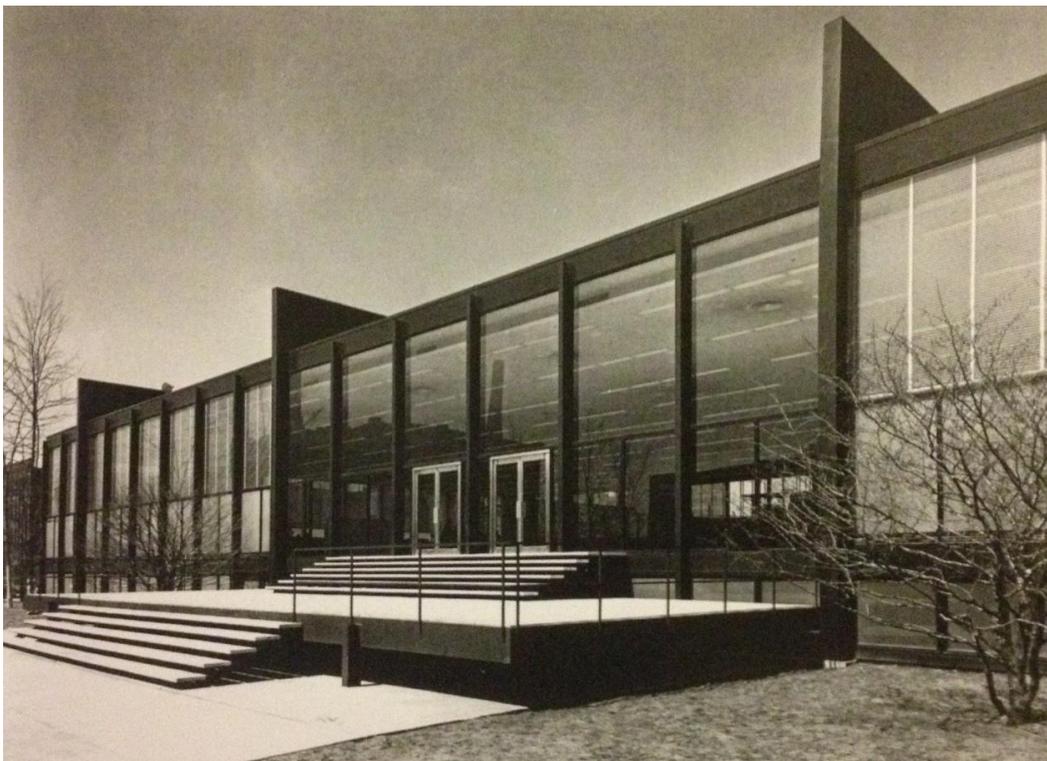
Figure 3.14: S.R. Crown Hall, Illinois Institute of Technology designed by Mies van der Rohe

---

[117] Coulson et al. (2011, 29)

[118] Note that Turkey has also witnessed such periods of bursts of new universities. According to Kavili Arap (2010) 34 new universities were founded between 1982 and 1994 and 41 new universities were founded between 2006 and 2008 by the Turkish Government. However, same research claims that the reasons behind the foundation of said institutions are merely economical and political, which will be discussed later.

[119] Coulson et al. (2011, 25)

In 1950's after World War II, many institutions became, in their scale and complexity, mini cities. Le Corbusier defined the American university as *"a world in itself."[120]* 20th century made it more evident that, self sustained campuses originate in British and American traditions, while in continental Europe, universities kept their imposing existence in the historic city centers. Moreover, they did not provide accommodation or a collegiate environment like the Anglo-American institutions. Ultimately, American campuses expanded and unlike before, the concerns of urban design, such as movement, circulation, etc. became more essential than ever.

When campus design became an issue of planning, the aforementioned models of CIAM and Team 10 came to aid. According to Enis Kortan, the new campuses designed in a wide span of 20th century, can be categorized in two groups, according to whether they are based on CIAM principles or those of Team 10.[121] He suggests some examples of universities designed according to CIAM principles as follows:

Name of University	Designed by	Year
University City of Brazil	Le Corbusier	1936
Illinois Institute of Technology	Mies van der Rohe	1939
University City of Caracas	Carlos Raúl Villanueva	1942
Otaniemi Technical University	Alvar Aalto	1949
University City, Mexico	Mario Pani, Enrique del Moral	1951
University City, Rio de Janeiro	J. Machado Moreira, A. H. Toledo	1945
Ruhr University Bochum	Helmut Hentrich, Hubert Petschnigg	1962
University of Surrey	George Grenfell-Baines	1966
University of Constantine	Oscar Niemeyer	1968
METU Gaziantep Campus	Enis Kortan	1973
University of Oran	Kenzo Tange & Urtec	1976

Table 3.2: Examples of universities designed according to CIAM principles

---

[120] Coulson et al. (2011, 25)
[121] Kortan (1981)

On the other hand, examples of universities designed according to Team 10 principles are as follows:

Name of University	Designed by	Year
University of East Anglia	Denys Lasdun	1962
University of Bath	Robert Matthew, Johnson Marshall	1962
University College Dublin	Giancarlo de Carlo	1963
Free University of Berlin	Georges Candilis, Alexis Josic, Shadrach Woods	1963
Simon Frazer University	Arthur Erickson, Geoffrey Massey	1963
Loughborough University	Arup Associates	1964
Southern Illinois University	Gunnar Birkerts	1965
Bielefeld University	Klaus Köpke, Peter Kulka, Katte Töpper, Wolf Siepmann	1970
University of Lethbridge	Arthur Erickson, Geoffrey Massey	1976

Table 3.3: Examples of universities designed according to Team 10 principles

Each of the designs listed in these tables are cases in point, in terms of displaying the basic principles of their corresponding movements. For one reason, university campuses, having evolved into a smaller model of cities, were great fields of experimenting and implementation for the new ideas of the upcoming architects. They found the chance to design from scratch, an urban settlement containing all the main functions of a modern city. Le Corbusier's unrealized design for University City of Brazil from 1936 is a fine example for this. He regarded the campus to be composed of for functions which are;

1. Education activities mainly consisting of faculty buildings, which correspond to "work";
2. Student dormitories and professors' lodgings, which correspond to "habitation";
3. Sports venues, cafeteria and cultural activities, which correspond to "leisure";

4. Circulation system consisting of pedestrian ways, squares and vehicular roads, which corresponds to "traffic", in the zoning principles defined by CIAM in the Athens Charter.[122]

Other principles of the Athens Charter were also implemented in this design. Faculties were proposed to be simple high rise buildings standing in vast green spaces. The whole campus is pedestrian accessible, organized in a radius of 500 meters. Vehicular roads are elevated and completely separated from the pedestrian activity. Buildings are also raised on "pilotis",[123] leaving all of the ground to pedestrians.[124] All these features exhibit a notion of Le Corbusier's ideal city acknowledged by pre war CIAM.
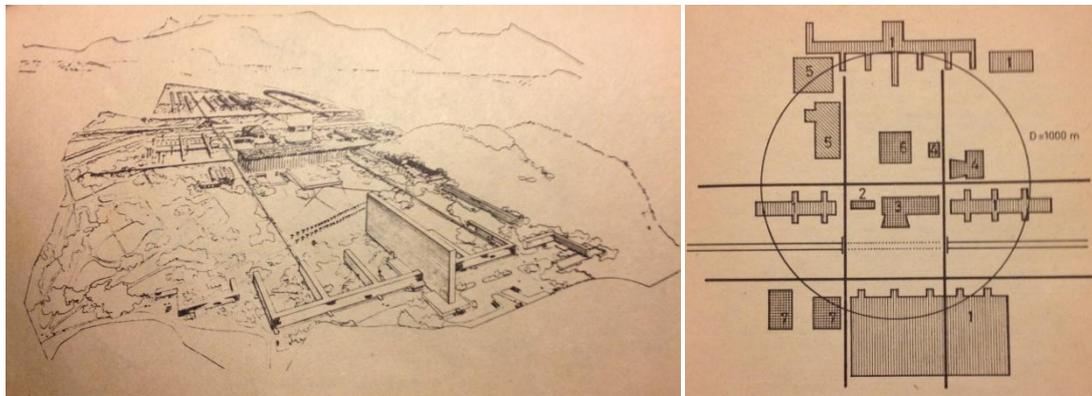
Figure 3.15: University City of Brazil designed by Le Corbusier: 1- Education, 2- Library, 3- Auditorium, 4- Theatre, 5- Housing, 6- Museum, 7- Sports

Oscar Niemeyer, when he designed the University of Constantine, took the functionalist approach as far as he could. He put together all 9 faculties in 2 super blocks, one including classrooms and the other laboratories, each extend along approximately 300 meters. A high rise building was erected for administration offices, and a few smaller buildings separately for cafeteria, library, auditorium, etc. all of which are located around a large open area.[125] (See: Figure 3.16) On the other

---

[122] Kortan (1981, 39)
[123] Pilotis are ground level supporting columns, Le Corbusier used in a variety of forms to detach his buildings from the ground.
[124] Kortan (1981, 39-40)
[125] Kortan (1981, 82-86)

hand, Ruhr University Bochum displayed another approach where 13 identical blocks were arrayed alongside a linear axis for the faculties. The center of the axis was intercepted by another axis of common use buildings which leads to the housing area.[126] (See: Figure 3.17) However, the housing area is separated from the main campus, complying with the continental European traditions of campus design. The connection to the main campus in this case is provided with a pedestrian bridge over the vehicular road.

Figure 3.16: University of Constantine designed by Oscar Niemeyer
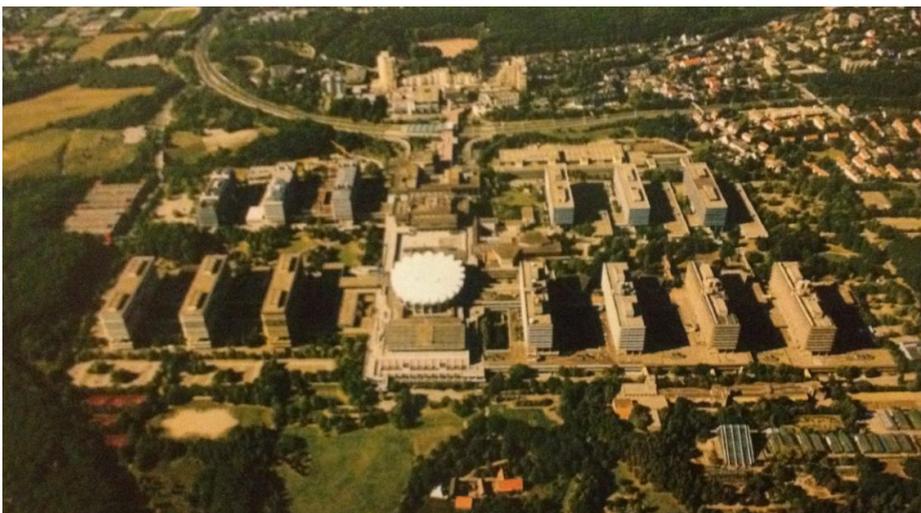
Figure 3.17: Ruhr University Bochum

---

[126] Kortan (1981, 72-77)

By the end of the 1950's, emerging ideas of Team 10 transcended the field of city planning, as well as university campus design approaches. The general tendency among this group of architects was to create compact and more articulated textures, often regarded as mat-buildings or groundscrapers.

In University College Dublin, Giancarlo De Carlo rejected CIAM principles and practiced the exact opposite. Instead of separating the components of the campus according to functions, De Carlo implemented a central spine on which different functions were attached as a gradient of public-private hierarchy. (See: Figure 3.18) Kortan explains this approach as follows:

> *"(...) Thus, on the spine people easily find occasions of communication in a immensely compacted, safe and comfortable manner, and there exist elaborate social relations which would be desired in an urban center. As a necessity of the urban micro-system desired to be created in the campus, it is foreseen that a 24 hour vitality and liveliness would be established on this main pedestrian axis."*[127]
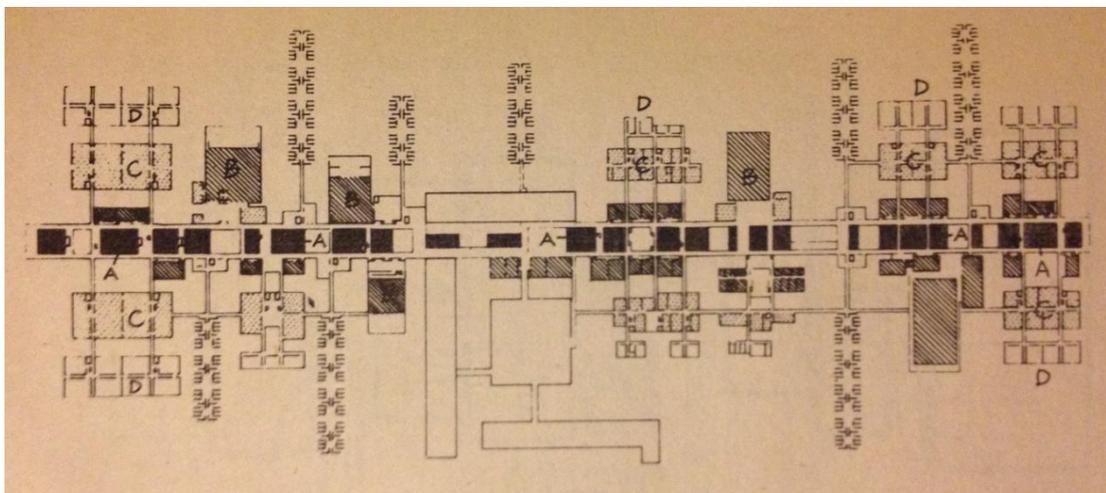
Figure 3.18: University College Dublin, designed by Giancarlo de Carlo. The shading from darker to lighter represents the degree of publicity-privacy.

---

[127] Kortan (1981, 116)

Another example of Team 10 principles in campus design was the approach of Candilis, Woods and Josic to Free University of Berlin. They came up with a single system of buildings implying a sense of association, a model referred to as "groundscraper". Against CIAM principles of functionalism, the designers of this campus considered it as a place and medium and they argued that, the functions of it cannot be foreseen. They claimed that the main duty of campus is to provide the communication between people from different disciplines, in order to improve users' field of knowledge.[128]
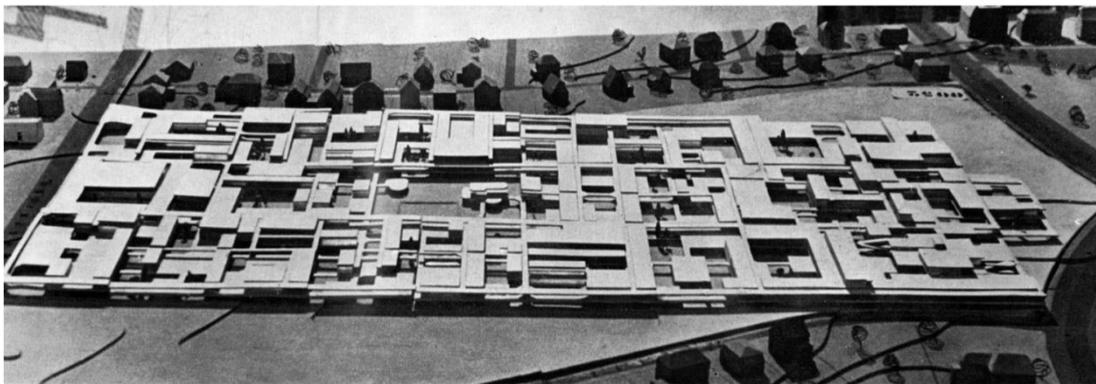
Figure 3.19: Model of the original design for the Free University of Berlin

Figure 3.20: Aerial View, Free University Berlin

---

[128] Chermayeff et al. (1971, 233)

The design for Free University of Berlin consists of a huge structure, based on a grid plan of courtyards and an average of 2-3 storied closed spaces. Any kind of functions are located in an intertwining manner in this "mat-structure" and dissolved in the anonymity of the texture.[129]

In regard to given examples and other productions of contemporaneous architects and city planners, it is possible to say that both CIAM and Team 10 pioneers valued the importance of creating social interaction spaces. However, it was the physical characteristics of these spaces that differed in both groups. It is hard to tell whether one is better than the other but both approaches are better than none.

3.1.4.4. Towards the End of the Century

By the beginning of 1980's, the modernism ruffle in architecture ebbed away. For the following two decades, the winds have changed again towards the past and historicist roots were firmly embraced. New structures were vested with historical stylistic forms which came out to be known as 'postmodernism'.[130] The modernist architectural language was criticized to be stark and lacking in contextual resonance. Robert Venturi, is one of the most influential figures of the new movement. His Lewis Thomas Laboratory design for Princeton University bore a resemblance to the collegiate gothic that characterizes much of the campus. Also, he rejected the modernist rationality by using non-structural or non-essential decorative elements in the façade.[131] (See: Figure 3.21)

The rise of the postmodernism led to the appearance of 'star architects'. The practice of new expressional compositions combined with the new building materials, grew into a competition of imposing buildings of now 'celebrity' architects. For instance, Frank Gehry's laboratory complex and Steven Holl's Simmons Hall (See: Figure 3.22) opened in MIT at the turn of the century. However, this new movement remained merely stylistic and had no effect on planning practice.

---

[129] Kortan (1981, 125)
[130] McCormick et al. (2011, 32)
[131] McCormick et al. (2011, 32-33)
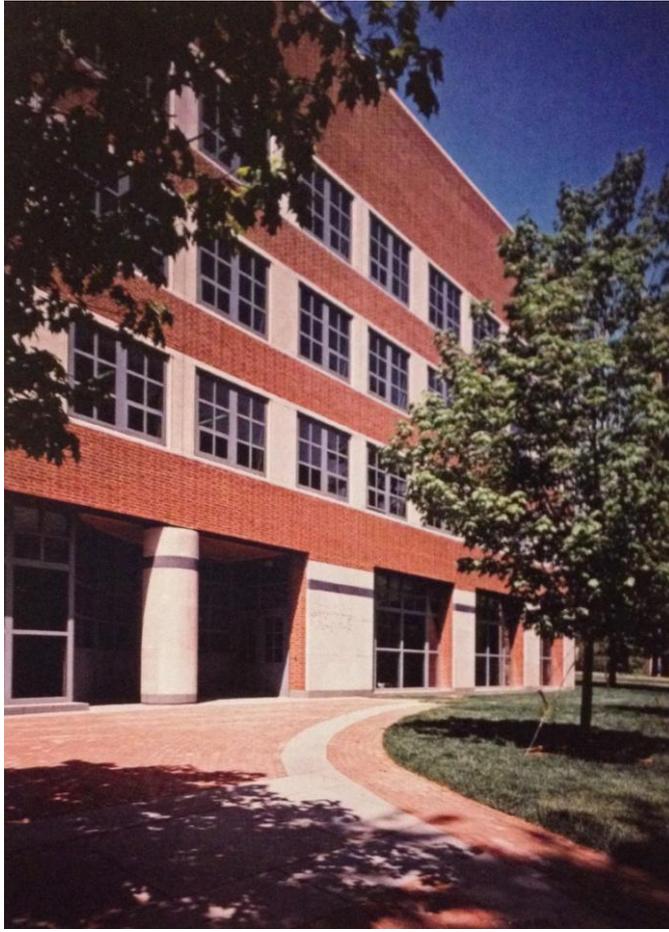
Figure 3.21: Lewis Thomas Laboratory, Princeton University

Figure 3.22: Simmons Hall, MIT

3.2. The Contemporary Campus

Almost thousand years of developments have led the universities into the 21st century. Today's university campus while having some features brought by the improvements of the modern ages, also withholds either physical or symbolic elements of its roots. Before concluding this chapter about universities, the last topic of discussion will be on some of the concepts about the contemporary university campus.

3.2.1. Functions on the Campus

The medieval university started operating with a simple chamber in which a master would lecture a small group of students. In today's universities education is still obviously the main function. However, other activities have emerged within the campus equally substantial. The main functions of contemporary campus may be grouped as:

1. Education
2. Accommodation
3. Sports, culture and leisure activities
4. Circulation

This classification is based on CIAM's principles of functionalism, yet in detail they get more complicated and differ from campus to campus. For example, education usually includes classrooms and offices in common but for different purposes other spaces may be added. Studios, workshops and ateliers for art and design related schools, laboratories for engineering and applied sciences may be considered other basic functions. Specific needs may be applicable; medical schools are usually considered together with an operating hospital for practical education. An indispensable asset on the campus is the library, almost needed commonly for all educative purposes.

The need for related activities is usually determined by the curriculum while the organization and design of said activities vary immensely. The CIAM and Team 10 approach to this problem was already mentioned. Today the interdisciplinary education or objectives of improving overall knowledge, especially in undergraduate education, led to more flexible design of curricula.[132] As a reaction to this situation, campus design also gained flexibility. This can be exemplified in two results; some campuses provide a number of common spaces for interdisciplinary use while others are organized in a totalitarian manner, where every space is accessible by all of the students, instead of grouping according to departments.

Accommodation is also one of the oldest functions included in the university campus. Traditionally, continental European universities did not provide housing in the middle ages, but collegiate system of Britain, later adapted by the United States, was based on the communal living of students. In many colleges, besides education itself, campus life is regarded as an educational experience almost as important. Therefore, many universities have halls and dormitories included in their campuses. However, depending on the location of the campus, students may also consider affordable housing options in the surrounding neighborhoods, if available.

Halls and dormitories in a campus, spontaneously create a social liveliness extended beyond active teaching hours. Some universities also provide lodging for professors in the campus. However, design approach to such areas vary in two ways, according to whether they will be isolated from the rest preventing possible interaction or associated in the opposite manner. Albeit many benefits risen in theory, the practice is usually in favor of the former.

Many universities also have venues for sports, culture and leisure activities. The type, number and location of these activities vary greatly according to the policies of the universities. In the United States, college athletics are very popular and many institutions offer scholarships for student-athletes in recognition of their athletic potential.

---

[132] Tekeli (2003, 128)

The coming together of a large number of students for university education, naturally create commercial activity. Some campuses also include at least the basic sorts of these, such as restaurants, grocery stores, stationary shops, banks, pharmacies, etc. In another scenario, these activities show up in the surrounding neighborhoods, if the campus is located in a relevant manner. In fact, site selection decisions of many universities in Turkey have been given according to economical development policies, both in local and regional scales.[133]

Circulation has been mentioned as the last but not least function to exist in a campus. Technically, it is obvious that transportation to the campus and inside the campus has to be provided for the basic daily operation. But there is more to circulation than access to certain buildings. It was already mentioned that the size of the campus has grown larger throughout the 20th century, in relation with the changing needs and increasing number of students. In 1957, when California State University decided to built three new campuses, each for approximately 27.000 student, president of the state university system Clark Kerr stated his ideas on the danger of losing the atmosphere of 'collegiate intimacy' as:

> *"The big campus lacks the inestimable virtue which the small liberal arts college counted as its hallmark: the emphasis on the individual which small classes, a residential environment and a strong sense of relationship to others and the campus can and do give."*[134]

It is true that the long praised intimacy of medieval colleges have been overwhelmed by the machinelike operation of the industrial age, but the social interactions of university members keep its importance maybe more than ever. Hence, the importance of circulation is more than functional; the circulation area would also act as the place of social interaction. Eventually, to provide face to face interaction, concepts like 'perceivable environment' and 'pedestrian campus' gains utmost importance.

---

[133] Kavili Arap (2010, 10-14)
[134] Quoted in Coulson et al. (2011, 28)

3.2.2. Pedestrian Campus

The most notable feature of the ancient and medieval cities is their properly constructed walls. The city walls define the limits of the city. The urban texture is a compact organization of the necessary building stock. As the population of the city increases, the density and compactness reach to an upper limit. Yet, ancient and medieval cities have never exceeded a certain amount of footage. For instance, Athens in 490 BC was located inside a circle with a diameter of approximately 900 meters. Medieval Rome covers a circular area centered around Pantheon and with a diameter of 1000 meters. The Ringstrasse in modern day Wien where stood the city walls until 19th century, has a diameter of 1300 to 1500 meters. In Priene, a much praised Anatolian city for its urban quality, the longest distance is 700 meters.[135] The predominant element in determining the dimensions of ancient and medieval cities was obviously defensive strategies. However, it should not be disregarded that the circulation in pre-industrial cities was almost exclusively on foot and the reasonable distances for pedestrian activity also played an important role in the operation of the city as a self sufficient entity.

As cities grew larger in the industrial period, means of circulation also evolved and vehicular transportation was introduced. However, by the end of 19th century, rapid urbanization in industrial cities also produced new problems. Residential areas became excessively dense and public places declined. Architects and city planners tried to produce solutions by the turn of the century, but it was not until 1929 when Clarence A. Perry introduced an extensive definition of "neighborhood unit" concept.[136]

It is notable that, the pre-industrial city and the neighborhood unit of an industrial city share almost the same scale. The area covered and the overall functioning of the both, resemble each other. In fact, Baykan Günay used this significance as a tool to introduce the city and regional planning students of the first year studio to the

---

[135] Kortan (1981, 23)
[136] Barlas (2012, 281)

concept of neighborhood unit. What he did was basically to specify an assignment to design an ancient site upon a scenario.[137] He stated his intension as:

> *"The significance of such sites is that they have died away, leaving back their precious ruins of high civilizations. The remains are there without life. This abstract setting provokes the students to imagine, to create and make abstractions."*[138]

The ancient city without any present built environment acts as a reference scale. The dimensions of an ancient city or a neighborhood unit of a contemporary city, make an impression that there is an optimal size for an environment which provides proper communal activity. There is no reason that the same reference could not be applied to university campus, since all of these concepts embody a similar sense of integrity. Therefore, it could be useful to take a look at the principles of neighborhood unit design developed in the 20th century.

A neighborhood unit is an important constituent of space organization and according to Perry, defined by six principles:

1. Major traffic routes should not run through residential areas but be located at their boundaries.
2. Interior streets should be designed to provide quiet, safe and low volume traffic.
3. The population of the neighborhood should be enough to support an elementary school.
4. The focal area should be the elementary school along with common green and other services.
5. The radius of the neighborhood should be at most one quarter mile (400 meters) appropriate for a school child to walk.
6. Commercial uses should be located at the edge preferable at major intersections.[139]

---

[137] Günay (2007, 101)
[138] Günay (2007, 101)
[139] Barlas (2012, 281-282)
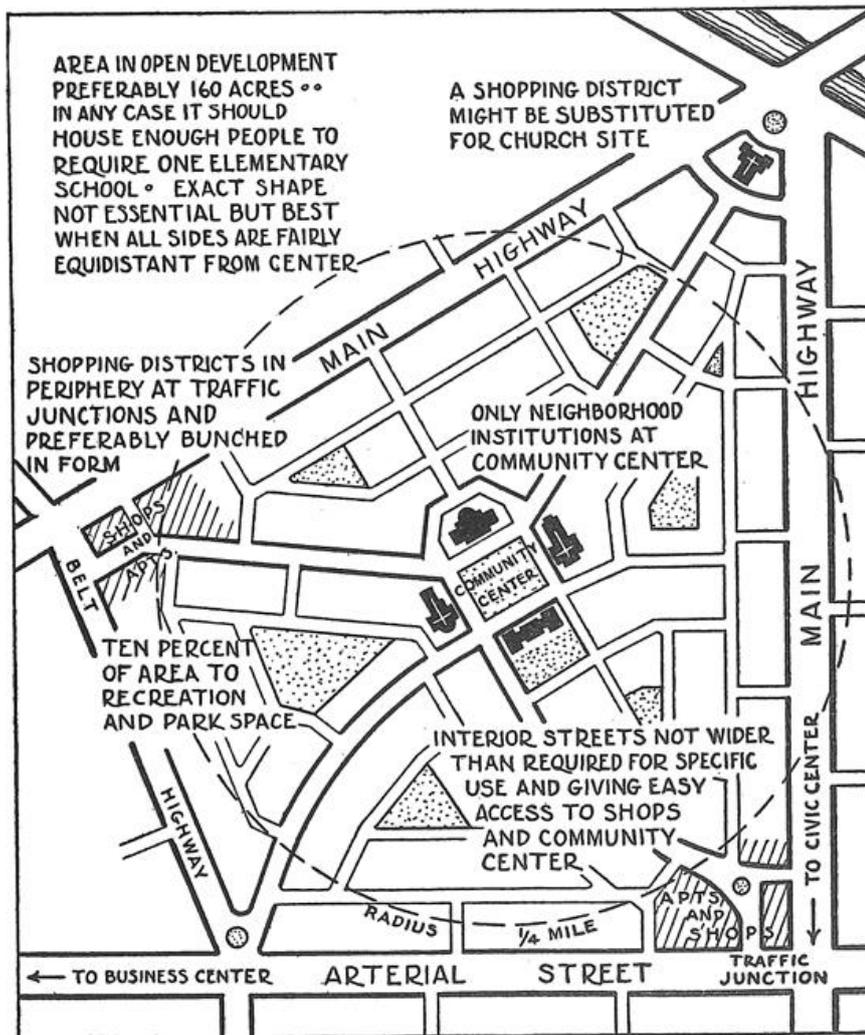
Figure 3.23: Clarence Perry's diagram for neighborhood unit

A simple neighborhood unit can be related to a university campus in many ways, two of which are: they both sustain a certain degree of self sufficiency and more importantly, a sense of community which is even more essential for the university. An adaptation of Perry's principles could be suggested as follows: The peripheral location of vehicular traffic and pedestrian friendly organization of campus area is applicable. Population of a university campus is a larger discussion. In this case, the designation of focal area for common uses and commerce in the periphery, making possible a connected growth in the surrounding neighborhood may also be considered. Finally, the pedestrian oriented circulation approach is also essential but the radius should be set larger than what Perry suggested, since it was meant for elementary school children.

All these ideas lead to one concept: *"pedestrian campus".* There are two aspects of this concept. First of all, the perception of human is physical and psychological as much as it is visual. Pedestrian circulation enables human to better recognize and appropriate its environment. Secondly, he/she has the opportunity to meet and interact with other people and objects on foot.[140] According to Kortan, walking speed for adults is about 4 km/h. Seniors, children and parents with children tend to walk slower at about 2.5 km/h. Convenient walking time and distance in a campus is around 12-15 minutes and 800-1000 meters.[141] Since, another important aspect of contemporary universities is inter-disciplinary education; students should be able to walk from building to building in 10-15 minutes of recess.

3.2.3. Population and Growth

One of the important inputs for university campus design approach is the estimated number of students. Determining an optimum numeric value as proposed for cities is beyond the scope of this research. Population of today's campuses varies from 5.000 to as high as 200.000. This decision is usually taken by others, but the designer should develop his/her ideas accordingly.

In this subject, concept from neighborhood unit design should also be visited. Suggestions for the population of a neighborhood unit have usually been in the range which Clarence Perry suggested: 3.000 to 12.000. 1942 Chicago and 1944 London plans respectively set the figures as: 4.000 to 12.000 and 6.000 to 10.000.[142] Obviously, a campus can accommodate larger numbers but the scale of common interaction patterns should be arranged accordingly. The risk of losing the sense of community and appropriation raised by very large student population, should be a major concern in university campus design.

The construction of a new campus is usually a whole process. Not only because of financial affordability but also operational reasons. Universities usually commence

---

[140] Kortan (1981, 22)
[141] Kortan (1981, 22)
[142] Barlas (2012, 283)

education with a reasonable number of students and reach its designated capacity after a few years at least. For this reason, growth projections and phases of construction can also shape the design process.

3.3. Summary of the Chapter

The tendencies in university campus design also exhibit a pattern of development in accordance with time and place. In Europe there were basically two approaches to university campus design regarded as continental and British. In continental Europe, singular buildings in city centers served as educational institutions, where in Britain colleges were built with introverted courtyard plans, gathering other functions such as accommodation as well. The latter, often regarded as Oxbridge (Oxford and Cambridge), was adopted by the American colonialists and conveyed to the new world, where many of the new campus design approaches were going to be explored until the earlier 20th century.

The general ideas and principles in urban planning in the 20th century were dominated by the CIAM meetings, and Team 10 which emerged as a reaction to CIAM. Campus design approaches were also influenced by these movements; in fact many architects and planners regarded campus design projects as a practice of their planning ideas. Only towards the end of the century, new ideas were introduced by the movement of post-modernism.

The approaches to university campus design have exhibited many different outlooks. However, the idea of community life has not been implemented adequately. So far, the discussion on universities indicates a significant and substantial relationship between the institution and the place on which it stand.[143] In order to understand the social dynamics provided by the campus, first the concept of "place" and its philosophical background should be discussed; which will be the subject of the next chapter.

---

[143] Even the word "academy" was derived from the name of the garden (academia) where Plato founded his school. Same relationship also exists between Aristotle's school and "Lyceum".

CHAPTER 4

PLACE

The Earth is a round object, located at the center of the universe and it stands still while all the other objects in the skies rotate around it. These objects are, in their respective order; Moon, Mercury, Venus, Sun, Mars, Jupiter and Saturn. This is a brief summary of how Aristotle explained the formation of the universe, in 340 BC. Almost 500 years later Ptolemy came up with a cosmological model, based on Aristotle's ideas. The seven known celestial objects were surrounded with an outer sphere of quiescent stars, marking the borders of the universe. Although, he could not explain why the size of the moon did not change depending upon its movement, Ptolemy was still fine with it. His model was widely accepted, even by the Church since it was compatible with canonical writings, and heaven and hell were obviously located beyond the stars.

In 1514, Copernicus propounded a new model in which the Sun was standing at the center where the Earth and other planets orbited around it. A hundred years later, Galileo observed that a few satellites or moons were orbiting around Jupiter and all objects should not necessarily revolve around the Earth. In the same period, Kepler claimed that the trajectory of the planets was elliptical, rather than circular and with this model, finally observations sorted together with predictions. In 1687, the greatest achievement yet in the field of physics, Newton's law of universal gravitation, explained a large part of the phenomenon forming the universe with great precision. What he could not explain was an unknown force preventing the stars from collapsing into each other. However, the idea that there was a boundary of the universe was challenged.

In 1929, Edwin Hubble discovered that in whichever direction observed, the distant galaxies were moving away from us. In other words, the universe was expanding which meant that these objects were closer in an earlier period of time. Some ten or twenty billion years ago all these objects were exactly at the same point, thus the density of the universe was infinite. Hubble's observations pointed out to a moment called Big Bang. Since earlier times cannot be defined and the events, if any, cannot affect what happens today, one may think of the Big Bang as the beginning of time.

All these "pictures of the universe" are based on scientific theories which by their nature are always provisional. No matter how many experiments provide the same results, there is no certainty that next experiment will not contradict the theory. Usually in practice, a new theory is based on the previous one which is challenged by a newly discovered observation. For example, Newton's theory could not explain a small difference between the prediction and the motion of the planet Mercury revealed by very accurate observations, however Einstein's general theory of relativity could. In conclusion, a theory is *"(...) just a model of the universe, or a restricted part of it, and a set of rules that relate quantities in the model to observations that we make. It exists only in our minds and does not have any other reality (whatever that might mean)."* as Stephen Hawking defines it and provides an evolution of the outlooks of human towards the universe, summarized above.[144]

Currently valid theories tell us that the Earth is a very small object in the Solar System, which is the size of a dust particle compared to the Milky Way, one of the 170 billion galaxies in the observable universe. However, it is still understandable that in the beginning, the cosmological understanding of the human being tended to locate the Earth in the center of the whole universe. It is also understandable why even the other objects in the skies should have been the gods to this world. That is because even in today's theoretical framework, billions of distant locations in the universe do not make sense to human as much as the tiny speck of pale blue dust what we call Earth. In that sense the concept of "place" should be taken in regard to human and their relationship with the environment. So far we have already seen the

---

[144] Hawking (1988)

68

place – institution association in the evolution of universities. This chapter will present a brief discussion of the place concept itself, before we move on to the social considerations it leads to.

4.1. What is Place?

There are many ways to describe a certain location on Earth. One may describe it in approximation to a previously identified location; such as "10 kilometers northeast of Ankara"; provided that 'Ankara' is an already known by the addressee. A more accurate way would be to note its geographic coordinates, which substantially means to define it in relation to principle reference locations such as equator and poles. Also, the boundaries of a location are descriptive in order to identify it. However, the characteristics of the boundaries may vary. For a property plot, it can be reified to a simple sketch and numerical values, while a skydiver may describe the 'sky' as a 'place' with an abstract and indefinite boundary in which they feel certain strong sentiments within.

17th century influential French philosopher René Descartes, described in the concept (named after him) Cartesian dualism that there are two fundamental kinds of substance: mental and material. He is also well known for inventing the Cartesian coordinate system which obviously represents a mathematical notation of said material existence.

In other respects, place is the main medium through which an architect, urban designer or landscape architect interact with the people who are intended to exploit it. In the practice of the designers of the environment, the 'meaning' which place increate should be of utmost importance. On one hand, the eventual product of a designer is a large piece of paper regarding to the material existence of the place. All in all, a shop drawing is basically a Cartesian description of the designed environment. On the other hand, what is really 'meaningful' of an environment is the possibilities and intertwinements of individual and social behaviors, or even thoughts and sentiments. In other words, it is the 'mental' peculiarities of the substance that

69

really does the tricks. In this sense, in order to further analyze the concept of place, instead of fractionating, it would be useful to understand the relation between the mental and material substances as Descartes would define, and take it into consideration as a whole other matter.

It was Christian Norberg-Schulz who said, *"In discussing architectural matters we rarely achieve anything but a quarrel about what you like and what I like."*[145] In fact, architectural discussion, by its very nature, can hardly be based on positive theories. However, setting an argument in a well defined theoretical framework is useful and essential for the building up of a strong discourse. Baykan Günay, also described his attitude towards idea building as, *"(…) whenever you need some kind of justification or definition of something, be it a problem, a corollary, or an argument, philosophical frameworks may provide the necessary perspective. Otherwise, there is always a danger of discursive, but never-ending, debates."*[146] In this case, deeper discussion on the concept of place will be sought after in Heideggerian ontology.

4.2. Ontological Argument on Place

Ontology is *"the branch of philosophy pursuing such questions as, what is real? What is the difference between appearance and reality? What is the relation between minds and bodies? Are numbers and concepts real, or are only physical objects real?"* as Palmer defines it.[147] Hızır further expanses this basic discussion as:

> *"Ontology, that is, the science of being, tries to apprehend the being as it is seen and observed by the individual. Being is what is seen. (…) In reality, being cannot be apprehended through abstraction, but through living it or observing it as a living thing, because the human being, through contemplating what it is, is the only being that can conceptualize what being is."*[148]

---

[145] Quoted in Lang (1987, 17)
[146] Günay (2005, 113)
[147] Quoted in Günay (2005, 113) and Günay (2009, 123-124)
[148] Quoted in Günay (2005, 113)

It is already stated that place can be taken as a Cartesian being that is described by its coordinates. However, such approach may fail to provide an understanding of the dynamics of the social interaction it provides. Given the basic description above about being, the aim of this chapter will be to take place as a being, within the ontological outlook towards is as it is seen, observed, apprehended, experienced and conceptualized by human.

Martin Heidegger was a 20th century philosopher and an important and influential figure in the field of ontology. By his time, the Cartesian thought based on a mind-body model mentioned above has become outdated in the ontology discussion. In this model, the environment was considered a projection of mind. Heidegger did not turn a blind eye to mind-matter relation but questioned the 'meaning' of the being. He regarded being as *"for which the 'there' and the 'when' make sense because the human's awareness defines a 'there' and a 'when' among all other beings."*[149] Heidegger's understanding on being of human is strongly based on exploring their environment. What distinguish human from other beings is their sense of consciousness, and the ability to observe other beings. Human's conception of its world is what is seen and experienced. In this sense, Heidegger identifies the distinctive feature of the human being using the German word 'Dasein', which literally means 'being there'.[150]

4.2.1. Dasein

In simple terms, Dasein is the Heideggerian terminology for the being, for which being itself is a problem and who ask the question what being means. It is the basic aspect and feature of human being. Palmer explains this point as follows:

> *"Humans have certain attitudes toward beings. In this respect, we are like other animals. But unlike other animals, humans also have an attitude toward Being itself. We 'comport' ourselves toward it. We are unique not simply because only we can question Being, but also in that, in questioning Being,*

---

[149] Quoted in Günay (2009, 124)
[150] Günay (2009)

we put our own Being in question. We are the only being whose own Being is a question for itself. Therefore, our being is different.[151]

In other words, in the discussion of the question of being, Dasein is the being who asks the question of being. According to Heidegger, to think about being, one must first find out how Dasein comprehends being. Instead of the subject-object duality of Descartes[152], Heidegger elaborates on understanding Dasein in their casual daily life. He states this idea in such phrases as: *"Other beings 'are'; we 'exist'. (…) Unlike other beings, which are merely 'in' the world, Dasein 'has' a world."*[153]

4.2.2. The Environment

For Heidegger, 'knowing' is just one way of, as he describes, 'being-in-the-world'[154]. He argues that, 'knowing' is not just an intellectual act, against the general conception of most philosophers, who have regarded the world mainly as the 'object of human knowledge'.[155] Instead, he claims that, in the context of usage, one can understand something. An attitude like that of a scientist or theorist towards things, concerning only with the bare facts of it by its beholder is called by Heidegger as 'present-at-hand',[156] where himself rather regards things as 'ready-to-hand'.[157] Heidegger's conception of the relation between being and its environment may further be explained as follows:

> *"The 'there' of our 'being-there' (Dasein) is filled with objects that are there for us, ready-to-hand. We have 'care' or 'concern' for them. This 'care'[158] is*

---

[151] Palmer (1994, 335)

[152] Descartes's duality was already explained as mind- matter. In this context, Descartes believed that thought (subjectivity) was the essence of the mind, and that extension (the occupation of space) was the essence of matter.

[153] Palmer (1994, 335)

[154] Heidegger benefitted from the rich word-building capacity of the German language. In fact, he frequently created his own words for the concepts he discussed. Therefore, it would be useful to mark down the original German versions of his terms. In this case, in original Heideggerian terminology: *"In-der-Welt-sein"*

[155] Once again, read 'object' in the context of Cartesian subject- object duality.

[156] In original Heideggerian terminology: *"Vorhandenheit"*

[157] In original Heideggerian terminology: *"Zuhandenheit"*

[158] In original Heideggerian terminology: *"Sorge"*

one of the main characteristics of human existence, care for the world around
us, both the natural and the human world."[159]

The 'there' of Dasein also comprises the Dasein of others, among the objects for our use. 'Being-in-the-world' also means 'being-with'[160] others. The human-human relation, in other words social aspect, will be further discussed in the next chapter. However, the relation between human and its environment is strongly related to the place concept. In the same manner, it relates to human existence as Heidegger argues that: *"And when we express care not just for beings but for Being itself, we are our most authentic selves as humans.*"[161]

Heidegger professed his basic ideas, mentioned above briefly, in one of his early writings, "Being and Time"[162] published in 1927. Although, he intended to write a follow up essay concluding the discussion, he never did. It is possible that he became more involved in other subjects as well, or as one of his critics said: *"the path to the Being proved to be a dead end.*"[163] Either way, his works has been influential for many thinkers, including those from the field of architecture and urban design. It is remarkable that he related the appropriation of place (among other 'things') directly to the 'being' of the human. This approach transforms the concept of place from a quantifiable remote object, to an important aspect of the human essence.

4.2.3. The Thing

Heidegger intentionally dissociated the terms 'thing' and 'object', and used the former to represent his understanding of the beings. Initially, in questioning fundamentals of being, Heidegger adopted the study of phenomenology, shaped by Edmund Husserl, who based his ideas on Hegel and Schopenhauer.[164] Sharr explains that: *"For Heidegger, being was primarily phenomenological rather than cerebral*

---

[159] Palmer (1994, 336)
[160] In original Heideggerian terminology: *"Mitsein"*
[161] Palmer (1994, 336)
[162] Heidegger (1962)
[163] Palmer (1994, 338)
[164] Sharr (2007, 27)

(...) In the philosopher's scheme, each of us exists before we start thinking, and before we start trying to think about our own existence. "[165]

In order to discuss the thing, Heidegger uses a hypothetical jug as an analogy. As well as the famous rhetorical question "Is the glass half empty or half full?", scientifically a jug could never be empty, since even when it does not contain wine, it still contains another fluid, air. However, in daily life people never comprehend the filling and pouring of a jug as such. Heidegger explored the thing, in terms of its appreciation through human experience. The jug emerges as a thing in consequence of the physical and intellectual relationship of human with it.[166] The being of jug is based on the human's appreciation of it. In this sense, rather than the clay material that occupies a physical volume, it is the emptiness defined in the shape of the jug, which appeal to the human appreciation, and ultimately 'make sense'. Heidegger defined the thing as 'self-supporting'[167] and asserted that: *"When we take the jug as a made vessel, then surely we are apprehending it -so it seems- as a thing and never a mere object."* [168]

4.2.4. How does Place Come into Existence?

As it is already discussed, if the thing comes into existence depending on the appreciation of it by human, place, which is also a 'thing', can be considered similarly. In terms of human experience, what makes somewhere a 'place' is implicit in what it means through the perception and experience of human. To better exemplify this thought, Heidegger uses another analogy: a hypothetical bridge. Here, the bridge also is taken into consideration in terms of its phenomenological significance, rather than its technical qualities. The construction of a bridge, provides an access between the two banks, and changes the pattern of people's daily activity. It also changes the perception of the people, who live near or cross it regularly.

---

[165] Sharr (2007, 27)
[166] Heidegger (1971, 168)
[167] In original Heideggerian terminology: *"Selbständiges"*
[168] Heidegger (1971, 167)

Through daily experience, it becomes familiar and makes some kind of sense for those who use it. In this sense, Heidegger explains the existence of place as follows:

> *"The place is not already there before the bridge is. Before the bridge stands, there are of course many spots along the stream that can be occupied by something. One of them proves to be a place, and does so because of the bridge. Thus the bridge does not come first to place to stand in it; rather a place comes into existence only by virtue of the bridge."*[169]

When the bridge is built, once one of the random spots on the stream, is regarded differently by the people who perceive it and becomes 'the place of the bridge'. In architectural terms, whatever the reason was to choose it as the most appropriate spot, the process is regarded as important. Christian Norberg-Schulz named it the 'concretization' of space, and Simon Unwin called it the 'identification' of place.[170]

Unwin himself makes another good analogy, in order to explain his idea of identification of place: a picnic.[171] When picnickers go to a park, first thing they would do is to look for a good place to settle. The considerations for the choice may vary immensely: they may want to have some shade if it's a sunny day; they may want to check around to see if there are any acquaintances; they may want to enjoy a scenic view; or they may want to choose a more secluded nook. Once decided, the picnickers will lay out their blanket, thus a place has been identified. The process keeps on further, when people start to pick their spots to sit down and put down their things. It is defined as:

> *"The organization of the picnic is a choreography of small-scale place identifications. In Heideggerian terms a site has been gathered; the picnic has been placed. Numerous places have come into existence by virtue of the picnic."*[172]

---

[169] Heidegger (1971, 154)
[170] Sharr (2007, 52-53)
[171] Unwin (1997, 15)
[172] Sharr (2007, 53)

Besides, the place which comes into existence with the laying out of the picnic blanket does not disappear by picking it up after the event. The spot where it took place will never be the same as before in the mind of those involved:

> *"In Heideggerian terms, the place wasn't there before the picnic was. But for those on whose minds the picnic became imprinted, it would always be identified as the place of the picnic. Others, who maybe have cause to identify instead with other places in the park, could pass it every day with no appreciation of the picnic and the place that other people recognize."*[173]

This kind of an approach towards place is strongly subjective. Despite the fact that, Heidegger refused the subject-object duality of Descartes, if a comparison needs to be done, this approach would be the exact opposite of the Cartesian definition of place. Sharr expresses a similar thought:

> *"Identifying a place involves determining a boundary of some sort around a place in space. This identification, as we have seen, belongs primarily in the mind of the beholder for Heidegger. (...) For him, only thus is space itself understood: as the context within which we're able to identify boundaries around places. To Heidegger space only comes into being because we're able to identify places."*[174]

4.2.5. Dwelling on the Earth

The word 'dwell' basically means 'live in or at a specified place'.[175] This simple definition contains two essential words in regard to this discussion. One obviously is 'place', and the other is 'live', which has certain connotations to one of Heidegger's key concepts: daily life. In his essay 'Building Dwelling Thinking', Heidegger discussed thoroughly the word 'dwell'. In fact, he structured the essay around two

---

[173] Sharr (2007, 54)
[174] Sharr (2007, 56)
[175] Oxford Dictionary

questions: *"What is it to dwell?"* and *"How does building belong to dwelling?"*[176] Of course, as an author who frequently introduced neologisms and adapted vocabulary to his writings, by making use of the rich word building capability of German, Heidegger used these questions to introduce his interpretation and definition of 'dwelling'.

The ideas that Heidegger developed in the mentioned essay, included references to his former works, such as 'The Thing', and extended some of the concept he already came up with. He considered dwelling in relation to the activities between the human and the 'things' of the place, and the attempt of the human to comprehend and make sense of the place. He claimed dwelling to be *"a peaceful accommodation between individuals and the world."*[177] He rejected the aesthetic or technical outlook of the architects and engineers towards the building, and argued that a building should not be taken as a product of construction activity, but as an ongoing human experience of dwelling.[178] In 'Building Dwelling Thinking', Heidegger wrote:

> *"The essence of building is letting dwell. Building accomplishes its essential process in the raising of places by the joining of their spaces. Only if we are capable of dwelling, only then we can build."*[179]

Heidegger did twice mention the last sentence above throughout the text: *"Only if we are capable of dwelling, only then we can build."* It is, in a sense, a poetic manifestation of his understanding. Substantially, Heidegger considers dwelling as *"the basic character of being"*.[180] Human was in need of a shelter as soon as they established a relation with the nature. Human, 'built in this world', as the first reaction of their being towards the 'things' surrounding them. In this sense, dwelling is *"an accommodation between people and their surroundings. (...) being at one with the world: peaceful, contented, liberating."*[181]

---

[176] Heidegger (1971, 347)
[177] Sharr (2007, 36)
[178] Sharr (2007, 46)
[179] Heidegger (1971, 160)
[180] Heidegger (1971, 160)
[181] Sharr (2007, 41)

4.3. Architectural Interpretations

Heidegger, himself occasionally wrote on the subjects of architecture. However, his main intention usually was to produce ideas for the field of ontology, and from time to time, he referred to architectural cases to better exemplify his views. Besides, many of his works were followed by the architecture community. His initial presentation of 'Building Dwelling Thinking' was delivered in Darmstadt in 1951, to an audience, largely consisting of architects, engineers and philosophers. Among them were some of the leading figures of German architecture community, Otto Bartning, Paul Bonatz, Richard Riemerschmid, and Hans Scharoun.[182] Many years later, Christian Norberg-Schulz, who was influenced widely by Heidegger's work, raised its recognition in English speaking architectural culture, through his books, 'Existence, Space and Architecture' (1971), 'Genius Loci: Toward a Phenomenology of Architecture' (1980) and 'Architecture, Meaning and Place' (1988). Other architects and theorists, influenced by Heidegger's work include; Peter Zumthor, Dalibor Vesely, Karsten Harries, Kenneth Frampton, Steven Holl, and others as well.[183]

4.3.1. Place, Space and Existence

Before discussing these ideas, it could be useful to make an interpretation of Heidegger's ontological theories, and evaluate it in regard to architectural practice. First of all, the most significant aspect of Heidegger's conception of place is that, he defines it as an outcome of people's experiences and memories, rather than physical properties of it. A place comes into existence by a person who relates its imaginary borders with a memory in his mind. Sharr argues that, the *"activities involving the identification of place are neither logical nor systematic; remaining subjective, tentative, shifting and contingent."*[184]

---

[182] Sharr (2007, 36)
[183] Sharr (2007)
[184] Sharr (2007, 54)

In this sense, a town or a city, where many different people live together, contain maybe many millions of different identifications of place. These identifications sometimes differ, and sometimes overlap with each other. But in any case, in Heideggerian terms, place is produced by the human exploiting it. And the question to be asked is, 'If it is the user of the environment who creates the place, what is the role of the architect, urban designer or landscape architect in its creation?'

Figure 4.1: Whether or not it was intended by the architect, neighborhood youngsters created a 'skateboarding place' in the front plaza of Casa da Música, in Porto

The answer to that question becomes clear in an endeavor to define the 'boundaries' of place. Identification of a place requires conceiving a kind of a boundary of it in space, which is, as already mentioned, a process happening in the mind of the beholder. Construction is an activity which can fulfill the imaginative demarcation in a physical manner. According to Heidegger, construction may be understood as building or any other kind of physical demarcation, such as the laying out of a picnic blanket. In this sense, a person's identification of place can also be the same for other people, since its physicality help to form the same boundaries for everyone. The nature of the boundary is inherent in Heidegger's definition of space:

> *"A space is something that has been made room for, something that has been freed, namely, within a boundary, Greek peras. A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its essential unfolding. (...) Space is in essence*

that for which room has been made, that which is let into its bounds. (...)
Accordingly spaces receive their being from places and not from 'space'."[185]

So it seems that people also understand the built environment through their own identification of place. The boundary drawn in the human mind is like an imaginary lasso, thrown by the individual into somewhere in the broad context of generic space. However, in many cases, like the analogy of the picnic, this lasso is indeterminate. It is not necessarily exact, like a drawing on a piece of paper and usually cannot be defined precisely. However, in Heideggerian model, *"the edges of the places we define are more likely to be precise if they align with physical boundaries."*[186] In the nature, we tend to do this alignment by means of pre-inscribed demarcations such as, a path, a river, a distinctive tree or stone. In the urban context, it is the built environment that provides different demarcations.

4.3.2. The Order and the Image

The relation between the Heideggerian conception of place and the physical environment evokes two different works related to this discussion. One of them is Eduardo E. Lozano's 'Community Design and Culture of Cities' published in 1990. In his work, Lozano defined place quality as *"a function of two interrelated concepts, diversity and orientation. While the former is the variety and number of components that make up as setting, the latter is a sense through which one can understand and specify their location amidst these components and the setting."*[187] In this definition, the word 'components' may easily be read as 'things' which is in Heideggerian terminology the key term used for defining being. Here, Lozano speaks of a certain perceptual arrangement of 'components/things' that he claims to be related to 'place quality'. In doing so, he links the outcome to a certain level of balance between contrasting concepts such as, 'diversity' and 'orientation', 'monotony' and 'complexity', 'high-level order' and 'low-level order'.[188] Detailed

---

[185] Heidegger (1971, 154)
[186] Sharr (2007, 56)
[187] Barlas (2006, 154)
[188] Barlas (2006, 154-155)

explanation of these terms are not directly related to this discussion, but it is a very intriguing resemblance that, Lozano also considered a place to be 'of high quality' by virtue of a certain organization of its components. His theory can be taken into consideration whether this certain organization produces 'place quality', because the physical demarcations it contains, comply with the mental place identification praxis of the human.

The second book related to this discussion is Kevin Lynch's 'The Image of the City' published in 1960. In one of the most influential works of the late 20th century urban planning literature, Lynch was also in search of something, as he called it the 'visual quality' of American city. To understand the true nature of this concept, Lynch appealed to the citizens and the 'mental image' they hold of the city. He also discussed city as a being, as in Heidegger's ontology, in relation to its appreciation by human:

> *"Nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, the memory of past experiences. (…) Every citizen has had long associations with some part of his city, and his image is soaked in memories and meanings. (…) To understand this, we must consider not just the city as a thing in itself, but the city being perceived by its inhabitants."*[189]

Lynch conducted his research in three different cities of the U.S. which are Boston, Jersey City and Los Angeles. The first phase of the research included a systematic field observation by a trained observer who identified and mapped several visual elements of designated neighborhood. The second phase consisted of lengthy interviews of a total of 60 citizens in order to understand the images they bear in their mind of their physical environment. Disregarding other meanings inherent in the city such as, social meaning, function, history, etc., Lynch classified *"the contents of the city images which are referable to physical forms into five types of*

---

[189] Lynch (1960, 1-3)

elements: paths, edges, districts, nodes, and landmarks."[190] Soon, these elements became very popular in further studies in the urban planning field.

Once again, the detailed definitions of these concepts will not be discussed in this study. However, since both Heidegger's and Lynch's approaches to the identification or understanding of place is thorough the memories and experiences of its inhabitants, it could be useful to look at Lynch's five element from the point of view of Heidegger's space-place conception.

The first two of Lynch's element, path and edge, are both linear elements, where the third one, district, is defined by a linear extent. The most notable one of these is edge which is in fact a synonym of boundary. However, Heidegger's boundary was an imaginary lasso people used to identify places in their minds, whereas, edge in this sense is a kind of a barrier, preventing the citizen from passing beyond it. But still, Lynch points out to the importance of edges for people to organize the layout of the city in their heads.

Districts also play a similar role in this manner. They are identifiable form the inside by their certain character, and sometimes from the outside, as well. The boundary of a district is not necessarily a precise one, but so is Heidegger's imaginary lasso. However, the district 'begins its existence' from the moment people identify they have entered it, in other words penetrate through its assumed boundaries.

The path is actually the most dominant one of Lynch's elements. People move along the path and observe the city while doing so. Their images of the city or places of memory and experience, take shape during this movement. The other elements of the built environment arrange themselves in reference to the path. (Also, path is the setting of social interaction, which will be discussed in the following chapter.) If being, or Dasein as Heidegger defined it, is the stance of the human towards its environment, then literally, human stands in the path when in the context of the city. Yet, this stance is not necessarily acquired in the city. Even in the nature, we

---

[190] Lynch (1960, 46)

perceive and appreciate it, while we are moving thorough it; whether you are moving through the deserts of Arizona or high-rise buildings of the Fifth Avenue of New York City.

Figure 4.2: Path

The last two of Lynch's elements are nodes and landmarks, which are basically point-references. The former is usually a junction point of circulation or activities, while the latter is more of a physical presence unique and dominant in the image. Both may be associated to Heidegger's examples of physical demarcations which he claims to help create the place. Eventually, we face the same question. Can we reconsider Lynch's theories in regard to Heidegger's place conception? What Lynch was looking for was, as he defined: *"legibility, the apparent clarity of the cityscape."*[191] He also defined another concept to reach his goal as: *"imageability: that quality in a physical object which gives it a high probability of evoking a strong image in any given observer."*[192]

Since the ideas discussed so far regard place as an extension of personal memories and experiences, and the visual qualities of the environment as a key to strong sense of place, then it is reasonable to relate personal processes of creation of place with the physical demarcations of the built environment. In our case, for creation a university campus place of supreme quality, the activity patterns should be regarded

---

[191] Lynch (1960, 2)
[192] Lynch (1960, 9)

of utmost importance. Indeed, it is the dweller of the environment who is going to create the place, as long as the architect, urban designer and the landscape architect have provided them with a set of sound physical demarcations.

4.3.3. Architectural Theories

Heidegger, in his personal life was in contact with people who were engaged in creative activities such as, writers, poets, artists, etc. However, he did not show much interest in the architects and architecture profession of his era. Indeed, Heidegger followed phenomenology; a philosophical movement found by his friend and mentor, Edmund Husserl from Freiburg University. He favored immediate physical and imaginative experiences over scientific experiment and he would consider architects' notion unhelpful in the building-dwelling debate.[193] Yet, towards the last quarter of the century, many architects studied his works and carried the discussion into the field of architecture.

Christian Norberg-Schulz, obviously, was one of them when he described his ground rule common to all of his works; *"(...) is the view that architecture represents a means to give man an 'existential foothold'."*[194] He stated his main intention to understand the 'psychic' implications of architecture instead of the professional praxis, yet accepting the certain existing relation in between. This kind of approach to the place discussion, while parallel with that of Heidegger's, strongly opposes predecessor modernist movement, which was dominant earlier in the century. For one thing, modernists' popular motto was "Form follows function." which probably made Heidegger think of it as a merely scientific approach and decline it. However, Norberg-Schulz implied that architecture could make its peace with Heideggerian philosophy, which would make architects' professional practice 'more humane and meaningful'.

The 'foothold' Norberg-Schulz discussed, could not be gained thorough scientific understanding. For him, the analytical approach to architecture missed the

---

[193] Sharr (2007, 16-27-82-98)
[194] Norberg-Schulz (1980, 3)

'environmental character', which was essential for the identification of human and their sense of 'existential foothold'.[195] Moreover, he defined his basic understanding of place, as follows:

> *"What, then, do we mean with the word 'place'? Obviously we mean something more than abstract location. We mean a totality made up of concrete things having material substance, shape, texture and colour. Together these things determine an 'environmental character', which is the essence of place."*[196]

The qualities that Norberg-Schulz used to define place are the parts of what he calls 'total phenomenon'. In that case, the nature of the total is something more than the sum of its parts. Hence, analytic or scientific concepts lack in describing the qualitative totality of place. Eventually, Norberg-Schulz found hints to the question of place, in the everyday life-world and the method to realize it: phenomenology.[197]

Kenneth Frampton was another proponent of Heidegger's work. Two of his essays, 'On Reading Heidegger' and 'Towards a Critical Regionalism', start with an immediate attack on what he calls *"utopian hallucinations of the Enlightenment"*.[198] In relation with the discussion of 'progressist' and 'culturalist' approaches covered in the previous chapter of this thesis, Frampton's ideas can be regarded as a criticism of the former, for the sake of the latter. He states this position as follows: *"Architecture can only be sustained today as a critical practice if it assumes as arrière-garde position."*[199] He proposes an equally distant position from both *"the Enlightenment myth of progress"* and the pre-industrial architectonic forms.[200]

Frampton, appropriated the term 'Critical Regionalism' coined by Alex Tzonis and Liliane Lefaivre in 'The Grid and the Pathway' (1981); and discussed his own

---

[195] Norberg-Schulz (1980, 3)
[196] Norberg-Schulz (1980, 7-8)
[197] Norberg-Schulz (1980, 8)
[198] Frampton (1974)
[199] Frampton (1983, 20)
[200] Frampton (1983, 20)

interpretation of it. It was basically a reaction to both the sense of 'placelessness' and lack of identity of the modernist, and odd ornamentational approach of the postmodernist movements. Regionalism was already in practice for more than two centuries all around the world but it bore a distinctive ambiguity. It was in a strange way both associated with reformist and repressive ideologies. Frampton explains his stance as:

> *"The fundamental strategy of Critical Regionalism is to mediate the impact of universal civilization with elements derived indirectly from the peculiarities of a particular place. (...) Critical Regionalism depends upon maintaining a high level of critical self-consciousness."*[201]

In conclusion, Frampton seems to evaluate and acknowledge Heidegger's phenomenological approach and renouncement of scientific examination of the things in the environment. However, his attempts display a pattern of critical equilibrium between the professional practice of building and existential expression of dwelling.

4.4. Summary of the Chapter

Place, in its simplest definition, is a certain location on the Earth. The Cartesian approach regards place as sole material, and defines it based on its geographic coordinates. However in architectural practice place bears a certain meaning for its inhabitants. In order to better understand this concept, place has been taken into consideration through the ontological argument developed by 20th century philosopher Martin Heidegger.

Heidegger rejected the Cartesian definition of the being. He regarded the human being different than other beings because human is the only being for whom the question of being makes sense. For this reason, he named human existence as 'Dasein', a German word which can be translated as 'being-there'. He also

---

[201] Frampton (1983, 21)

disregarded the outlook that considered the environment as a sole material, but took it as a being that evoked the concern of Dasein. He intentionally introduced the term 'thing' instead of 'object' in order to define other beings in the environment.

The relation between building and place is also discussed in the same context. According to Heidegger, place comes into existence in the mind of the human being, based on their memories and experiences. From this point of view, place is rather subjective and it is defined by the identification process in human mind. Heidegger also discussed the concept of building in regard to dwelling and claimed that the act of building is not a professional practice but it is a function of dwelling. He stated: *"Only if we are capable of dwelling, only then we can build."*

The ontological discussion of Heidegger was not necessarily produced for architectural discourse. Nevertheless, many architects and theorists showed interest in his works. Christian Norberg-Schulz wrote extensively on the discussion of place where he took a stance in favor of phenomenology, and his ideas were based on the theoretical framework of Heidegger's writings. Kenneth Frampton was another important figure, who strived to find equilibrium between the architecture profession and everyday life and came up with several principles of what is known as Critical Regionalism.

In brief, the discussion of this chapter is based on a conception of place from the point of view of its relation with everyday life of human being. Place is defined as a meaningful being only when it is appreciated and apprehended by its users. The discussion has been an endeavor in understanding the relation between place and human. On the other hand, place also has a crucial role in creating the relation between human and other humans. In other words, place is the scene for social interaction of communities. Thus, the discussion will proceed to the social aspect of university campus place, which is the subject matter of the next chapter.

CHAPTER 5

SOCIETY

On 30th of September 1659, out in the Atlantic Ocean, a ship which was on an expedition to bring slaves from Africa was wrecked during a violent storm about forty miles out to sea on an island. Nobody was able to survive the shipwreck but one man, who scarcely swam to the shore, only to find himself alone on a desert island. Overcoming his despair, he started to find ways to maintain a life by making tools, building a shelter, hunting and growing barley and rice. He learned how to make pottery and raised some goats he found in the wilderness. He even adopted a small parrot as a pet. As years passed, he read the Bible that he retrieved from the ship, and thanked God for the humble world he was able to build up, in which nothing was missing but human society.

The man whose story is summarized above is none other than Robinson Crusoe, the main character of the renowned novel written by English author Daniel Defoe in 1719. Quite ordinarily, Defoe was born and raised up in a civilized society. In our regular world, the precondition of human existence appears to be living among other human beings, as a matter of course. It is believed that Defoe was influenced by the stories told about shipwreck survivors frequently reported from the Americas. Apparently, he was trying to picture the life of a human being living on his own, in contrast to the default social life.

Defoe's work was not precisely a philosophical analysis on human nature but more of an exotic adventure of an unusual character. However, as the narrative proceeds, Defoe feels the need of introducing a supportive character and that is when Robinson

Crusoe meets Friday, a native prisoner he rescued from cannibals. After that, Friday becomes his companion, and Robinson teaches him English and converts him to Christianity. Even in this fictional context, Robinson's own journey of finding God on a desert island makes sense when he is able to share it with another human being. At the end of the story, Robinson and Friday manage to find a ship and arrive in England. It could be considered a happy ending since Robinson Crusoe returns back to the society, as a wealthy man.
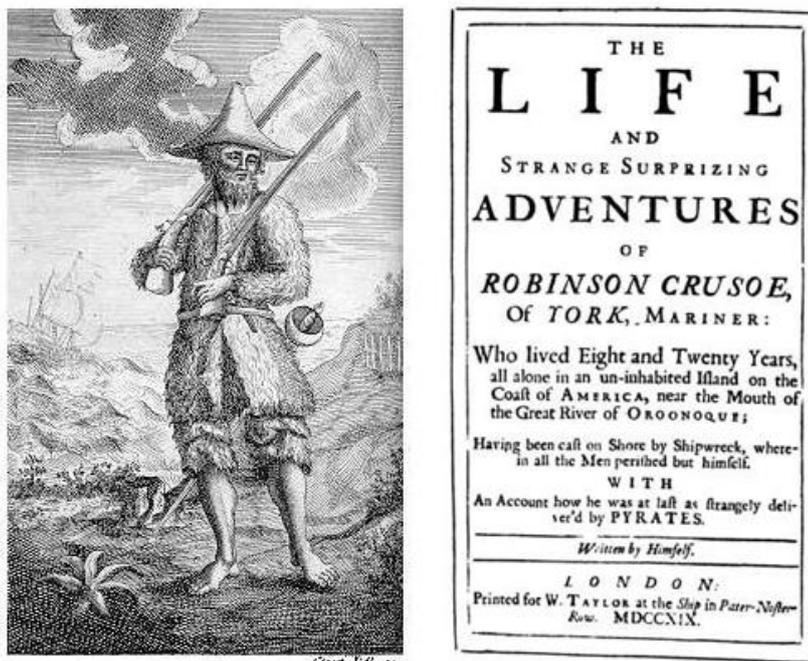
Figure 5.1: Cover and illustration from the first edition of Robinson Crusoe

Obviously, the story of Robinson Crusoe would not make sense as much if he would live and die alone on the island, since nobody would actually be aware of his existence, at all. In this context, the discussion of existence may be shifted into another direction by asking a simple question: *"How would we know that we exist and persist as individuals if there is nothing around to compare our own beings?"*[202] One finds the reflection of self in other beings. The relation between self and other is a complementary one. This is not merely a process of socialization, but the very nature of being, in relation to the being of others and the surrounding environment.[203]

---

[202] Barlas (2006, 3)
[203] Barlas (2006, 3)

A group of people involved in a certain level of relationship is the basic form of society. However, the nature of this relationship may vary widely. It may be defined by sharing a common geography or territory, responding to a certain authority, interest in a mutual benefit, a shared ethnicity, nation or history, or even an organized voluntary association. Anthropologically, first human societies formed according to their basic needs of subsistence. The complexity of its functioning developed accordingly when societies evolved from hunter-gatherer into agricultural, and then into industrial.

One of the most important products of the society is the city. Human settlements have also evolved into a more complex presence throughout the history. However, the correlation between the complexity of the social and civic organizations, seems like a chicken and egg situation. It should come as no surprise that the greatest civilizations of the past, even those in the ancient times, achieved to organize the complex social order and produce the masterworks of architecture and urbanism of their time. To understand the nature of the human and the built environment, a relevant course of though should be set for further discussion.

5.1. Human Behavior

It can easily be suggested that human builds according to their needs. Indeed, it is presumed that the very first architectural activity of human was building a primitive shelter to avoid the harshness of the nature. In a sense, it is the very basic form of dwelling on the earth; human's ontological reaction to the environment in which they exist. The magnitude of this reaction has grown immensely throughout history and now human lives and dwells in some gigantic clusters of enhanced shelters which are called metropolis. Nevertheless, the contemporary city still struggles to adequately provide for human's needs.

The ecological approach to environmental perception and cognition, analyzes the major determining factors of human behavior as a function of both their motivations

and needs, and the perceptual and cognitive impulses provided by the environment.[204] This duality can easily be related to the previously discussed process of place formation. Now, it more strongly appears that both processes are conducted by the reciprocity of human-environment relation. The built environment side of this duality is the concern of architectural practice, obviously, and so understanding the human should be of essential importance.

5.1.1. Motivation

What the needs of human are, is an over loaded question. There have been different attempts to explain the nature of the human-environment relation. Alexander Leighton's scale of 'essential striving sentiments' is a comprehensive and detailed one. Leighton identified the following needs:

> *"(1) physical security, (2) sexual satisfaction, (3) the expression of hostility, (4) the expression of love, (5) the securing of love, (6) the receiving of recognition, (7) the expression of spontaneity, (8) orientation in terms of one's place in society and the places of others, (9) the securing and maintenance of membership in a definite group, and (10) belonging to a moral order."[205]*

The reflection of these needs to the built environment is, in some cases very obvious, such physical security as the motivation of building a shelter. Some of them are relevant but also at a symbolic level which may be hard to apprehend at once. Another model of human needs was proposed by Abraham Maslow. Unlike the former, Maslow's model was organized so that the needs were divided into groups and sorted according to a hierarchical level of significance. The well-renowned 'Maslow's hierarchy of needs' is listed as follows, from stronger to weakest:

> *"Physiological needs, such as hunger and thirst; safety needs, such as security and protection from harm; belonging and love needs, such as*

---

[204] Barlas (2006, 7)
[205] Lang (1987, 85)

membership in a group and the receiving of affection; esteem needs, those
desires of an individual to be held in high value by himself and herself
and others; actualization needs, such as the thirst for knowledge and the
desire for beauty for its own sake.''[206]
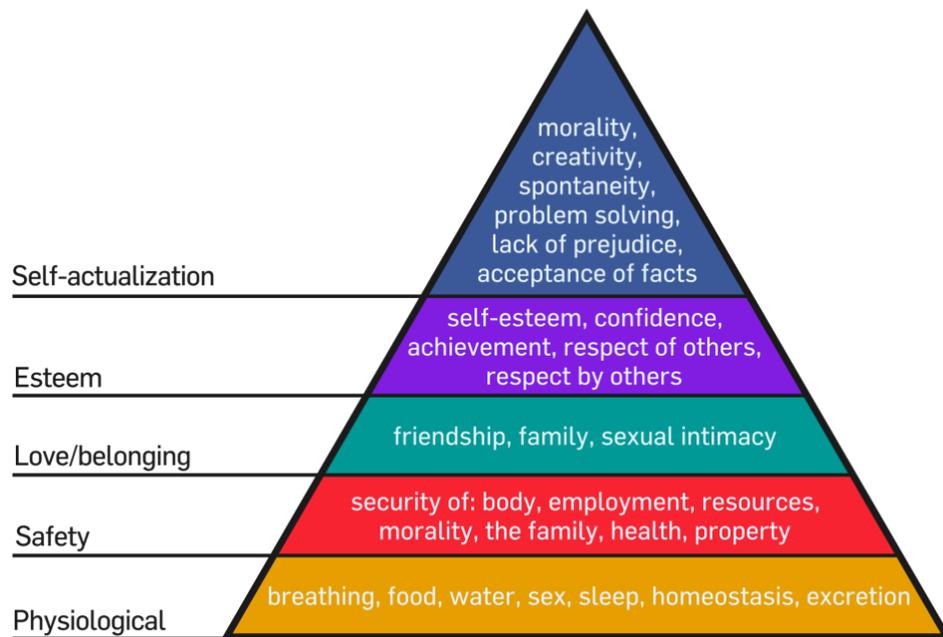
Figure 5.2: Maslow's hierarchy of needs, in pyramid scheme, with the more basic needs at the bottom

The designers of the environment can set the framework in discussing their concerns based on this classification. As in Leighton's model, this set of needs also relate to built environment in different levels. The built environment provides for the physiological and safety needs physically, such as shelter. However, other needs, the ones towards the top of the pyramid, can be satisfied more indirectly, at the level of environmental symbolism, or specific sets of activities.[207]

The needs mentioned in Maslow's model can also be grouped according to nature. Some needs are physiologically based, where others are psychologically or sociologically based. Yet, there are still some needs which are a mixture. Besides, the fulfillment level of these needs can vary from society to society and person to person.

---

[206] Lang (1987, 85)
[207] Lang (1987, 85)

However, regardless of its level of connection, people always look at the environment and make use of it in order to satisfy their needs.[208]

What Vitruvius called 'utilitas' or Henry Wotton's term 'commodity' or the catchword of the Modern Movement 'function' is one of the basic concerns of the designers of the environment. The way environment contributes to the fulfillment of some of the needs of human is inherent in its ability to provide social interactions, activities, etc. In this sense, Fred Steele defines purposes of built environment as 'shelter and security', 'social contact' and 'task instrumentality', along with the mechanism that help to achieve them.[209]

Moreover, Steele interprets Maslow's human needs in regard to these purposes and mechanisms, as shown on the table:

Need	Steele's Concerns	Sociophysical Mechanisms / Design Issues
Physiological	Shelter and security Task instrumentality	Shelter, access to services
Safety	Social contact	Access to services, privacy, territoriality, defensible space, orientation
Belonging	Social contact Symbolic identification	Access to services, communal settings, symbolic aesthetics
Esteem	Growth, pleasure	Personalization, symbolic aesthetics, control
Actualization	Growth, pleasure	Choice, access to developmental opportunities, control
Cognitive / Aesthetic	Growth, pleasure	Access to developmental opportunities, formal aesthetics

Table 5.1: Human needs and the sociophysical mechanisms required to afford them

---

[208] Lang (1987, 85)
[209] Steele (1973)

5.2. Social Interaction

Now it seems to be clear that in a Robinsonade situation, a human can barely satisfy the needs at the very bottom of Maslow's pyramidal scheme, on a desert island. This is not because the island is not capable of providing the places required for the fulfillment of the needs. But the real deficiency is the absence of a society that would create the places out of the idle island space; the places on which social interaction could happen.

The importance of social interaction can be explained by the fulfillment of the needs theory. Erving Goffman emphasized the role of face-to-face relations as the essential source of communication in order to achieve development of the self. In other words, humans have to get involved in such interactions if they desire to satisfy their needs, especially the ones of psychological or sociological nature. Regarding to Goffman's ideas, the manner face-to-face interactions take place can be described as follows: First of all, the participants involved in such interaction should be present at the same place and preferably in close proximity. A certain sublimit of intimacy or trust may be needed; however the participants do not necessarily need to be acquaintances.[210]

Goffman regarded human nature to be the same everywhere, despite their differences in culture:

> *"If persons have a universal nature, they themselves are not to be looked to for explanation of it. One must look rather to the fact that societies everywhere, if they are to be societies, must mobilize their members as self-regulating participants in social encounters. One way of mobilizing the individual for this purpose is through ritual (...)"*[211]

In this sense, the evolution of societies and their cultures depend primarily on face-to-face relations. Individuals appropriate such interactions and turn them into rituals as it introduces to them by the society. Vice versa, the behavioral patterns of the

---

[210] Barlas (2006, 76)
[211] Goffman (1967, 44)

society, which may be referred to as culture, is shaped by the rituals performed by numerous individuals. On the other hand, this process is not observable because it takes place at the level of the 'collective unconscious'.[212] The relation between the necessity of performing the rituals to the fulfillment of the needs may be established by different explanations, such as:

"Nevertheless, one can assert through Goffman's observations, that this whole process is interrelated with the development of self. While self is shaped by learning how to perform the rituals, the society's cultural traits are determined by ongoing face-to-face interactions. This also explains the external factors in the formation of self, depending on the distinct traits of different cultures."[213]

By this description, human is constrained to maintain face-to-face interaction in favor of satisfying the needs. After this clarification, the context must be connected with the main discussion: the relation between human needs and built environment. It is already mentioned that face-to-face relations between any number of people, require their presence at the same 'place', which Goffman refer to as *"copresence"*. The conditions of copresence is explained by him as: *"(...) persons must sense that they are close enough to be perceived in whatever they are doing, including their experiencing of other (...)"* in which, perception is defined as the ability to experience others with the naked senses, and affected by other conditions of the environment.[214]

The set of people in copresence, has a certain level of definitiveness which is determined by the properties of the place. Goffman further argues that in a room, the conditions of copresence have to apply to *"any and all persons present in the room."* However, in relatively unobstructed spaces, such as 'public streets' the boundaries to define a certain copresence cannot be precisely defined, because the set of people can

---

[212] Barlas (2006, 77)
[213] Barlas (2006, 77)
[214] Goffman (1963, 17)

change according to different possibilities of perception by different people.[215] In this regard, due to its public nature, street is described as the most unobstructed urban element, and it produces a rich variety of encounters, interactions and dynamism. In other words, the publicity of the place, leads to face-to-face interactions, which leads to the development of the self and the process of socialization.

5.2.1. Place is the Ultimate Need

It is so far discussed that, human make use of place and society in order to fulfill their needs. The relation between the two may differ based on the nature of the need. Sometimes, place act as a medium to bring one together with other members of the society, while at other times, it prevents the intrusion of them. The potentiality of the place to provide encounters is inherent in its public/private nature. This nature is not set in stone though; indeed it is like an alterable pointer moving on a scale with public and private ends. The more transitory area in between may be described as semi-public and semi-private places.

The public/private nature of the place may be related to their capability of providing for different needs.[216] The physiological needs for instance, are usually fulfilled in private places. These include, the need to eat and drink, the need to sleep, the need for sanitation and the need for intimacy. The most obvious physiologically based need is probably to satisfy hunger and thirst. Although, the first option that comes to mind for this activity may be the kitchen of the house, it can also occur in public or semi-public places, such as restaurants. The publicity of common eating places however, is related to their function, rather than property. On the other hand, sleeping, sanitation and intimacy involve a certain level of vulnerability; hence they are almost always conducted in privacy.

Not all needs are based on the public/private nature of the place. Safety, which is another basic physiological need, may be evaluated as such. Particularly, the need for protection against climatic conditions, is rather related to the physical qualities (or

---

[215] Goffman (1963, 17-18)
[216] For a broad discussion of this relation, see Barlas (2006, 81-100)

even technical qualities, considering HVAC systems for instance) of the place. Building interiors spontaneously provide for this need. Exterior spaces can supply a certain level of protection in this sense, especially when they are semi closed spaces such as: *"porticoes, porches, arcades, courtyards/cortiles, canopies and tents."*[217] Furthermore, interiors also provide protection against unwanted intrusions, in other words, they provide security. Nevertheless, the physical qualities can provide security to a certain extent. For overall achievement of safe and secure environment, the discussion, once again, is shaped around the public/private conception.

5.2.2. Place and Behavior

Built environment affects human behavior. It has been suggested that the lack of qualities, which lead to the fulfillment of certain human needs, such as development of the self, may result in deviant behavior, like urban crime and violence. However, the presence of such qualities does not necessarily contribute to decent social behavior. Therefore, it is argued that, architectural determinism might only be valid in terms of 'a negative kind of architectural determinism'. In other words, built environment might affect behavior negatively.[218] This discussion has been evoked by the dominant architectural movements of the 20th century, which means, once again the spotlight is shed on CIAM and Team 10 practices.

As a result of the industrialization, working class and urban population increased. With the help of technical innovations, high-rise buildings in major city centers emerged. The rapid growth of the building practices obliged architects to come up with new approaches towards urban design. Thus, the CIAM meetings were arranged in order to determine the architectural principles of the modern cities. Le Corbusier, one of the key figures of the congress, was disturbed about the skyscrapers of the New York City, emerging on the older arrangement of plots. He argued that *"there should be an adequate distance between the buildings in order to sustain greenery and provide a ratio in scales of human and concrete environment."*[219] Le

---

[217] Barlas (2006, 83-84)
[218] Lang (1987, 153)
[219] Engür (2013, 34)

Corbusier's, and CIAM's as well, urban ideals shaped around this notion. (See: Figure 3.13 for Le Corbusier's "Contemporary City" proposal)

The Contemporary City ideas produced by CIAM changed the concept of street radically. Instead of the conventional street with buildings flanking at both sides, now street was considered more as a means of vehicular transportation, running through the vast open spaces, left between high-rise blocks. This conception has been professed by the architects and urban designers throughout the first half of the 20th century.[220] However shortly after the World War II, criticism arose about the Corbusian street, as well as about the other practices of the Modern Movement.

The first critics came from within. The younger members of the CIAM, organized under the name Team 10, shifted the paradigm of architectural practice of the 20th century, which has been already discussed in previous chapters. On the other hand, Oscar Newman dealt with CIAM practices, in regard to the increasing rate of crime and violence in the American urban environment.[221] He claimed that, the physical environment, in the shape of huge high-rise residential blocks, played a role in the social decline. He pointed out to the relation of the building types and the form of the urban layout to urban violence, vandalism, etc. However, he also did not forget to mention that the problem was mainly originated in the economic factors.[222]

5.2.3. Territory

Spatial behavior is a form of human behavior. Basically, it can be defined as people's use of the environment. Some of the terms related to this type of behavior are: *"personal space, privacy, territoriality and behavior settings."*[223] One might be familiar with the sense of personal space from any elevator experience, where unfamiliar people stand very close to each other in a small cabin. The uncomfortable feeling in such a situation is perhaps related to the invasion of privacy and loss of the

---

[220] The Athens Charter (1973, 79)
[221] Newman (1972)
[222] Newman (1972)
[223] Barlas (2006, 29)

sense of security. As for privacy, it is somehow related to the aspect of control and *"this control is about a person's or a group of persons' ability to arrange their interactions with others."*[224] The third term mentioned above is territory which is strongly related with the others. Territorial behavior of animals had been analyzed for half a century before Leon Pastalan[225] brought it into the study of human behavior.[226] He defined territory as:

> *"A territory is a delimited space that a person or a group uses and defends as an exclusive preserve. It involves psychological identification with a place, symbolized by attitudes of possessiveness and arrangements of objects in the area."*[227]

In Irwin Altman's definition, the reason behind territorial behavior is the communication between self and other, where one personalizes a place or object and announces their ownership to the others.[228] Based on these definitions, Lang came up with the basic characteristics of territories, as follows:

> *"(1) the ownership of or rights to a place, (2) the personalization or marking of an area, (3) the right to defend against intrusion, and (4) the serving of several functions ranging from the meeting of basic physiological needs to the satisfaction of cognitive and aesthetic needs."*[229]

One of the attempts to identify human territories in the built environment was made by Douglas Porteous.[230] He identified three of types of spaces that are nested within

---

[224] Barlas (2006, 29)
[225] Pastalan (1970)
[226] Humans and animals exhibit territorial behavior in different ways. In animals it is biologically based. It is a localized possessiveness of place; marking is by urination and other psychological means, and defense is by fighting (often symbolic). In humans, even if territorial behavior is biologically based, it is culturally biased. Human territories vary considerably in size and locale; not only are they of place but of artifacts and ideas as well, and they are marked by a wide array of physical barriers and symbolic markers. Humans simply have a much larger number of territories and ways of dealing with them. (Lang 1987, 148)
[227] Lang (1987, 148)
[228] Lang (1987, 148)
[229] Lang (1987, 148)
[230] Porteous (1977)

each other: *"personal space (or micro-space), home base (or meso-space), and home range (or macro-space)."*[231] Personal space was already mentioned above. Home base may be work, residential or neighborhood areas, which are defended actively and home range is defined as the 'behavior settings' that form part of a person's life.[232] Hussein El-Sharkawy also identified types of territory, in the same respective order as *"attached, central, supporting, and peripheral."*[233]

Among other approaches to define territories in built environment, Oscar Newman's work "Defensible Space"[234] has been influential. He defined a hierarchical scale between 'private' and 'public' spaces, where the former represents privacy, uniqueness and protection and the latter can be used by anyone but possessed by none. He also defined supporting territories as 'semiprivate' and 'semipublic', which may also be referred to as 'intermediary spaces'. In this sense, the house is the fundamental reference for private space. The front yard of the house may be referred to as semiprivate space; it is the property of its owner but still allows occasional intrusion of others. The sidewalk in front of the house is not owned by anyone but is still under visual control of the adjacent house, thus is regarded as semi public. Finally, the street is the public space. This gradation of territories for a single-family house may differ in a multifamily housing. (See: Figure 5.3)

Newman's endeavor to define territorial hierarchies of space was mainly focused on the high-rise residential buildings of the Modern Movement where social interaction places were located in various floors of the building. In this scheme, Newman pointed out to the disappearance of the gradient transition between public and private spaces. Unlike the single or multifamily houses mentioned above, the private space (apartment unit) would directly open into the public space (corridor) in the typical double-loaded-corridor apartment building. Moreover, in this case the residents of the apartments have no visual control of the space, even in their immediate surroundings, such as the corridors or the staircases.

---

[231] Barlas (2006, 30)
[232] Lang (1987, 149)
[233] Lang (1987, 150)
[234] Newman (1972)
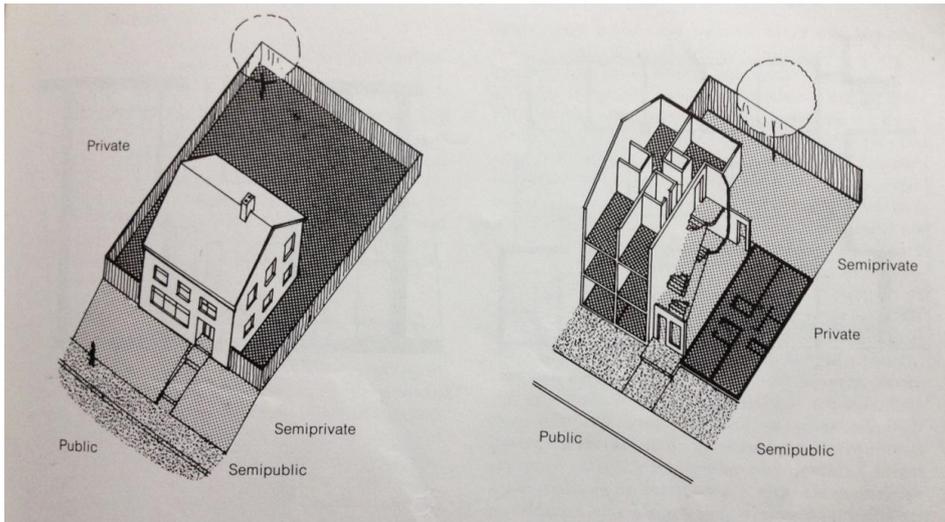
Figure 5.3: Hierarchy of territories in single and multifamily houses
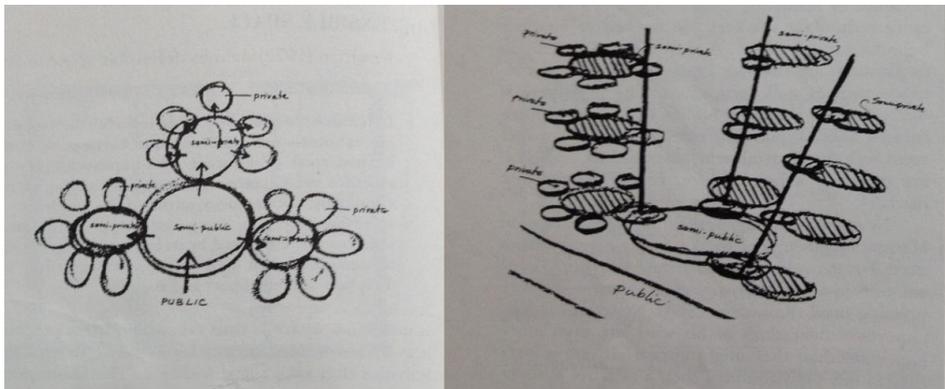
Figure 5.4: Diagram of territorial hierarchies in low-rise and high-rise housing

Similar concerns have already been felt by the architects and urban designer before Newman. As mentioned in previous chapters, first reaction to the practices of CIAM principles was enounced by Team 10. In the practice of university campus design, in other urban design practices as well, this reaction revealed itself as, returning to low-rise structures instead of the Modernist high-rise superblocks. This situation suggests the idea that, the proper use of territorial hierarchy is not only related with creating safe environments. Indeed, the feeling of safety achieved by such approach can be regarded as an outcome of a certain organization of possible social interactions, provided by the territorial hierarchy. In other words, *"a clear hierarchical definition of territories, from public to semipublic, semiprivate to private"*[235] can be used as a

---

[235] Lang (1987, 153)

design tool to produce behavior patterns and social interaction possibilities. Newman's classification seems to be a convenient tool, because:

> *"By using Newman's clarifications, first, it becomes possible to identify those urban artifacts that function as territorial markers in the micro urban scale. Second, and in relation with the first, one can define the types of behavior afforded by such artifacts. Third, it is easier to determine the kinds of needs, which different territories can fulfill. Moreover, it becomes possible to associate urban artifacts and urban spaces with these needs."*[236]

5.2.3.1 Territorial Markers

Definition of territories can be established through physical demarcations of the environment. These demarcations represent the transition between different types of territories. The way people demarcate territories vary considerably. Physical barriers such as walls, doors, locked gates, etc. provide proper control of intrusion into the private space. Territories can also be marked by the use of symbolic barriers, such as surface textures, change in the floor materials or painted lines, steps, lamp posts, bollards, etc.[237] In the case of single-family detached home (See: Figure 5.3) fences and hedges, particularly in the backyards, provide an instant demarcation of territories, without losing the gradual transition between different type of territories.[238]

Sometimes, symbolic territorial markers may even be literal symbols or architectural representations that are associated with a certain ethnic group. (See: Figure 5.5) In this case, the demarcation does not restrain an outsider from intruding to the territory; it does not imply that it is the property of someone else; but it informs the individual about the possession and/or appropriation of the public space of that territory, by a certain social group.

---

[236] Barlas (2006, 33)
[237] Newman (1972, 63), and also Lang (1987, 149-153)
[238] Lang (1987, 150)

Figure 5.5: Entrance of Chinatown in San Francisco

As can be seen, territorial markers are not only for proclaiming the borders of private and semiprivate spaces, but they can also be collective markers of semipublic or public spaces as well. In that case they also afford for the human needs in another way. As a matter of fact, Lang states that, *"if one is insecure in one's environment then a negative attitude toward oneself, one's environment, and one's capabilities manifests itself in negative attitudes (...)"*[239] In that sense, the territorial markers at semipublic and public levels, help the individual to develop a feeling of security in said environment. According to Barlas, this situation is referred to as 'the need for familiarity':

> *"People tend to look for familiar surroundings to maintain physiological and psychological safety/security. If considered in terms of hierarchical territories, one's own street, that is, the street they live in is the safest place, because they have a relative degree of control over its territories. Farther*

---

[239] Lang (1987, 153)

away from this immediate setting, others' territorial markers would indicate that they do not belong to that place.''[240]

From this point of view, public places act as a territory, where individuals can be present comfortably, in perceptual relation with others' territories, but not physically intruding them. The 'linear' configuration of the public street, through non-overlapping private and intermediate spaces attached to it, prevents territorial clashes.[241]

5.2.3.2 Behavior Setting

The relation between physical setting and human behavior can only be explained to a certain extent by using the concept of territories. It is useful to understand the basic mechanism of the process, but human behavior is much more complex than that. For the fundamental concern of the environmental designer, ecological psychology, which studies the patterns of behavior in relationship to their physical setting, provides the concept of 'behavior settings'.[242] All in all, one of the biggest reasons of all this construction activity going on around is to provide for some existing or potential set of human activities.

For the environmental designers, these set of activities can be referred to as *"activity systems"* composed of *"behavior circuits"*.[243] Behavior circuits is a concept, which is suggested to be important for architectural analysis and design, defined as *"people's behavior through the fulfillment of their everyday purposes at the scale of the room, the house, the block, the neighborhood, the city, in order to learn what resources - physical and human- are needed to support, enable or fulfill them.''*[244]

Barker took a step further and provided the conceptual framework called 'behavior setting' which is a stable combination of activity and place. Behavior setting consists

---

[240] Barlas (2006, 85)
[241] Barlas (2006, 86)
[242] Barker (1960)
[243] Lang (1987, 113)
[244] Lang (1987, 113)

of four components, which are: *"(1) a recurrent activity - a standing pattern of behavior (2) a particular layout of the environment - the milieu (3) a congruent relationship between the two - a synomorphy (4) a specific time period"*[245] According to this definition, in the occurrence of different 'standing patterns of behavior' at different times, the same physical setting, in other words the 'milieu', may provide more than one behavior setting.

Due to their different roles, individuals may occupy different parts of the behavior setting. As a simple example, the area occupied by the teacher in a classroom is different than the students, often times raised on a platform to provide greater control over other individuals.[246] The temporal aspect of the concept is explained with another example, where vehicular traffic on a street may be ceased for occasional events such as, block parties or open-air markets.[247] According to Barker, a behavior setting enables a human to achieve a 'multiplicity of satisfactions, which may also differ from person to person. The same behavior setting may enable different humans to fulfill needs from separate categories; on the other hand, it may meet different needs for the same individual at different times, as well.[248]

The boundary of a behavior setting is defined as the mark at which the behavior stops. Lack of clear and well defined boundaries may result in either insufficient or excessive segregation between activities. A few ways to resolve boundary problems are mentioned as physical boundaries, administrative changes or symbolic markers according to the necessary degree of segregation between behavior settings.[249]

5.2.4. Top of the Pyramid

So far the relation between needs and place has been discussed mostly through physiological needs. These needs have a certain priority in terms of fulfillment among others; thus they are located at the bottom of Maslow's hierarchy of need

---

[245] Lang (1987, 113-114)
[246] Lang (1987, 114)
[247] Barlas (2006, 34)
[248] Barker (1960)
[249] Lang (1987, 114)

represented in the pyramidal scheme. Nevertheless, the needs located at the top of the pyramid are also very important as well. These needs are not necessarily related to the physiology of human but they are rather psychological and/or sociological. In other terms, they are mostly based on face-to-face interactions and often times conducted in public places.

Belonging and love needs have a strong relation with place. The need to belong to a group or community can also be referred to as *"the need for identification of the self with others."*[250] Among public places, the semipublic and semiprivate places can also provide for the fulfillment of this need, from different perspectives. The public place is useful in this sense because it provide unlimited number of interactions. On the other hand, semipublic and semiprivate places provide fewer number of interaction possibilities, but they provide more 'controlled' interactions.[251] This can be regarded as a quantity/quality dichotomy, where the combinations of different situations provide even more possibilities of interactions. From the point of the environmental designer, the key aspect here should be considered as the proper gradation between different types of territories.

Another form of belonging is the need to belong to a place which, as the name befits, is a process, directly related to the physical and spatial components of place; and is also a nip-and-tuck process to belonging to a society. The outlook to this process is made through the concepts of space and place, and the transformation from former to the latter.[252] The two fundamental determinants of such transformation are 'appropriation' and 'attachment'. These terms are defined as follows:

> *"Appropriation is the process through which an individual or group of individuals claim the right to use a place. (...) The personalization of space by means of boundary markers and the arrangement of the objects inside this*

---

[250] Barlas (2006, 87)

[251] Barlas (2006, 87)

[252] The process of space-place transformation, from the point of view of Heideggerian ontology was already discussed in the previous chapter. Here the discussion is more about the psychological and sociological aspects. Nevertheless, both approaches may be kept in mind in order to beter understand the phenomenon.

space strengthen this claim. Attachment, on the other hand, refers to positive affective meanings associated with this space. A state of liking occurs toward the space and the individual or the group begins to identify them with it."[253]

The appropriation of and attachment to private space almost always happen intrinsically; where, public space by its nature cannot be personalized. However, it is possible that, the transformation of space to place occurs on public spaces. The appropriation of the public space can be explained in regard to its collective use. Private and intermediary spaces act as boundary markers in this case. Attachment to public space is achieved in terms of the fit between the self and society, the collective self.[254] Since university campus space, to a large extent consists of public spaces[255] the appropriation attachment processes must be taken into consideration with the utmost importance.

The next level in the hierarchy of needs is 'esteem'. Both self-respect and being respected by others are parts of esteem needs. The more one moves upwards on the pyramidal scheme of Maslow's hierarchy of needs, the harder it gets to relate the fulfillment of these needs to place. The factors involved in this process are various. However, the focal point of all these function seems to be the face-to-face relations. Like all the other socially fulfilled needs, esteem needs are also dependent of face-to-face interaction of the self with other. Thus, once again it is important to mention the crucial role of the proper gradation of territorial nesting.

Finally, the cap of the pyramid, 'self-actualization', seals the hierarchical arrangement of human needs. This category includes cognitive and aesthetic needs, as well as the highest level of humanitarian values such as, morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts, etc. Like the previous category, the needs in mentioned here are not directly afforded by the place, however, the place, especially public, and semipublic place, act as a medium that

---

[253] Barlas (2006, 88)
[254] Barlas (2006, 89)
[255] The private spaces on the university campus can be limited to dormitory rooms, and the lodgings and offices of the staff, which are actually in a sense assigned to their users temporarily.

absorb certain qualities from the society and afford it back to the society thorough the form of symbols. In this sense, even though it is often impractical to use the environment as a design tool for the fulfillment of said needs, the idea that the environment itself acts as a tool to associate the self with the society.

5.3. Summary of the Chapter

The relation between human and environment has been the field of research of behavioral psychology. The ecological approach to environmental perception studies behavior as an outcome of the needs and motivations of human, and the perceptual stimuli afforded by the environment. Hence, in order to understand the characteristics of the built environment, first, one needs to understand human nature.

The motivation for human behavior has been analyzed by Maslow, as a hierarchy of needs. According to him, humans aim to fulfill their needs according to their order of importance. Physiological needs, such as satisfying hunger and thirst are the most crucial ones, where psychological and sociological needs, such as self-esteem, intimacy, etc. are satisfied in such hierarchical respect. In order to fulfill their needs, humans are dependent on the existence of place.

Most of the needs in the psychological and sociological category of the hierarchy can be fulfilled through the process of socialization and face-to-face interactions. The number of possibilities for such interactions is at its highest level in public places. The concept of territory is explored in order to better understand the setting leading to social interactions. According to Oscar Newman's approach towards the subject, territories have a crucial role in human behavior and a clear hierarchical definition of territories, from public, to semipublic, semiprivate to private produce better possibilities of social interaction. Therefore, the physical demarcations defining territories and the organization of intermediary spaces, in a related manner provide fulfillment for human needs.

The last two chapters of this work have been an overall discussion about the concepts of place and society in the general context. In the next chapter, the notions covered so far will be discussed solely, in the context of university campus design and an outlook will be generated for developing policies that promote the optimum formation of place and social interaction in the university campus.

CHAPTER 6

POLICY

Almost everyone in our day has imagined themselves enjoying a simple country life at least once in their lifetime. Everyday lots of people, while they are swamped with the errands of their boring office jobs, take a break from the reality and dream about retiring and settling down in a nice and quiet place in the countryside. One may right away relate this common image to the nostalgia for the simpler times and lives. Especially in the 20th century scientific and technological developments have occurred so rapidly, the human nature is struggling to adapt. However, there is also another part of human nature which has not and will not ever stop to develop the accumulation of the knowledge, and the cities and everyday life will continue to shape according to these developments. In this sense, there seems to be a mere duality of search for simplicity and complexity in the human nature.

The modern city life obviously has a lot to offer, and plays an important role in the development of human civilization. Its ever present importance in the course of history reveals that it will also sustain in the future. The basic aspire of human to the country life seems to be at a more psychological level than sociological. The urban environment has a certain level of forced intimacy between its large numbers of inhabitants. In this case, the control of the human on their immediate surrounding is usually very limited. However, in the case of countryside environment, human has a greater control on the surrounding and even on the community through participation. Such settings are very convenient for the basic existential reaction of the human to the nature, in other words, 'dwelling on the earth'.

In the contemporary urban environment, the impact area of an individual is mostly limited to the inside of their own homes. However, most of the time of an average citizen is spent in the public sphere during their daily activities. Their inability to control the physical markers of the built environment causes distress and makes them seek the feeling of security in the private spaces they own, which are homes. On the other hand, the physical markers of the built environment in the public sphere are not solely controlled by a certain party. As a matter of course, there are certain authorities in every city which is responsible for the civil works of cityscape. However, the decision making process is still more complicated than that and each action is only a single move in the ever continuing process of shaping the built environment.

In regard to this situation, there are certain constituents that control the formation of the built environment in public and semipublic nature, which are policies. In order to sustain a successful development of the urban space, policy acts as set of rules to be followed in two separate extents, which are; (1) the different people or groups of people who shape and apply the policy, and (2) the timeline through which the formation of space perpetuate in a process. In most cases, especially in the public manner, the formation of space is an everlasting procedure. Policies are applied as phases of this process, in accordance with the cultural and social attributes.

The word policy immediately reminds one of 'politics' and it is indeed no coincidence. As a matter of fact, while politics can be defined as the science of government, policy is the way of managing said practice; both deriving from Greek *'polis'* which means city (or city state). However, in this research the concept of policy is not limited to its meaning in terms of politics, but discussed in a broader manner of any kind of set of rules put forward by any section of the society. Obviously, the political power is the biggest establisher of policies regarding urban space as well as any other social area, and its effects on space will be discussed in regard to the case of the Middle East Technical University campus, in this research. However, eventually the aim is to seek the traces for the designers of the environment, to develop their own policies and implement them as design tools that

enable them to reach out to the future process of the formation of space. In this regard, the discussion will continue with the case study.

6.1. Middle East Technical University

The history of universities in Turkey may be covered in two periods as pre-republic and republican. The commencement of the process may be dated back to the reign of the Ottoman Sultan Mahmud II, a vigorous reformist, who ordered the foundation of new medical and military schools. Thus, the first western-style higher education institutions in Turkey were established, respectively in 1827 and in 1834. Later on, the first university Darülfünun[256] was founded a few years later in 1846 and consisted of several different fields of study. Since then Turkish universities adopted their organizational and educational structures from the western world. Regarding the historical evolution of Turkish universities, it is observed that France, Germany, Austria and the United States have been influential in that sequence.[257] The French influence of the pre-republic period gradually faded into an Austrian-German influence after the World War I. Furthermore, the legal arrangement of 1933, where the word university was first used, adopted the Humboldt model, and in the same year 40 professors, who left Germany due to Nazi suppression, started teaching at the İstanbul University.[258]

The second radical change in Turkish universities occurred with the legislation of 1946 in which the university was redefined with scientific and administrative autonomy.[259] As from the 1950's, the university is not only regarded as an institution of education, but also a producer of economical and social development for its surroundings. Meanwhile, instead of the Humboldt Model, the American Entrepreneurial University Model was adopted. Throughout the 1950's, four new universities were founded in different regions of Turkey, within this framework. Middle East Technical University in Ankara, commonly abbreviated as METU, was

---

[256] Darülfünun literally translates as *"House of Sciences"*. The institution was renamed as Istanbul University in 1933.
[257] Kavili Arap (2010, 7)
[258] Kavili Arap (2010, 7)
[259] Kavili Arap (2010, 8)

one of these universities.[260] METU may not be the oldest or the most established educational institution in Turkey, but the philosophy behind its foundation and the qualities of the built environment of its campus have made it become immensely influential for the newly founded Turkish universities, which increased greatly in number since the 1970's. However, it is much debatable whether this inspiration included the philosophical background or it was just merely an affectedness of the physical image, especially considering the 41 new universities built hastily between 2006 and 2008. After all, at this stage the research will proceed with the analysis of the METU campus as a case study.

6.1.1. Environmental History of the METU Campus

The term 'environmental history' has been borrowed from Sargın, where he defined it as *"a vision of the modernization project."*[261] It is true that the young republic, having rejected the heirdom of the Ottoman Empire, was trying to develop its own set of values. The urban space has been an important tool in reaching this goal and the university was an essential milieu, since the future generations were going to be educated in there. Combining both facts tells us why METU campus eventually became a reference of the modernity project.

The foundation of METU dates back to 1956. This decade may be regarded as a paradigm shift in politics both in global and local terms. Globally, the world was experiencing what is called the post-war period, where policies were shaped in an attempt to recover from and prevent the reoccurrence of the destructive consequences of the World War II. The growing perception of the Soviet Union as a threat for the western world, urged the United States to take precautions. Two major steps in these terms are, the foundation of the North Atlantic Treaty Organization and effectuation of the Marshal Plan, as military and economical actions. Turkey and Greece were both regarded as under direct Soviet threat and were of interest of the political

---

[260] The other three are: Ege University in İzmir, Karadeniz Technical University in Trabzon and Atatürk University in Erzurum.
[261] Sargın (2008, 22). Also see: Sargın et al. (2013) for extensive discussion on the subject matter.

consensus of the western world. Both countries joined NATO in 1952 and benefitted from the financial aid provided by the Marshall Plan in the same period.

In the given political conjuncture, METU also emerged as a part of the United Nation's higher education programs and the policies of the United States concerning the region of developing countries.[262] Moreover, it comes as no surprise that the METU campus turned out to be an example of the typical American campus layout, developed thorough out the 19th century in the United States, which was already covered in the previous chapters. To start with, several locations were considered for the site selection, all of which were located not too far away but outside the center of Ankara city. This decision is quite compatible with the American campus design notion, which regarded it strongly in relation with the picturesque nature. Moreover, Savaş defines the common feature of the considered sites as 'tabula rasa' referring to the untouched nature of the Anatolian prairie.[263]

Besides the global parameters that shaped the decision making processes for the formation of METU, there are also strong impacts from the local context, as well. This impact is basically defined as follows:

> *"Attitudes towards nature have long been an important component of institutionalized politics in Turkey. For the Turkish state, taming the nature was regarded as part of Republican ideology, and that ideology had also been to be reflected in urbanization, becoming a common ground for the framing of the norms and standards of public life."*[264]

The 1950's in Turkey was also a decade of new formations and paradigm shifts in many fields. In the field of politics, Turkey was taking sides with the NATO countries in the polarized formation of the post-war world. In economics, new 'liberal' policies were adopted, accompanied by an industrialization thrust. The urban-rural population ratio of the whole country was rapidly changing in favor of

---

[262] Sargın et al. (2013, 79)
[263] Savaş (2008, 15)
[264] Sargın et al. (2013, 81)

the former, and the major cities suddenly became in need of new settlement areas. While the process for the foundation of METU was progressing, in the meantime, a new urban plan, by the name of Uybadin-Yücel Plan, was also being shaped for Ankara. In other words, the process of transformation of the barren land into built environment was taking place in both scales of Ankara and METU, and both took place as a reflection of the modernization project.

The site was finally selected for METU, a few kilometers to the west of the city, and the process started with the announcement of an architectural competition. The specifications dossier included an empty site plan only showing contour lines, and images of the vast prairie, which in Savaş's words *"horrified all the architects."*[265] (See: Figure 6.1) Questions directed to the jury such as *"Please provide information (façades, types) about existing buildings"* or *"existing road elevations"* were all replied as *"There are no existing buildings or roads on the site."*[266] All these phrases are repeated here in order to emphasize the untamed condition of the site, and the intention of producing a new 'place' by means of it.

Figure 6.1: "General Character of the Competition Area"

---

[265] Savaş (2008, 19)
[266] Savaş (2008, 19)

The architects participating in the competition were also clueless in terms of the architectural style they were supposed to create. In fact, the jury was not at all interested in the stylistic preferences or formal conventions. By the time the competition was on the agenda, the Faculty of Architecture and City Planning was already founded and operating in its temporary space, and the Dean of the Faculty G. Holmes Perkins and his assistant Thomas B. A. Godfrey were reporting to the Board of Trustees, for the new campus development plan. In this report it was advised that *"the first architectural elements earmarked for construction were neither academic units nor dormitories, but rather the central core-walks and arcades."*[267] The aim of immediate construction of pedestrian pathways, arcades and terraces was not only a functional concern to connect different buildings in the campus but rather an endeavor to create a symbolic entity for the new university community.[268] Moreover, same report emphasized the importance of site decisions, and regarded them essential for the creation of the desired community. It was mentioned several times that *"the spaces between buildings were as important as the design of the buildings themselves"* and *"priority was to be given to the design of the landscape rather than to the design of the buildings."*[269]

Eventually, Altuğ and Behruz Çinici signed a contract in 1961 to create the master plan and the Faculty of Architecture building as the first structure of the campus. Çinicis achieved the desired goals described by the advisors by the implementation of a main pedestrian walkway or as it is referred to, the alley. Other than connecting different facilities, the alley also had other crucial roles. Since the construction works of the new campus were conducted phase by phase over a period of several years, the alley acted as a regulating instrument through the construction process. More importantly, with its ingeniously crafted spatial qualities, the alley became a most significant element of the campus, which successfully transformed the 'untamed barren land' into a source of new society. The following years witnessed a diligent effort of construction of the rest of the buildings and forestation of the vast prairie by hand planting thousands of trees over 4500 hectares of area.

---

[267] Sargın et al. (2013, 92)
[268] Sargın et al. (2013, 92)
[269] Sargın et al. (2013, 94)

Figure 6.2: A portion of 'the alley' with academic buildings at both sides

The brief environmental history of the METU campus explicitly reveals its relation to all of the concepts discussed in this thesis. First of all, the 'taming of the barren land' which took place in the campus creation process, directly refers to the 'place' discussion. In Heideggerian terms, the building activity took place in METU campus can be considered in the framework of 'human dwelling on earth'. Humans reacted to the nature, the vast space of the barren land, and turned it into a place for their use, by means of the physical qualities of the built environment, and the countless possibilities of activities it created.

Secondly, as it is understood from the historical framework, and also clearly expressed in the writings of the founders of the campus, the objective of the campus design process is not only to build space for education activities, but also to create a new society, that will be the pioneers of the modernization process of the whole nation. In this sense, it should come as no surprise that the jury report for the architectural competition started with the statement: *"A University is a society; its purpose is to search for and disseminate truth and knowledge."*[270] The understanding of the founders of the campus was further explained as follows:

---

[270] Sargın et al. (2013, 94)

"The founders were well aware of the fact that the university would have an impact on the social formation of its students in ways beyond the teaching process itself. They believed that a sustainable university would answer in the affirmative and develop with success; otherwise it would create a complete community in itself."[271]

Finally, it can easily be claimed that the policies generated by either global or local actors have been the most decisive domain of change. In this case, the relation between nature and society is in fact a social process, and it is the politics that overshadow the interaction in between, in all aspects and at all levels. Politics, *"not only transform the environment, but also fabricate the cultural sphere within which such transformations become publicly possible."*[272] Not only politics shape the environment and the society, but also the environment creates its own society that shapes the politics, as well. Other than the thrust of the Turkish modernization desire, the METU Project combined the American campus design practices and the European Modernist principles. The result was neither all nor none, but a special community in the radically changing Turkish political climate of the 1960's. A community, which eventually became an essential source for the leftist intelligentsia; consisting of students, professors and staff, who regard political engagement and social responsibility with great importance.[273] At this point, present-day built environment of the METU Campus will be evaluated in terms of the abovementioned concepts.

6.1.2. Evaluation of the METU Campus

There are several different perspectives towards understanding the current physical setting of a campus area. However, this study does not have the aim of providing an overall analysis of the METU campus. Instead, the research will be based on the theoretical discussion so far covered in this thesis. Mainly, the case study will be focused around the three main concepts of the theoretical framework.

---

[271] Sargın et al. (2013, 94)
[272] Sargın et al. (2013, 80)
[273] Sargın et al. (2013, 98)

Figure 6.3: Initial site plan of the METU campus

Figure 6.4: Aerial photo of the current situation of the campus

First of all, some examples of space formation around the campus will be mentioned in terms of its relation to physical demarcations and human activities. After that, the social interaction potentialities provided by campus space will be analyzed in regard to the public / private nature of the space. Finally, the policies defined in the beginning of the design process will be reviewed and their success rate will be sought in the existing situation of current campus setting.

6.1.2.1. The Formation of Place

The procedure behind the formation process of a place is quite complicated, more complicated in the campus layout probably. Furthermore, in certain cases, the process may even be random, coincidental or irrelevant to the design discussion. However, based on the theoretical discussion presented in this thesis, it may be considered as a function of both physical setting of a space and the behavior patterns of the humans using it. In this sense, the subject refers to the concern of the designer of the campus, through the design of the built environment.

A few examples may be mentioned in regard to this frame of mind. As stated before, the founders of the METU campus were widely advised by experts in campus design from the United States. As a consequence of this, it came of no surprise that the METU campus bore resemblance to the picturesque campus model of the American campus design tradition. An important element of the American college is collegiate sports. Athletic competitions organized and funded by higher education institutions in the United States, have an important place in college community as well as American society. Other than athletic and entertainment purposes, collegiate sports also play an important role in appropriation and attachment of the students towards their educational institutions.

Just like a large number of American university campuses, the METU campus also includes a vast area of sports facilities, located in close proximity to the dormitory / accommodation area. The notable element of the sports facilities is obviously the stadium placed at a central location of the campus area. The tradition of building a

large sports venue at the heart of the campus seems to be borrowed from the American university. Soon after, many other universities in Turkey followed the METU case and built stadiums in their campuses. However, there is one difference in the Turkish situation, and it is a major one: There exists no organization of collegiate sports in Turkey.

The formation of place in this case takes a different track. The physical setting exists but the activity is missing. A few sports events are held at the stadium throughout the year but do not attract a full crowd. On the other hand, the most crowded times occur with other activities, such as concerts during the spring fest or the commencement day. In other cases, there is even not necessarily need for a formal activity, but students would just like to gather around there in their free time, because the curvilinear form of the grandstand brings forth a certain sense of co-presence, and become traditionalized. Besides, the visual entity of the stadium acts as a territorial marker, where at a university founded by the American tradition, a leftist intelligentsia appeared in a short time, expressing its traditional existence by the word 'revolution' painted and re-painted regularly on the grandstand.

Figure 6.5: People gathered in the stadium, with the word 'revolution' in the background

The front plaza of the Culture and Convention Center may be mentioned as another example of physical setting - human activity duality in the formation of place from the METU campus. In this case, the main entrance of the large building is situated in front of a small plaza which is defined by a circular amphitheatre shaped setting located along with the topography. The physical setting of the built environment suggests a potential activity of gathering together to observe a certain happening. However, the place is not formed in the regular setting, because the physical demarcations are supplying only one part of a intrinsically bipartite activity. The only time people are gathered in this specific place is when there is a focal point complementing the missing piece of the puzzle, when a performance stage is set up during the spring fest.

Figure 6.6: The front plaza of the Culture and Convention Center
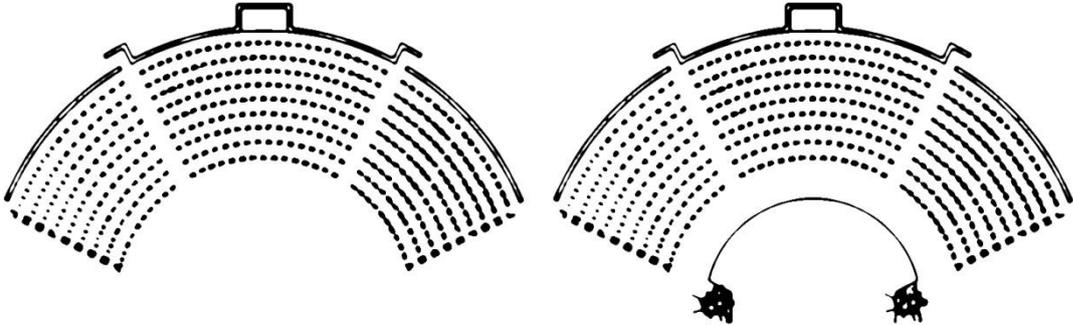
Figure 6.7: The absence/existence of the stage generates the activity

In many other cases, several 'places' shape on the campus site for what seems to be convenient reasons which people tend to accept in their minds that they are based on communal traditions of un known origin. What happens to be to the interest of the designer is that the order and variety created by the design process of the built environment, combined with the vast possibilities of activities conducted on the place, is the basic origin of certain behavior patterns that set up semi-mystical concept of traditions.

6.1.2.2. The Development of Society

It is by now several times mentioned that a university is more than just an institution of formal learning. Not only because research is also an essential component of the university concept, but also because the word 'education' connotes a broader meaning in the contemporary university. There are several different approaches to describe education, varying from basically receiving a systematic instruction, to a deeper interpretation as an enlightening experience. Education in a general sense includes the transfer of knowledge, skills and habits from one generation to the other. Referring to the previous discussions, education can also be regarded as an essential tool in creating the society, through the sharing of rituals. Naturally, place has an important role in this process:

> *"The ritual of socialization requires certain tools as all other rituals. The least that comes to mind is the common grounds enabling individuals to be together; not only to share and use the goods that sustain biological life, but also to make use of the opportunities provided by these settings to quench the thirst to become."*[274]

Even the very basic and ordinary settings of natural or built environment can produce these opportunities. Moreover, human beings have a tendency to regulate the physical/spatial components of their surroundings in order to be able to better

---

[274] Barlas (2006, 3)

practice such rituals.[275] If would be nonsense if the same tendency had not affected the approaches to the design of one of the most sophisticated products of human civilization, the university. From a more extended perspective, one may consider education as any kind of experience that has a formative effect on the human behavior. Such definition can also be related to the place discussion where it was considered as a figurative product of human experience and memories. Therefore, it would be reasonable to interpret place as a basic component of education.

What is the true nature of education, which enhances its description from simple transfer of knowledge to an enlightening experience? This appears to be a rhetorical question and its answer may be the subject matter of a separate research. In regard to the discussion of this thesis, it will not be claimed but mooted as an idea that; the capability of the campus to provide for the human needs, especially those related to the psychological and sociological aspects, might actually be the key element to enable the practice of education, in its extensive terms. In other words, the more campus can provide for the fulfillment of the needs in the belonging, esteem, and self-actualization categories, the better university can offer education, in terms of an 'enlightening experience' that forms the overall human behavior, rather than mere formal learning. In order to understand such capacity of the campus, one needs to look for face-to-face interaction possibilities and analyze the hierarchical arrangement of territories, between public and private spaces.

Considering the case of METU campus, it seems that there are not so many spaces which can be defined as properly public or private, but rather spaces of intermediary nature. First of all, entrance to the campus is strictly controlled by security staff and surveillance equipment, which means that only members and occasional guests of the university can visit the campus. Even, different zones in the campus are controlled separately, such that someone who visits the METU Teknokent is only allowed within the premises of that zone and is not granted access to the rest of the campus.

---

[275] Barlas (2006, 4)

Figure 6.8: Checkpoint at campus entrance

In this sense, the residential equivalent of the METU campus may be asserted to be the 'gated community'. Common features may be listed as *"totally isolated community, areal solution of territorial control"* and for face-to-face interactions *"community gathering area or exclusive public space."*[276] However, the campus differs since it does not bear dominant private character like the gated community. Instead, the large part of the campus can be considered public, but in a manner that it is exclusively for the use of the members of the related community. As a matter of fact, this may be considered beneficial in terms of appropriation and attachment of campus space. On the other hand, the majority of private spaces in the campus are of residential characteristics. Among these are academic staff housing, dormitories, guest houses, and offices. Houses obviously are the most private, where other facilities mentioned here offer certain levels of privacy among the organization of the spaces within themselves.

Essentially, the key elements of face-to-face interactions appear to be neither public nor private, but the intermediary spaces. In the METU campus, the properties of these spaces can be analyzed under three separate categories; the academic zone, residential and recreational areas, and the periphery. The main characteristic of the

---

[276] Engür (2013, 105)

127

academic zone is that it is organized alongside a main pedestrian pathway, the alley. The alley is the dominant landscape element and the spine of the academic zone, where the vehicular rode cannot penetrate it but loop around the zone and define its boundaries. By this way, the general structure of this zone is established based on pedestrian activity.

The alley, by its nature, can be referred to as the 'public street'[277] of the academic zone. It resembles a street because of its physical and functional properties. Physically, the alley is a linear, paved surface, running end to end, and functionally, the semipublic/semiprivate spaces of the buildings flanking at both sides connect to the public sphere through the alley. For its physical properties, the alley also shares the symbolic representation of the street, which was defined by Barlas as follows:

> *"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, but somehow we also fell that our salvation lies behind the door through which we exit this path.[278] (...) This metaphorical quality of the poetic image, in which the doors and the path become spatial expressions of life's beginning and end, suggest the presence of an archetype. (...) Moreover, almost all permanent or temporary human settlements exhibit features enabling us to make such an association between an archetypal symbol and its sign manifested in consciousness. This sign is the street."[279]*

In terms of the use of the space, relevant to the discussion, one needs to look into the existence of clear hierarchical arrangement of spaces from public to semipublic, semiprivate to private. Once again, it should be mentioned that there are no properly

---

[277] In fact, a more accurate denomination would be 'communal' instead of 'public'. The alley itself is an intermediary space, since the physical control of the campus restrains the public use of it. However, for the sake of the spatial analysis, the alley will be referred to as 'public' only in this certain framework and in its own context.

[278] At this point, it could be noted how Martin Heidegger also had defined in his own terminology that "Dasein is being-toward-death. We discover the meaning of our being as Dasein in the possibility of not-being Dasein, that is, in death. It is also this discovery that reveals to us our own freedom, for in the face of our imminent annihilation we must chose a life that justifies its own worth despite its necessary termination." (Palmer, 1994, 337)

[279] Barlas (2006, 53-54)

private spaces in the academic zone, but there are some spaces verging to that, depending on the educational processes. For example, considering the Faculty of Architecture, the studios are much more private spaces, compared to regular lecture halls. The students have their designated drafting tables and lockers, and they have access to the studios day or night. More importantly, the level of privacy of the space comes from 'appropriation' and 'attachment', which can be actualized in any of the academic buildings, based on past experiences and memories.

Figure 6.9: A design studio from the 1960's

As a matter of fact, almost all buildings display a pattern of transition between different levels of privacy, such that the space disperses in a gradual manner, from the entrance of the building to the deep corners of it. The real success is that the same transition is also achieved in terms of the buildings attachment to the public place, namely the alley. This is achieved through the use of some basic architectural elements, such as porticoes, canopies, patios, or simply through the change of paving material. Nevertheless, the real dexterity is that all these separate buildings are successfully connected to the public sphere without interfering with each other, by the virtue of linearity of the public landscape element, the alley. This layout provides a decent transition of spaces, and is consequently useful in creating good opportunities of face-to-face interaction and socialization.

Figure 6.10: Architecutral elements (On the left, a portico; on the right a change in the pavement material)
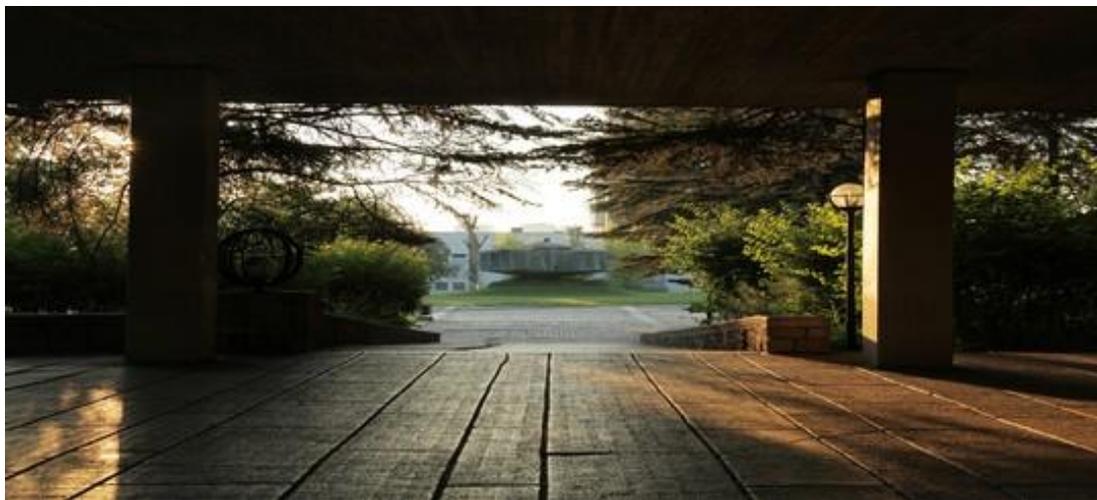
Figure 6.11: Architecutral elements (Patio)

The hierarchical arrangement of intermediary spaces is not only implemented in the academic zone, but also evident in the combined area of academic staff housing, dormitories, guest houses, and recreational facilities. It is not necessary to analyze and discuss the properties of each of the abovementioned facilities, since they display similar traces of territorial use. Nevertheless, the most remarkable setting among these is the academic staff housing.

First of all, the hierarchy of territories in the housing zone is almost a textbook example of single and multifamily houses, which were discussed by Oscar Newman

to be the very basic and intrinsic form of such arrangement.[280] (See: Figure 5.3) The houses, which are obviously the clearest examples of private space in the campus, consist of two stories, a private back yard, a semiprivate front yard, which is adjacent to the semipublic walkway connecting all the units together.[281] Furthermore, in accordance with the zoning principles of the initial project of the campus, the housing area is deliberately located in close proximity with the dormitories, sports areas, commercial and recreational facilities. In fact, this idea was already propounded by the founders before the commencement of the design process:

> *"This new development was called a 'university city', where education was not confined to teaching hours, but took place in nearby professors' homes, in student dormitories, on the playing fields and in the dining hall. The design should provide 'close contact between students and the faculty [staff] outside the classroom'. For this reason, residential, recreational and athletic facilities were given high priority."*[282]

Figure 6.12: Academic staff housing, inner street

---

[280] Newman (1972) and Newman (1979)
[281] Once again, the publicity/privacy of this environment should be considered in its own context.
[282] Sargın et al. (2013, 94)

In this regard it is no coincidence that the housing area was located together with other 'non-educational' uses. However, the current situation has not exactly turned out to be as it was desired. Today, there is little or no interaction between the users of the housing area and the adjacent public spaces, and this absence is caused by the spatial arrangement. Contrary to the initial policies, at some point the executive authorities should have decided to break the interaction possibilities between professors and students. Although, the locational arrangement of the different uses has not changed, the visual and perceptual relation has been exterminated by forming a buffer zone between the housing area and the general public spaces of the campus. This buffer zone simply consists of parking lots and/or green belts of tall trees. Once the territorial markers are established as such, few people who would want to walk in are restrained by the security staff and warned that students are not allowed to enter or take photos in the housing area, even if it is for their thesis research.

Figure 6.13: Large parking lot blocking interaction

A more apparent indication of such policy change is the location of the newer academic staff housing area, commonly known as ODTÜ Kent,[283] which evokes the image of a self sufficient and isolated neighborhood. When the capacity of the initial

---

[283] ODTÜ Kent literally translates as 'METU City'.

132

housing area did not suffice, ODTÜ Kent was built, but unlike the current settlement it was built at a distinct location of the campus, which brings us to the third and final discussion of this section, the building stock at the periphery. Without a detailed analysis at the moment, it could be argued that the territorial hierarchy of the spaces in this category is not as clear and successful as it is in the core of the campus. First of all, these buildings have no spatial relation with the public spine of the core, and even when analyzed in their own context, they do not display a gradual transition of different levels of privacy/publicity. An adequate example would be the dormitories located at the mentioned area, which are directly accessed through the main vehicular road, and fairly lack in terms of successful organization of intermediary spaces.

Figure 6.14: Dormitories located at the periphery

6.1.2.3. The Implementation of Policy

A university campus, not necessarily needs to be built in a historical period of many years, but still cannot be built overnight. A new founded university, especially if it is a large one, cannot start to operate at full-service from day one. This is also what happened in the case of Middle East Technical University. The commencement of education in different departments took place in a gradual manner, expanded over a few years after the foundation of the University. The same thing happened with the construction works of the buildings of the campus, as well. The majority of the

construction works for several buildings in the campus have been finished in a period of ten years, from 1963 to 1973.[284] The first building to be constructed was the Faculty of Architecture, which was already operational in its temporary place, as mentioned before.

Figure 6.15: Faculty of Architecture c. 1960's

Nevertheless, a university campus, just like any other urban environment, is never a finished job. The environment has to develop, outgrow, and change according to the necessities of the time. The METU campus also witnessed such development after its first burst of construction project. The original master plan of the campus was acquired by an architectural competition, and the later it was also decided that all the buildings in this scope would be designed by the same architect, Behruz Çinici, who had won the first place. Therefore, the main core of the METU campus exhibits a high level of harmony among buildings of different functions, since they were all designed by the same architect. However, it does not have to be applied to every other campus design project. Each building in the campus may be designed by a different architect in another situation. And it is very likely that necessities for new buildings will emerge throughout time, long after the initiation of the project.

---

[284] Kurdaş (2004, 108)

Actually, the consultants of the METU project were excepting a process where different building may be built by a number of architects, and still be in harmony with each other. That is why; the main concern was to generate a successful master plan that would guide the whole process with ease. In such cases, identifying the needs of the campus, and establishing an accurate long-term plan, gain utmost importance. The consultants were aware of this fact, and maybe it was the basic reason of the success of the METU campus, since they reported that *"the planning principles upon which the campus design was based would provide 'order with variety and continuity of growth for many decades to come'."*[285] At this point, eight different principles from the consultants' report will be quoted one by one[286] and evaluated in terms of their validity in the latest present situation of the METU campus.

> *"Concentration of the academic core within an area in which it is possible to walk from one end to the other in the 10-minute interval between classes."*[287]

Accordingly, in the original master plan, all academic buildings were clustered together, referring to the zoning practices of the early modernist planners, in a large area of approximately 400.000 square meters. All the buildings located in this zone, are flanked alongside a pedestrian walkway, the alley. The 'pedestrian campus' concept was already covered in the previous chapters, and according to specified information therein, average comfortable walking speed for adults is 4 km/h, and convenient walking time and distance in a campus is around 12-15 minutes and 800-1000 meters.

In METU campus, the academic zone is arranged in a longitudinal manner and the alley, from end-to-end measures about 1200 meters. According to given figures, the total length of the alley seems to exceed the limits of convenient walking distance for

---

[285] Sargın et al. (2013, 92)
[286] All mentioned principles henceforth which are from the consultants' report are quoted in Sargın et al. (2013, 92-93)
[287] Ibid.

a campus. However, specific peculiarities should also be taken into consideration in such evaluation. In this case, the sub level organization of the academic zone provides convenience. Such that, the departments of the same faculties or close disciplines are also located close to each other, and more importantly, the common functions that are used by everyone are located more to the center of the alley axis. This eliminates the possibility of the users to walk the alley end-to-end. In this consideration, it is possible to reach comfortably and conveniently from the center of the academic zone to either ends in less than ten minutes.

> *"Exclusion of automobiles from the central green and from the courts of each of the schools."*[288]

This principle also complies with the pedestrian campus concept. The introduction of vehicular transportation to the urban environment, made planners think about proper ways to deal with the frustrations it created. Different solutions to this problem were suggested, two of which are already mentioned in the previous chapters. One of them is the CIAM approach which argued that roads should be assigned to vehicular traffic and pedestrian activity should take place on open green areas. Another approach can be derived from Clarence Perry's 'neighborhood unit' concept, where he defined main vehicular roads also as boundaries that define the limits of the neighborhood area, and the roads inside the area should be accessible to vehicles to a minimal extent.

The organization of vehicular and pedestrian activities in the METU campus exhibits a combination of both approaches. The vehicular roads encircle around the whole academic zone and at the same time define the boundaries of it. All the buildings are vehicle accessible from the periphery. On the other hand, pedestrian activity is completely separated and takes place on the alley, which runs lengthwise through the spine of the whole academic zone. Moreover, obviating the criticism against the modernist vast open space, the alley is a well-defined place, which provides proper social interaction opportunities.

---

[288] Ibid.

"Reservation for all time of a system of open spaces which will provide convenient and pleasant walks throughout the campus, and which will be located so as to offer a variety of the views of the panoramas of Ankara and the surrounding hills and valleys- these greenways can give coherent form to the plan, and by so doing, permit the greatest freedom and diversity in the development of the adjacent buildings, even in places where the future needs cannot be predicted at this time."[289]

Similar to the previous principle, the importance of pedestrian activity is perhaps emphasized herein, in regard to the community discussion. Moreover, the pedestrian walkway defined in this statement is clearly considered as the dominant indicative element of the whole campus layout. Such that, the relation between the city and then distantly located campus is proposed to be provided by the visual connection to the pedestrian walkway. More importantly, it is also defined as the organizing element of the campus, which will be the frame of reference for the possible future construction activities.

The alley of the METU campus has been great success in this sense. The alley was designed as the spine of the whole academic zone, and the related buildings have been built in strong relation to it. However, the initial scope of works, in other words the vast number of buildings completed in the first ten years of the project, had already reached the capacity provided by this spine. In the following phases of the campus development, new necessities emerged.

One of these necessities is the 'METU Teknokent', a science park located in the campus including research and development facilities for several companies, especially operating in the high-technology industry. The spatial relation of the Teknokent to the core of the campus is strongly disassociated. However, a science park is a function that could not be foreseen in the conjuncture of the initial state of METU campus. Besides, the spatial and contextual discussion over the METU

---

[289] Ibid.

Teknokent case is a whole other issue and should be the subject of an exclusive research.

On the other hand, the subsequently constructed buildings of academic or accommodation functions display a pattern of disorder, in regard to the original layout of the master plan. While METU campus expanded, the relation between the alley and the building stock in the periphery weakened, and even vanished. Along with the need for new department buildings, the campus blobbed towards the southwest end of the main academic zone, and even a new cluster of dormitories was attached to this blob, alienated from the main activity zones of the campus.

In this regard, when the main spine of the academic zone reached its limits, instead of ambiguous individual attachments to the periphery, a bold extensive intervention for future prospects, harmonious with the philosophy of the original master plan, would have been more beneficial. The METU project is the product of a forward thinking group of visionary people. The qualities it produced should not be regarded from a narrow and radically conservative framework, but it should be able to be regenerated in a superior manner.

> *"Creation of a system of courts to provide protection against the weather between the many Schools and Institutes which make up the university; around these should be grouped activities that would benefit from close contact with one another."*[290]

This principle also seems to be an endeavor to promote the possibilities of social interaction. However, protection against weather does not solely produce such relations. The qualities of the space that achieve such an objective vary greatly, and often times not even related to the spatial features. However, the architect did create courts, especially in the initial buildings of the campus. These courts, for example in the Faculty of Architecture, are very useful in terms of providing natural daylight for the studios, but they do not necessarily function as the main interaction spaces.

---

[290] Ibid.

People tend to create spaces to interact based on several different factors. After all, the use of courts as architectural elements did not become a main concern in the design of the later buildings.

> *"Development from the center onwards."*[291]

> *"An immediate start to be made on the dormitories and provisions to be made for their maintenance, providing accommodation for 2/3 to 3/4 of the students at all times."*[292]

These two principles are in general related to the initial setting of the METU campus and cannot be evaluated in terms of the current situation. However, it should be noted that, a good planning of the campus development should start with determining the urgent needs of the campus, in other words the very basic functions necessary for properly operating of the institution until other construction works are completed. In this regard METU project could be considered a successful start up.

The numbers for the capacity of the dormitories should be evaluated by the conditions when they were set. A high capacity of dormitories was very important when initially METU campus was located in an isolated area, far from the city center or any other settlement. However, today the campus has been remaining within the city, and urban transportation possibilities provide more housing options for the students. According to information derived from the METU official web site, currently the total capacity of dormitories is a little less than 7000 people, which makes approximately 1/4 of the total number of students. Nevertheless, the same source reports that all accommodation requests are ably met in given circumstances.

On the other hand, the real problem about dormitories is the spatial arrangement of the new ones. In the original project the dormitory zone is a part of the larger area of non-educational functions, including academic staff housing, sports and cultural facilities, leisure activities, etc. This part of the campus was designed similar to a

---

[291] Ibid.
[292] Ibid.

small town, to provide a proper social life in the middle of the Anatolian prairie. However, some of the later built dormitories located at the distant southwest end of the campus are neither related to the main social activities zone nor they can provide space for such activities in their own whereabouts.

> *"Enhancement of the character of the site and preservation of views of the Citadel, Ankara and the hills."*[293]

This brief expression seems to be simply related to an endeavor to associate the identity of the METU campus to Ankara City. It was already mentioned several times that, the character of the site was cultivated out of untamed barren land and the location of the new campus was fairly outside the city center. So the basic urge to establish a visual connection with the city and its elements, namely the Citadel, is easily understandable. Nevertheless, the real idea behind such association is in fact much more complicated. Once again, it should be emphasized that, the METU campus was conducted as a part of the Turkish modernization project of the young Republic. Another component of this project was the city of Ankara itself.

About three decades earlier than the METU campus, Ankara City Plan was developed by German architect and urban planner Hermann Jansen. Baykan Günay points out to the fact that in the usual European practice, a commercial zone spontaneously develops around the train station, and Jansen obviously had the same idea when he connected the central station to the city center with what is now known as the Station Avenue. However, railway transportation has never been as dominant as in the European cities, and Jansen having noticed this, reconsidered the valley bottom running between the Station and the old city center to be a part of a green system, with a number of sports facilities located on it.[294]

Some of the facilities built in Jansen's green belt are the Youth Park, a stadium, a racecourse for horse racing and a parade float for official ceremonies. Günay also argues that Jansen considered all these facilities to be in strong relation with the

---

[293] Ibid.
[294] Günay (2006)

140

Ankara Citadel, not in a functionalist outlook but as a visual integrity.[295] In fact, the Stadium, Racecourse and Ceremonial Tribunes, designed by the Italian architect Paolo Vietti-Violo, are all located in a manner that they are oriented towards the vista of the Citadel. In this way, the horse races, sports games and official ceremonies would be conducted in front of the picturesque and monumental background composed by the old city of Ankara.

Figure 6.16: Vietti-Violo's Racecourse and the Citadel in the background

In this regard, it should be no coincidence that the consultants mentioned establishment of a visual relation with the Citadel. Perhaps, they had already experienced such visual association in the abovementioned facilities. Indeed, the academic zone and the alley are located on a ridge in the campus landscape which provides an instant visual connection with the surrounding environment. However, the Citadel is not close to the METU Campus area as much as it is to Vietti-Violo's structures. Therefore, it was not possible to obtain an impressive image of the Citadel, as in the case of Jansen's design. As a matter of fact, that relation has also weakened since 1960's. The Racecourse was demolished, leaving its area obsolete, and other unelaborated construction works in the neighborhood intruded the existing

---

[295] Günay (2006)

vista. As for METU, it is not directly related with the design of the campus area, but the surrounding hills transformed into urban texture due to the growth of Ankara.

> *"The use of local materials of a limited range of colour, which will weather well, such as the local stone for retaining walls. Avoidance of excessive mechanical equipment; and protection of the building against the hot sun and cold winter winds."*[296]

The last one of the principles to be mentioned in this discussion is about the physical and technical aspects of the campus buildings, while giving hints about the future stylistic expression of the campus buildings, as well. The first building designed by Altuğ and Behruz Çinici in the Campus, the Faculty of Architecture building, concretized the stylistic vision. 'Concretization' could be considered a literal description, since the main material used for construction was exposed concrete. This construction method was never seen before in Turkey and was reacted with doubts and disapproval. Yet, having received full support from the Rector Kemal Kurdaş, Çinicis successfully achieved to conclude construction works for a large number of buildings, in a short time.

After the realization of the initial stage of buildings in the original master plan, the campus displayed a harmonious and distinctive expression of architectural style. Other than the exposed concrete, materials used commonly in campus included, red brick, autoclaved concrete, aluminum glazing used in large glass façades, local stones, travertine, etc. This application helped campus gain an instant and strong identity, in terms of its built environment. It should also be noted that, some of the buildings designed afterwards imitated the original architectural style, while some of them introduced dissimilar expressions. Especially, buildings located outside the central core of the campus, including all of those in the METU Teknokent, have displayed totally different visual quality.

---

[296] Ibid.

CHAPTER 7

CONCLUSION

The general discussion of this thesis has been so far propounded in its initially defined framework, including historical and theoretical perspectives and the study to understand their reflections in the built environment. The text introduced in this thesis is not claimed to be a generic accumulation of knowledge, covering the whole of the study subject. Instead, it is intended to present certain sections of the immensity of the general literature, but in a way that these specific sections are discussed together to provoke new ideas and outlooks. In this sense, the design of the discussion throughout the whole thesis has aimed to produce a variety of combinations of the selected concepts regarding to the practice of university campus design process. As a final approach, the thoughts revived by these combinations will be concluded and summarized in brief ultimately.

The history of the university is the initial concern of this research and considered an important part of the design process. The philosophical, theoretical and traditional backgrounds of the institution should be understood well enough for a better mastery over the process. There is a certain relationship between the place and the institution itself, which is conducted over the behavior patterns of human. This whole mechanism is operating in its all complexity today, and it has been operating in the past, as early as the foundation of the institution. The university, one of the most important constituents of high civilization, was based on liberal thinking and shaped by this course of relationships.

The developments in the civilization are not sudden or exclusive, but it is a systematic transfer and accumulation of the generated knowledge. The university succeeded to be the home of such development. Contemporary university is the product of this development, and it continues to bear the values of its founding ideology. Obviously, the evolution of the universities is an ongoing process, as well as the evolution of its space. The campus space has witnessed several different design approaches through its course of history. However, the evolvement is achieved by the effect of changing human behavior patterns over the place, and the place is shaped by these changes. Concordantly, the tendency of the designed environment to shape according to different times and terms provide a spatial quality in the campus setting.

Related to the same discussion, a professional involved in the practice of university campus design, should study profoundly the architectural history of the campus, from its origins in the medieval ages to the contemporary executions. As previously mentioned in this thesis, the formation of campus space has taken place in accordance with the needs of each different society, the geographical and periodical variations. The major break points in the evolution process of the campus space, and the reasons and factors behind these changes should be understood by the designer. Also, the long-established institution and their capability to comply with the ever-changing circumstances should be a source of inspiration. The designer of the university campus, not only needs to understand the yesterday and today of the medium they are dealing with but also its varied possibilities of future alterations. The contemporary campus has been a model of the urban environment and the concerns of its design cannot be considered separately.

At the beginning of this study, the main problem was defined at two levels, one being the universal discussion regarding university campus design practices and the other dealing with the specific situation observed in the Turkish cases. By this way, it is aimed to grasp an overall understanding in possible design issues in the future. In order to understand and analyze the problem fairly, the main concepts are introduced to the discussion and a theoretical framework is constructed on these concepts. The

framework is regarded crucial in order to understand the nature of the problem because they are also the influencing elements of the relationship between institutional aspects and philosophical background of the university conception. In other words, the ultimate success of the university in forming the civilization has been achieved as a function of such concepts as; space, place, human behavior, social interaction, policies and the interrelation of all these in the university campus setting.

From the theoretical discussion of place covered in this research, the designer of the environment should generate an outlook towards the functioning of this mentioned relationship. It is very important and useful to extensively comprehend the process of the formation of place, in any sort of design problem. It is even more useful to understand that the user of the environment is equally a part of this process as the designer. Since, in all this complex structure human is the key figure in forming the network of relations between different concepts, the designer could find approaches to use this figure in favor of achieving the desired goals of the design problem. This should remind one, of the famous motto of ancient Greek philosopher Protagoras: *"Human is the measure of all things."*

If proceeded in the same direction, the next concern of thought should be the relationship between human and other humans, in other words the members of the society. This society discussion has an important place in the university campus design research because one of the most important peculiarities of universities is that they are essentially communities. As mentioned in the beginning of this section, the foundation of the university in the middle ages is established on the asset of community. After many centuries the sense of community plays a very important role in the university, as well as the role of university in the whole society.

The theoretical discussion on society included in this thesis is not claimed to be an extensive research in the area. Indeed, there is a very immense literature regarding this discussion, which could be useful for further exploration. However, it is thought to be useful to cover a brief summary of the related field in regard to its relation with the spatial aspects of the discussion. In this sense, it is important that the different

motivations shaping the human behavior are taken into consideration by the designer of the environment and approaches and tools are developed in the practice of university campus design.

Finally, the essential means of design in order to achieve the desired university campus space is asserted to be policies. University, due to its essential role in the society as mentioned several times before, is in the sphere of interest of many different components of the decision making process. All of these components are somehow aware of the power of spatial qualities of the campus and are willing to involve in the decisions regarding it. From the collision of different thrusts forms a process of spatial formation. The regulating element of this process is the policies generated by the parties. In this sense, the designer of the university campus should consider the design process not simply a production of architectural, urban or landscape design projects, but should approach it as understanding the social milieu, the political climate and the policies implemented, and essentially propose a strong policy which is based on a philosophical background and theoretical framework.

All in all, it should be clearly noted that there is no rulebook or operating manual when it comes to design problems. The procedures of creative activity have not been understood completely, not yet anyway. All we know is that even the design process feels like it happens mysteriously, better results are achieved when the 'mystery' is supported by strong pillars of critical thinking.

REFERENCES:

Athens Charter, (1973) *"Le Charte d'Athènes"* trans. by Anthony Eardley. Grossman Publishers, New York.

Barker, Roger (1960) Ecology and Environment. in Stephen Friedman and Joseph B. Juhasz, eds., Environments: Notes and Selections on Objects, Spaces and Behavior. Brooks/Cole, Monterey, Ca. 50-69

Barlas, Adnan (2006) Urban Streets & Urban Rituals. METU Faculty of Architecture Publications, Ankara.

Barlas, Adnan (2012) Komşuluk Birimi. in Kentsel Planlama Ansiklopedik Sözlük, ed. Ersoy, Melih. Ninova Yayınları, İstanbul.

Chermayeff, Serge and Tzonis, Alexander (1971) Shape of community: realization of human potential. Penguin Books.

Choay, Françoise (1969) The Modern City: Planning in the 19th Century. George Braziller, New York.

Coulson, Jonathan; Roberts, Paul and Taylor, Isabelle (2011) University Planning and Architecture, The Search for Perfection. Routledge, New York.

Cram, Ralph Adams (1909) Princeton Architecture. The American Architect, 21 July 1909.

Duke, Alex (1996) Importing Oxbridge: English Residential Colleges and American Universities. Yale University Press, New Haven.

Engür, Özge (2013) Spaces of Communication in High-Rise Residential Buildings. Unpublished Master's Thesis. Middle East Technical University, Department of City and Regional Planning. Ankara, Turkey.

Erçevik, Begüm and Önal, Feride (2011) The Usage of Social Areas in University Campus Systems. Megaron Journal, 6(3). Yıldız Technical University.

Ersoy, Melih ed. (2012) Kentsel Planlama Ansiklopedik Sözlük. Ninova Yayınları, İstanbul.

Frampton, Kenneth (1974) On Reading Heidegger. in Oppositions 4, October 1974 ed. Eisenman, Peter; Frampton, Kenneth and Gandelsonas, Mario. Wittenborn Art Books, New York.

Frampton, Kenneth (1983) Towards a Critical Regionalism: Six Points for Architecture of Resistance. in The Anti-Aesthetic. Essays on Postmodern Culture ed. Foster, Hal, 16-30. Bay Press, Port Townsend, Washington.

Graves, Frank Pierrepont (1970) A Student's History of Education, Our Education Today in the Light of Its Development. Greenwood Press, Publishers, Westport, Connecticut.

Goffman, Erving (1963) Behavior in Public Places: Notes on the Social Organization of Gatherings. The Free Press, New York.

Goffman, Erving (1966) Interaction Ritual: Essays on Face-to-Face Behaviour. Penguin Books.

Günay, Baykan (1988) History of CIAM and Team 10. METU Journal of Faculty of Architecture, 1988 (8:1). 23-44

Günay, Baykan (2005) Skyframe (Gökkafes) in İstanbul: An Ontological Assessment. Journal of Urban Design, Vol. 10. No. 1, 111-132, February 2005. Routledge.

Günay, Baykan (2006) Tmmob Mimarlar Odası Ankara Şubesi, Ankara'nın Geleceğini Tasarlamak, Cumhuriyetin Başkentinde Kültürün Geleceği: Atatürk Kültür Merkezi Alanı. Panel, 7 Nisan 2006.

Günay, Baykan (2007) Gestalt Theory and City Planning Education. METU Journal of Faculty of Architecture, 2007 (24:1) 93-113

Günay, Baykan (2009) Conservation of Urban Space as an Ontological Problem. METU Journal of Faculty of Architecture, 2009 (26:1) 123-156

Günay, Baykan (2012a) Atina Bildirgesi. in Kentsel Planlama Ansiklopedik Sözlük, ed. Ersoy, Melih. Ninova Yayınları, İstanbul.

Günay, Baykan (2012b) CIAM – Uluslararası Modern Mimarlık Toplantıları. in Kentsel Planlama Ansiklopedik Sözlük, ed. Ersoy, Melih. Ninova Yayınları, İstanbul.

Hall, Peter (1988) Cities of Tomorrow, An Intellectual History of Urban Planning and Design in the Twentieth Century. Basil Blackwell, Oxford.

Hawking, Stephen (1988) A Brief History of Time: From the Big Bang to Black Holes. Bantam Books, New York.

Heidegger, Martin (1962) Being and Time, trans. by J. Macquarrie and R. Robinson. Harper and Row, New York.

Heidegger, Martin (1971) 'Building Dwelling Thinking', in Poetry, Language, Thought, trans. by A. Hofstadter. Harper & Row, London. 143-161.

Heidegger, Martin (1971) 'The Thing', in Poetry, Language, Thought, trans. by A. Hofstadter. Harper & Row, London. 163-186.

Hızır, Nusret (1981) Felsefe Yazıları. Arpaz Matbaacılık Tesisleri, İstanbul.

Kavili Arap, Sultan (2010) Türkiye Yeni Üniversitelerine Kavuşurken: Türkiye'de Yeni Üniversiteler ve Kuruluş Gerekçeleri. Ankara Üniversitesi SBF Dergisi, 65-1

Kenney, Daniel R.; Dumont Ricardo and Kenney, Ginger S. (2005) Mission and Place: Strengthening Learning and Community through Campus Design. Westport: Greenwood Press.

Kortan, Enis (1981) Çağdaş Üniversite Kampusları Tasarımı. Orta Doğu Teknik Üniversitesi, Ankara.

Kurdaş, Kemal (2004) ODTÜ Yıllarım "Bir Hizmetin Hikayesi". ODTÜ Yayıncılık, Ankara.

Lang, Jon (1987) Creating Architectural Theory: The Role of the Behavioural Sciences in Environmental Design. Van Nostrand Reinhold, New York.

Le Corbusier (1929) The City of To-Morrow and Its Planning. Dover Publications, Inc. New York.

Le Charte d'Athènes (1943) - See: Athens Charter (1973)

Lozano, Eduardo E. (1990) Community Design and the Culture of Cities: The Crossroad and the Wall. Cambridge University Press.

Lynch, Kevin (1960) The Image of the City. The M.I.T. Press, Cambrige.

Marrou, Henri Irénéé, (1982) A History of Education in Antiquity, (translated from French by George Lamb). The University of Wisconsin Press

McCormick, Patrick J. and Cassidy, Francis P. (1953) History of Education, A Survey of the Development of Educational Theory and Practice in Ancient, Medieval, and Modern Times. The Catholic Education Press, Washington D.C.

Mumford, Eric (2009) Defining Urban Design, CIAM Architects and the Formation of a Discipline, 1937-69. Yale University Press.

Mumford, Lewis (1961) The City in History. New York, Harcourt, Brace & World.

Newman, Oscar (1972) Defensible Space: Crime Prevention Through Urban Design. MacMillan, New York.

Newman, Oscar (1979) Community of Interest. Anchor, New York.

Nişanyan, Sevan (2009) Sözlerin Soyağacı, Çağdaş Türkçenin Etimolojik Sözlüğü. Everest Yayınları, İstanbul.

Norberg-Schulz, Christian (1971) Existence, Space and Architecture. Praeger Publishers, New York.

Norberg-Schulz, Christian (1980) Genius Loci, Towards a Phenomenology of Architecture. Rizzoli International Publications, New York.

Norberg-Schulz, Christian (1988) Architecture, Meaning and Place: Selected Essays. Rizzoli, New York.

Orvell, Miles and Meikle, Jeffrey L. (2009) Public Space and the Ideology of Place in American Culture. Rodopi B.V. Amsterdam, New York.

Palmer, Donald (1994) Looking at Philosophy, The Unbearable Heaviness of Philosophy Made Lighter. Mayfield Publishing Co., USA.

Pastalan, Leon A. (1970) Privacy as an Expression of Human Territoriality. in Pastalan, Leon A. and Carson, Daniel H. eds. Spatial Behavior of Older People. Institute of Gerontology, University of Michigan - Wayne State University, 88-101.

Porteous, J. Douglas (1977) Environment and Behavior: Planning and Everyday Urban Life. Addison-Wesley. Reading, Massachusetts.

Rüegg, Walter gen. ed. (1992) A History of the University in Europe. Cambridge University Press.

Sargın, Güven Arif (2008) Modernleşme Projesinin bir İmgelemi Olarak Bozkır Deneyimi: ODTÜ Yerleşkesinin Çevresel Tarihine Giriş. in Ayşen Savaş ed. ODTÜ Mimari Projeler 1: Yarışma Projeleri 2000-2008. Orta Doğu Teknik Üniversitesi, Ankara.

Sargın, Güven Arif and Savaş, Ayşen (2013) 'A University is a Society': An Environmental History of the METU 'Campus'. in The Journal of Architecture, Volume 18 Issue 1, 79-106. Routledge, London.

Savaş, Ayşen (2008) Üniversite Sosyal bir Topluluktur. in Ayşen Savaş ed. ODTÜ Mimari Projeler 1: Yarışma Projeleri 2000-2008. Orta Doğu Teknik Üniversitesi, Ankara.

Sert, Josep Lluís (1942) Can Our Cities Survive? The Harvard University Press, Cambridge, MA.

Sharr, Adam (2007) Heidegger for Architects. Routledge, London and New York.

Smithson, Alison (1974) How to Recognize and Read Mat-Buildings. Architectural Design, no. 9, 573.

Steele, Fred (1973) Physical Settings and Organizational Development. Reading, Mass. Addison-Wesley.

Timur, Taner (2000) Toplumsal Değişme ve Üniversiteler. İmge Kitabevi, Ankara.

Tanilli, Server (1999) Uygarlıklar Tarihi. Adam Yayınları, İstanbul.

Tekeli, İlhan (2003) Dünyada ve Türkiye'de Üniversite Üzerinde Konuşmanın Değişik Yolları. Toplum ve Bilim Dergisi, 97.

Turner, Paul V. (1984) Campus: An American Planning Tradition. The MIT Press, Cambridge, Massachusetts.

Unwin, Simon (1997) Analysing Architecture. Routledge, London.