THE BOULEVARD AS A COMMUNICATION TOOL; ATATÜRK BOULEVARD

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ABSTRACT

THE BOULEVARD AS A COMMUNICATION TOOL; ATATÜRK BOULEVARD

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The main concern of this thesis is examining the affects and causes of traffic oriented design on the social generation of boulevards in terms of communication. For this purpose, boulevard concept and its historical evaluation are explained. In addition, communication is used as a tool for understanding, combining and examining the social and technical structure of boulevard.

In this respect, this thesis aims to explore the boulevard concept with the spatial communication measures. To provide empirical evidence, a chart of categories of communication is prepared in terms of human and machine interposed aspects of communication. The activities of relation along the boulevard are examined by transversal and longitudinal movements with the help of the behavioral sciences and proxemics and the theoretical relation between boulevard and communication is applied on the case of The Atatürk Boulevard, Ankara. It is observed from the findings that, longitudinal movement prior to situated activity is increased, the transversal movement prior to random activity is decreased. This causes the loss of human aspects along the boulevard, which is designed for human.

Keywords: The Boulevard, Communication Theory, Proxemic, Atatürk Boulevard

ÖZ

BİR İLETİŞİM ARACI OLARAK BULVAR; ATATÜRK BULVARI

Berk Kesim
Yüksek Lisans, Kentsel Tasarım, Şehir ve Bölge Planlama Bölümü
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Tezin temel konusu, artan trafiği hızlandırmak adına yapılan mekansal düzenlemelerden dolayı, bulvarın bir iletişim aracı olarak maruz kaldığı etkileri tartışmaktır. Bu amaçla öncelikle bulvarın tanımı ve tarihi gelişimi açıklanmış ve iletişim bir araç olarak kullanılarak bulvarın sosyal ve teknik yapısı incelenmiştir.

Bu açıdan tez, bulvar kavramının mekansal bir iletişim aracı olma özelliğini incelemiştir. Bu deneysel kuramı kanıtlamak için, iletişimin insan ve araç arasındaki ilişkisini de içeren bir tablo hazırlanmıştır. Bulvar üzerindeki ilişkinin niteliği, enlemsel ve boylamsal hareketliliğin kullanımı, ayrıca davranış bilimleri ve proksemiklerin (mekanın yönlendirdiği iletişim) yardımıyla belirlenmiştir. Bulvar ve iletişim arasındaki teorik ilişki ise Ankara Atatürk Bulvarı örneğinde uygulanmıştır. Bulgulardan yola çıkılarak, temelde amaç odaklı bir eylem içeren boylamsal hareketliliğin arttığını; temelde tesadüfi bir eylem içeren enlemsel hareketliliğinde bu artışa oranla azaldığı görülmüştür. Bu durumda da insanlar için yapılmış olan bulvarlarda insan faktörünün öneminin azaldığı sonucuna varılmıştır

Anahtar Kelimeler: Bulvar, İletişim Teorisi, Proksemik, Atatürk Bulvarı

To my mother..

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Lastly, I would like to thank to my family; Mert Atay, Cenk Atay, Mehmet Atay and Asuman Atay for their encouragement and support. I thank to my father for his support. I would like to thank faithfully to my love, Arzu Doğan what a magical coincidence to see you in my life. I cannot dream without you. Finally, and most importantly, I would like to thank to my mother Ayten Kesim, she bore me and support me in every part of my life. I cannot breathe without you. *Thank you very much; I cannot see the line without all of you*.

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INTRODUCTION

1.1. Scope, Purposes, Objectives & Questions

The scope of this thesis is to define the boulevard concept in terms of communication aspects. The main subject is identifying, defining and explaining the boulevard with using spatial communication measures. When communication and boulevard are integrated, the study will benefit from the behavioral environmental definitions, territorial and proxemical explanations. The thesis will develop an empirical model to demonstrate the communication with using the movement activities along the boulevard and, finally it will test the model on the case study, namely the Atatürk Boulevard.

The study comprises the general boulevard definition. It mainly examines the activity inside the boulevard. The activity along the boulevard affects the whole urban macro form, and specific to every city. So, the main framework of the thesis is restricted to the interior activity along the boulevard. In the case study, a specific example will be examined.

The purpose of the study is reaching the boulevard definition with categorizing it in terms of social aspects. Reaching the true definition of boulevard, categorizing the social interactions, and understanding these interactions with the movements and behaviors are the sub purposes of this thesis. So, communication gains a critical role when understanding the boulevard.

In terms of planning; communication is to be separated into two. They are; human to human communication and human to environment communication. Planners could only intervene the physical spatial features of the environment and they could make these interventions according to the examinations, observations and experiences from the affects of environment on human. In other words, they can only intervene to the spatial features, which form the societies. So, it is important for a planner to understand the primary dynamics between human to human and human to environment. Because of this reason, the thesis explains the boulevard concept with using communication. The thesis tries to develop spatial meanings of communication. The movements, behaviors which are derived from the spatial meaning of communication will help planers to understand social relations on space. In other words, this thesis tries to develop a model for understanding the social dimensions of boulevard with using physical clues of movement. The boulevard as the communication artery of city includes different type of communication activities. Thus, this thesis concentrates on explaining the boulevard concept and its evaluation through the history with the help of communication theory. Another purpose of this thesis is reaching the spatial consequences which are drawn with social aspects. Author believes that, this perspective has a great importance on planning and urban design.

The linearity of boulevard and its physical presence on the layout of the urban macro form is the main artery of the city. Some of the cities are established around the boulevard, some of them implement it by demolishing the medieval walls along the route of boulevard, and also some of the historical ones were only surrounded with the natural landscape. Since it was established for the first time, boulevard is one of the biggest communal spaces of the urban form. In the city as a place of continuing social life, boulevard is serving the biggest opportunities for interaction of the communities.

Understanding the boulevard in terms of communication helps planners discover the social aspects of life. Beyond the boundaries of physical space, city is designed for

human being who has social implicating in space. The changes in the physical environment have great affects on social interaction mechanism of the city. In addition, space is designed for societies. Defining communication with spatial terms, and the developments in understanding of the nature of social being, guides planners in solving the problems of urban social life. This is the planner's interventions core and objective to construct a place, which has social implication rather than creating an environment that includes just physical.

Methodologically, it is appropriate to divide the thesis into two parts. These are *spatial evaluation of boulevard* and *concept* of *communication.* The main argument is, first of all, based on the relation between boulevard and communication. After accepting this connection, it becomes compulsory to identify the boulevard as a communication mechanism (if it is?). Then, historical review of boulevard, which identifies the general specifications of boulevard, should be taken into consideration. Besides this, in the other section, boulevard will be defined by pointing out how it differs from streets and avenue. It is also questioned that "What is boulevard?" and "What is the difference of boulevard from road, avenue or street?"

The unique attributes of boulevard (being a ritual ceremonial route) will guide us to categorize it with the help of using the categories of communication. In addition to other questions, it should be answered that "Is the boulevard a communication artifact?" If yes," What kind of categories of communication is acted along the boulevard?"

The literature review is concentrated on the combination of communication with spatial features of the boulevard. For this purpose, the communication is categorized in terms of urban activities. The thesis is intended to see human as pedestrian and also as communicator and links it with the boulevard concept which is accepted as a social communication tool. The categorization of human participation to the communication activities is taken into account. The important point here is the human's behavioral responses to actions on the boulevard. The behavioral responses

and activities are categorized in accordance to the categorization of communication. Then, these responses to the spatial definitions will be defined as movements according to the proxemical configurations. So, this thesis associates the human activities and movements to the communication. This association helps us examine and measure the social generation of the urban spaces. The boulevard is examined in terms of using these inferences. The main objective of the study is identifying the social aspects of boulevard (if it is social?) with spatial inferences.

The thesis focuses on the affect of increasing vehicular traffic and the spatial configuration for the purpose of traffic management. The main question of this thesis is "what are the affects and causes of traffic oriented design on boulevards?" The urban space as it is designed for human is attained to the transportation with vehicles. It is accepted that the use of the vehicles is compulsory for a dense urban macro form to sustain the required exchange of goods and services, but the ongoing usage of vehicles has made pedestrians abandon social spaces which are designed for them. This thesis aims to understand the reasons and affects of this change on urban environment. The boulevard as the main artery of the city will be examined under the influence of the increasing traffic and these influences on urban social life will also be analyzed on a case of our nearby history. For this purpose, The Ankara Atatürk Boulevard is chosen for the case study.

In Ankara, the Atatürk Boulevard became an important transportation artery in 1960s. But as time passing, the situated regulations on the boulevard have changed its concept and have caused it to change its concept. For instance, the last interventions on the boulevard were oriented to increase the density of traffic. On the other hand, the interventions were decreasing the use of pedestrians. According to the theoretical findings, it is examined that how these traffic oriented interventions affect the boulevard.

This thesis examines the affects and causes of traffic oriented design to the social generation on boulevards in terms of communication. The methodology of testing

the social generation is based on the communication that is the unit interaction of social relations. The categorized communication that is mentioned in the chapter 3 will help us to define the social, less social and non-social categories of communication. In addition, behavioral environmental activities guide us discovering the aims of pedestrian movements. There will be two movements derived from the situational and random behavioral activities which are transversal and longitudinal movements. Random behavior will be explained as the main generator of social interaction. Longitudinal movement is a focused on interaction, which is prior to the situated behavior. Transversal movement is an unfocused interaction, which is prior to the random behavior. Representing the activities with movements enables a spatial examination on the physical configurations of boulevard. And later the sub question, "Is it true to convert a boulevard into an intercity road?" will be answered.

In the case study, a general historical review, movement analysis with photographs, sections and land use will be used for examining the movement. The general historical review will give the clues about the symbolic, social values and meaning of the boulevard. Photographs will help us compare the differences and also inform us about the contrasts throughout the history. Finally, land use will show the physical barriers before and after 2007. In this section it is questioned that how these current interventions of underground road affected the social interaction mechanism along the boulevard.

To sum up, the main aim of this thesis is questioning the boulevard in terms of communication measures. When examining the boulevard it is accepted that the boulevard has communication measures, which is also evidently explaining in the historical and theoretical sections. The critical point is derived from the communication measures which are converted to the spatial movements. The secondary aim is to create spatial communication measures and to develop a special methodology to study the relation between communication and boulevard.

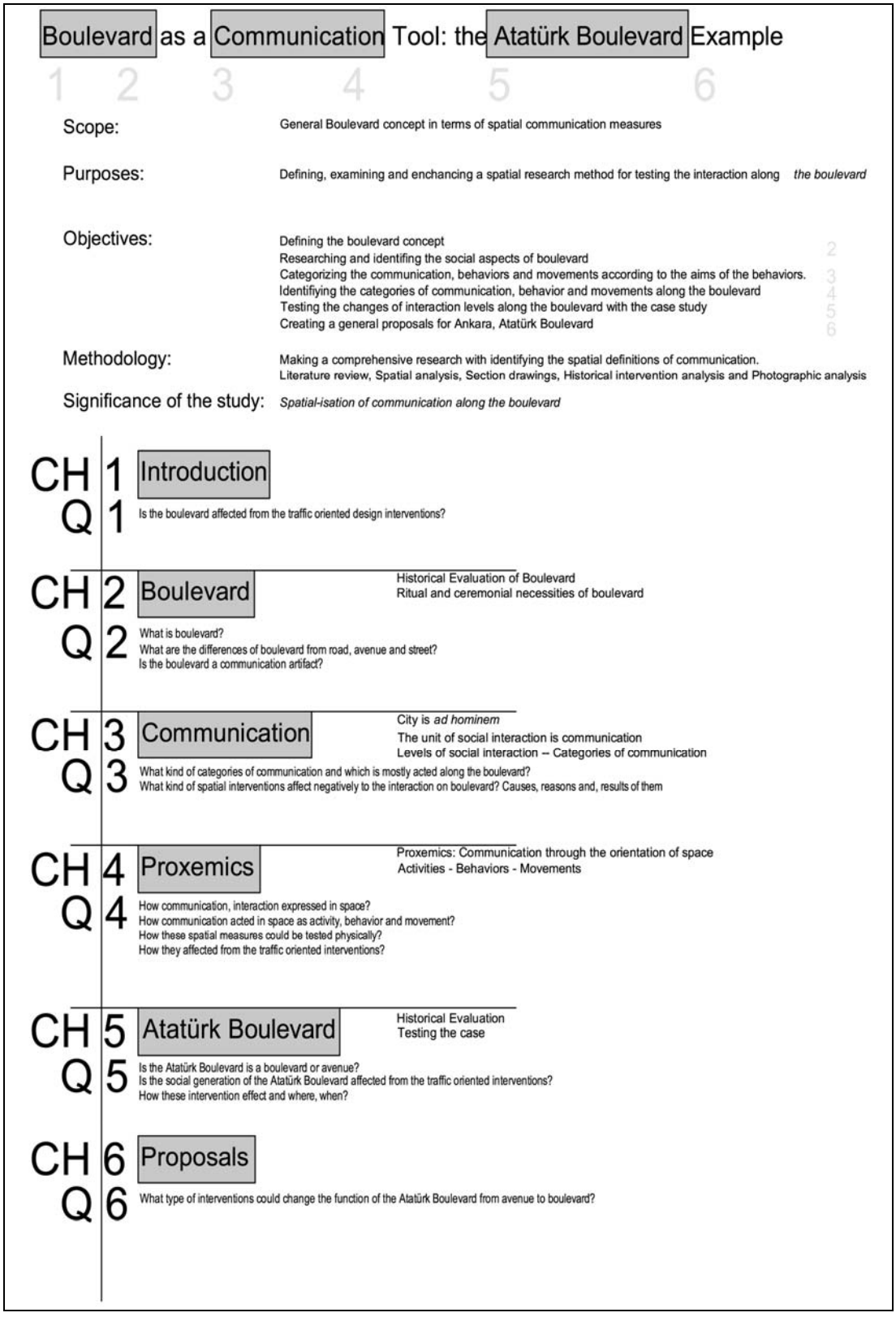

Figure 1 Schema of the Thesis.
Source: Personal Rendering

1.2. Research Methodology

This thesis started to examine the boulevard from its definition. The definition will be inferred from its historical roots. The history of boulevard will be explained from the intensive literature survey. The rituals, ceremonial implications from the first forms of the boulevard directed the research to the communication as the unit of interaction.

The first responsibility of planners who work on the space is composing the appropriate hierarchy of space of ordering and controlling. Communication as the unit of interaction, planners design the different hierarchical categories of communication. This thesis categorizes the communication in terms of the level of social interaction. On the other hand, territorial necessities will be emphasized and the behavioral purposes of the movements will be explained in the theoretical chapters. The unique attribute of this thesis is categorizing the space, behaviors and movements in terms of communication. However, the communication is a non-countable concept, the aims of the behavior and the directions of the movement became the changes in communication along the boulevard is comprehensible.

After categorizing the spatial definitions of communication, the thesis proposes an analogical examination between the old use and current use of the boulevard. The spatial analysis, photographic analysis, section drawings are used for examining the boulevard. These examinations will be tested in an example of Ankara, the Atatürk Boulevard on chapter 5.

1.3. Significance of the Study

This thesis is prepared for researching the human aspects on boulevard for planning and urban design disciplines. City as a social space has different hierarchical spaces with different social interaction levels. Boulevard includes one of the highest level of social interaction from the beginning of its historical roots. However, it has social

importance; the spatial opportunity of boulevards has been used for increasing the technical necessities of human beings.

This study is prepared for explaining the changing social aspects along the boulevard. The spatial interventions are affecting the social interaction level along the boulevard. The relation between the spatial interventions and social aspects of boulevard is the core research subject of this thesis. Consequently, a different methodological perspective is tried to be enhanced. The attributes of boulevard is explained with using the spatial explanations of social aspects. Author believes that this thesis will help planners, urban designers and transportation engineers to understand the preliminary concept of society when intervening the boulevards spatial lay out.

1.4. Structure of the Thesis

The boulevard is a planning tool. The roots of boulevard are much more historic. However, it is started to be used as a planning tool in 17th century. In addition to use of it as a planning tool, it has an important social, ritual element for human nature that is transformed to urban life from the old forms of civilizations.

This thesis is prepared for researching the boulevard concept and its evaluation process throughout the historical transformation since the beginning of its first historic forms of street. Urban space is a social space. The open spaces such as; squares streets, avenues, boulevards, parks; all are dedicated to human interaction in different spatial hierarchy and different categories of interaction level. In addition, interaction is compulsory for being social. In this thesis interaction is examined as the communication. The urban life is arranged for the requirement of different categories of communication. All planning interventions are the reasons of the changing needs of communication in urban social space. For this reason, this thesis is concentrated on boulevard with defining and examining it in terms of communication. Finally, the rational lay out of the study is applied on the Atatürk

Boulevard example to test that it is a boulevard and its attributes change according to the evaluation process.

Understanding communication will express a different perception to urban environment. The implication of communication helps planners understand the fact that the major subject of their design is community priority. However, the understanding of communication will develop a greater understanding of the whole urban life. In this thesis spatial definition of communication is used for understanding the boulevard concept.

Firstly, this thesis is focused on the boulevard concept and its historical evaluation process. The purpose of this examination is defining, explaining the emergence of boulevard, and the aim of using it in city planning. Furthermore, the changes of evaluation on the concept of boulevard during the history will also be examined. According to the changing environmental conditions, how boulevard space is adapted to the urban macro form and also the main structural changes will be defined. The historical chapter will give general spatial evaluation process of boulevard concept.

Secondly, the basic premises of communication will be defined as the unit of social interaction. In this chapter, the spatial definition of communication will be defined and when historical chapter is taken into consideration, "How these spatial communication measures could be changed?" is identified. The possible problems of communication will be expressed. For explaining and defining the communication measures, proxemics (communication through the orientation of space), environmental behavioral actions, and movements are explained. In short, this is the chapter of theoretical and general methodological structure of the thesis.

Following chapter will be the definition of basic spatial communication measures and their methodology which have been used on boulevard through the history. This method of analogy will help redefine the basic problems of modern boulevard and it

is helpful to understand the social interaction level of boulevard and what kind of categories of communication will hinder the social life of urban city. In the last section of this chapter, if boulevard is a part of urban social interaction, the planning and design criteria's for sustaining the boulevard concept will be defined.

Final chapter, before the conclusion, will be written for testing the changes on social interaction level in Ankara, Atatürk Boulevard. This section will especially examine the last underground road interventions. It will concentrate on how these underground roads affected the social structure of the Boulevard. The general historical background will be explained and it will be tried to compare with the last interventions. Finally, according to the theoretical explanations, a general proposal will be developed with giving possible solutions for the defined problems. Author hopes that; the general proposals will help planners constitute the main framework of their projects for creating and developing the Atatürk Boulevard.

CHAPTER 2

HISTORICAL EVOLUTION OF BOULEVARD

Throughout the history, boulevard concept has been examined into two main parts; Primitive Boulevards that have been stated as streets but functioned as boulevards and the emergency and evolution of modern boulevard.

2.1. Early Roots of Boulevard

2.1.1. Ancient Ritual Street

The word “boulevard" was first used in 15th century as *boloard*, and then it has been altered to boulevard in French language. In modern urban life, there are lots of words that signify the urban space typology such as: alle, route, via, avenue, boulevard etc. but, the simplest way of defining urban space is street.

“Street” is a Latin rooted word that derived from *sternere* as *strata* means to pave. It includes *str* root means connected with building, connected with construction. It is interesting that the general street formations of ancient and modern urban structure have been given linear space formation.

> “It is more and more widely recognized that there is some essential ingredient missing from artificial cities. When compared with ancient cities that have acquired the patina of life, our modern attempts to create cities artificially are, from a human point of view, entirely unsuccessful.” (Alexander, 1965: 58)

First designers who are also dwellers designed their environment with their basic instincts, demands, and daily routines in the most basic forms. Christopher Alexander’s word “*patina of life”* expresses the unique quality of design. The

uniqueness of those ancient environments stems from the dwellers who are actually the designers of their own environments. They needed to create to live, so; they created with their own simple ways. But it should be emphasized that the results are not as simple as their ways to built.

Alexander implies that archetypes with the word *patina of life* are inherited from our ancient kinship. Naturally, Street rationalizes our life with its linear space formation as an archetype. Actually, the essence of life itself is the street's linear path. Barlas (2006, 52) explains why street is an archetype of human with the poem of Aşık Veysel. He said that this poem is "the poetic image of the life-force (élan vital)." (Barlas, 2006: 52) In addition, he continues, "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." (Barlas, 2006: 53)

Barlas, 2006, Rykwert, 1978 and Jacobs, 1995 all give attention to *passage*. The metamorphic notion of street ending passage is not an end of life. The end of the street is a *holy world*. Participators main target is being or walking through that holy society after the door. No matter what it is name it could be a street, track, route, road; "the essential purpose which gives its special character, is sociability: people come here to see and be seen, and to communicate their vision to one another, not for any ulterior purpose, without greed or competition, but as an end in itself." (Jacobs, 1995: 272) This metamorphic structure is seen in several ceremonies of megalithic tribal communities. Initiation, circumcision, peacemaking ceremonies all have performed in a linear space formation because of their inherited archetypes.

[1]First example of ceremonial way is from Darling River Valley of Western Australia called Bora Ground. Main purpose of track is initiation ritual and also used for peacemaking. Rykwert defines that track as a walk from war to peace as so much similar with walking from life to death (1978, 16). As it is written before street

[1]Examples from: Rykwert, J., (1978), *The Street: The Use of its History*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, pp. 15-27.

meaning, space defined with buildings and construction. In Bora Ground, natural territory, many rituals purposed signposts and pointers defined the cognitive track's space. Moreover, there is a spatial quality between camps. The most striking feature is balanced structural formation, solid-void relation and also tension between camps according to the scale of the layout.

Australia, Apulla Ground is a different scale example at the same function. Arunta Tribes use that ground for initiation ceremonies. Ceremonial path is seen clearly in the physical symmetrical structure. Apart from Bora Ground's spatial harmony, Apulla Ground is physically simple, rigid and symmetrical; but the spatial diversity is dependent on gender stratification.

It is possible to duplicate examples from different cultures. Such as; Initiation camp in bushman Werf, Kalahari Desert in Africa, Todo Village in Manggarai, Flores in Indonesia and great works, in Teotihuacan, Mexico. All examples have unique linear spatial formation.

Ceremonial arrangements came from the need of socialization and existence. Socialization needs participation and identification of individual in the society using the several tools of communication. In order to communicate as we see from the examples as a tool, "…the track or the path is the ultimate sign linking the individual and the society." (Barlas, 2006: 55)

In common, the basic rationalization of individual archetype is spatially balanced, linear space between the two tensions. Beginning and destination of that track which is symbolized, and purpose of that destination or walking to the destination is the sense of belonging to the community. In brief, aim of that linear track is not only spatial link, but also used for preparing the substructure of communication.

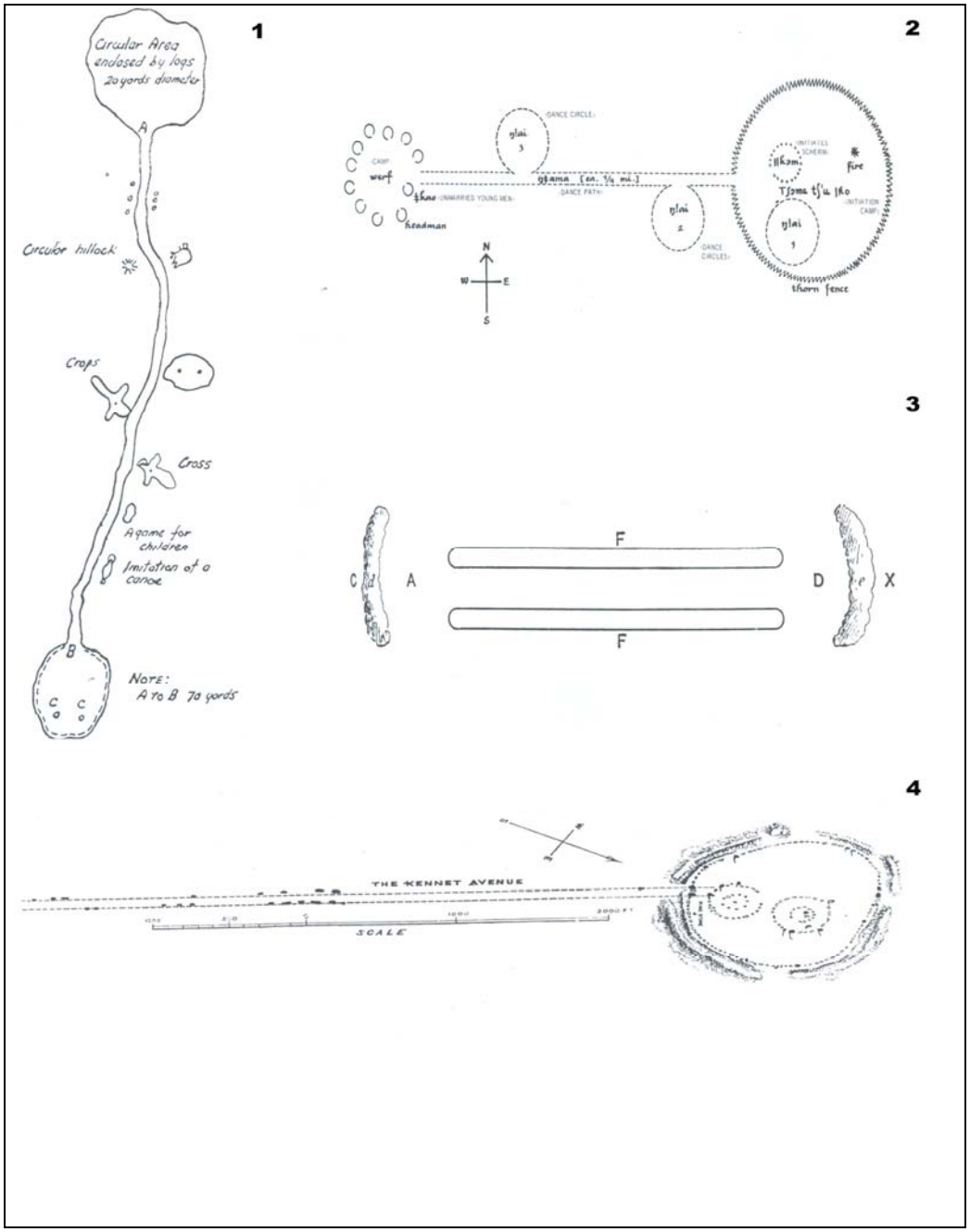

Figure 2 1-Bora Ground, 2-Bushmen Werf, Kalahari Desert, Africa, 3-Apulla Ground, Australia, 4-Avebury Wilts

Source.1: Rykwert, J., (1978), *The Street: The Use of its History*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, p.18. (Diagram by Surveyor General John Oxley at Moreton Bay, New South Wales; published in *the Journel of the Royal Society of New South Wales*, LIV (1920), pp.74-78.)

Source.2: Rykwert, J., (1978), *The Street: The Use of its History*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, p. 19. (George Brazillier, Inc., from *Village Planning in the Primitive World* by Dougles Fraser; reprinted with the permission of the publisher. Copyright 1986)

Source.3: Rykwert, J., (1978), *The Street: The Use of its History*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, p. 19. (Spencer and Gillen, *Native Tribes of Central Australia* (New York: Dover Publications, 1899), p.219)

Source.4: Rykwert, J., (1978), *The Street: The Use of its History*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, p. 21. (Sir R. Colt Hoare, *Ancient Wilts* (1812), vol. II, pl.xiii)

2.1.2. Greco-Roman Main Street:

As it is stated before, Ancient streets were designed by their dwellers. In Greco-Roman world, the situation has changed. The effects of revolution were observed in layouts of the urban form especially in the strict orthogonal layout of the Greek city-states. Somehow, ritual structure of the streets was not changed. It was varied with the different structure in the urban public space without losing its main purpose.

> "At all times, and long before people's actions and emotions were exhibited against payment on the stage, the street itself has been the great world theatre. Drama and comedy, both spontaneous and contrived, were supplied by daily life. The street was the setting for funeral and wedding festivities." (Rudofsky, 1969: 123)

Rudofsky explains us how the street is important in public life on urban streets and also, the main ceremonial structure is not changed. He emphasizes his words by William Shakesapear's "*The Merchant of Venice* contains no less than eleven street scenes." (1969, 134) Greco-Roman Period is not at the same age but the diversification of spatial environment of the film's stages is started with the Greco-Roman world.

As it is written in the first part, street is the only definition of the urban public space, from this perspective street is to be connected with buildings. This definition started to separate street in Greco-Roman period into three parts: street, road and main street which is emphasized as boulevard in this work. In this period, clear identification of these three spatial definitions is not possible.

First of all, street concept is defined in the previous section as connected with buildings. But later it started to be reduced: [2]"connected with housing." As Rykwert stated, "it has limited demarcations without necessary connections to other streets." (1978, 15) Orienting specialty of the street was reduced to be a kind of collector to a

[2] When road, main street, boulevard, avenue concepts entered in cities, street name is used for physically small spaces.

public space. On the other hand, roads were constructed with an aim of destination. They were integrated for a purpose of transportation. Rykwert's keyword in the meaning of road is a passageway, "a passage from one place to another (1978, 15), It is clear that, Barlas's definition of passage in the first part was much more different in meaning. Its ritual expression of life induced to the meaning of physical transportation.

Finally, Main Street was seen as a main artery of the layout. It was also transportation aim but meaning of that aim was different from road. It was a clearly recognized starting point and destination which also worked as a main artery of human body. It worked as a communication channel of the body. It was a collector and distributor of all public spatial activity; not only, the aim of transportation but also the main buildings which connected with main street as the aim of distribution of urban service, commodities, defense, administration, and infrastructure. The channel specification comes from its structure because, it is not connected with housing; it is connected with *buildings.*

Street, road and main street are the main elements of Greco-Roman Cities spatial structure. This is the spatial structure system into a simple, clear hierarchy.

The cause of that hierarchy is the activities in the exterior space of the city. Ellis explains that "The exterior spaces of the city are the rooms of the city, and the built structures are the walls of those rooms. The interior functional considerations of buildings can be coordinated to allow them to perform function of creating exterior city space." (1978, 130) The interior functional change of buildings creates the exterior spatial diversity, and forms spatial hierarchy of exterior city space. The subsets of exterior space should cooperate and work together otherwise; the whole integrity of the system will be tearing down. On the other hand, problem on the

streets and roads effect partially but, main street [3]disease affects whole body of interior and exterior life of the city that is because it's a communication channel.

Furthermore, Ellis highlights a general understanding problem of the main street. He explains, "The functions of place and link have been separated. This represents the reduction of the idea of street to the concept of road marked out on the ground, a register of the evolving schism between collective urban space and public road as bearer of traffic." (1978, 117)

In the examples, the phenomenon above, clearly observed. In the plan of Alexandria east west axis is connecting Eunostos Harbour and the canal. It articulates with main buildings and roads that establishes the connection with stadium, barracks and also houses. Between the houses strict orthogonal street structure collects the traffic and leads them to roads and main streets. On the other hand, roads of Milletus are much more observable. Northwest and southeast road parallel to Main Street that was dispersed its linearity between buildings and open spaces. Another example is Phaselis. A clear connection between the two bays. It is clearly observed that two different angled straight line intersected in the center of the city. Jacob's words best describe this dispersion of formation that not cause of the dispersion of its function. "It does not seem reasonable that every great street has to have something special, a physical thing, to mark its beginning or end, or that the start or finish should be crucial to making it what it is." (1995, 295) The balanced tensions between two polar are the crucial point. Both Sibyl Moholy-Nagy (1968) and Bacon (1967) emphasize balanced tension which was also written in the ancient ritual street part. So, early boulevard formation of Ancient Ritual Street carries on its structure as Greco-Roman Main Street.

The most coherent example is the formation of Athens Agora between 500 B.C. to second century A.D. The increasing communication effect of Main Street on Agora, develop a simple market to a civic centre along.

[3] Example Illustrated from: Vidler, A., (1978), *The Scenes of The Street: Transformations In Ideal and Reality*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, p.39.

The combination and also separation element of interior and exteriors of the Greco-Roman city have to be mentioned when the question is communication. This important element that Greco-roman world gifted to us is *portico* which is a colonnaded walkway along the building. It is an intermediary position between public and private places. Porticos placed connected with building, temple. It satisfies the instinct of seeing without being seen. It is a public promenade which helps to increase communication and activities related to communication such as trade.

In this part, it is clearly seen from examples that the main archetypical structure of ancient street was not changed also it is integrated to the urban macro form as a main street. On the other hand, separation of urban space into streets, roads and main streets also separate the activity on these three spaces and, the function of the ancient ritual street is attained to the main street. The streets and roads used for the purpose of transportation.

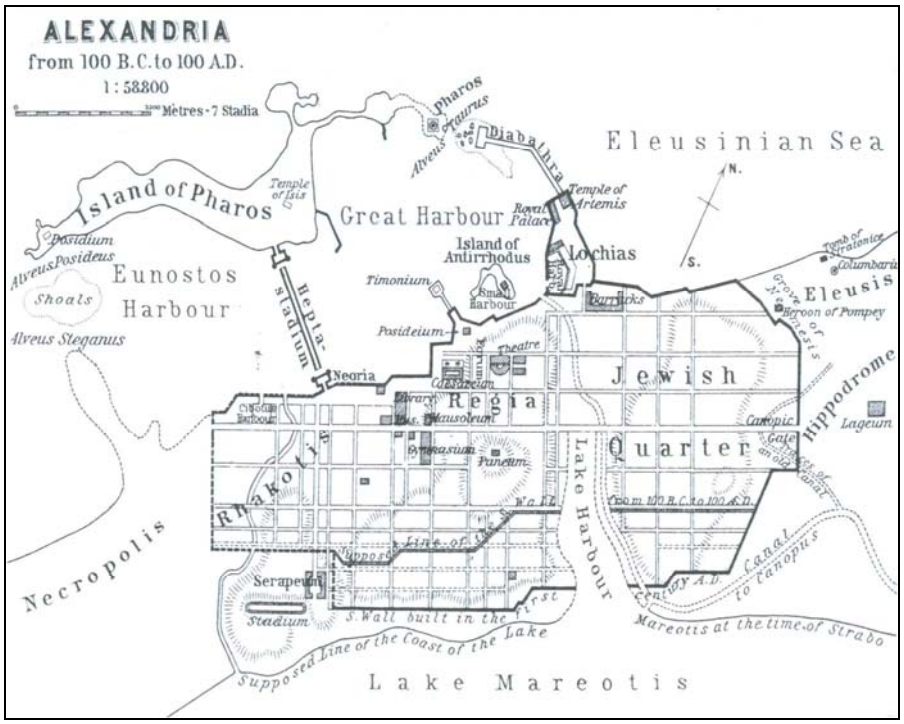

Figure 3 Alexanderia
Source: Moholy-Nagy, S., (1968), *Matrix of Man, An Illustrated History of Urban Environment*, Frederick A. Praeger Publishers, New York.. (Sieglin W. Geograph. Instit. of Wagner Debes, Leibzig.)

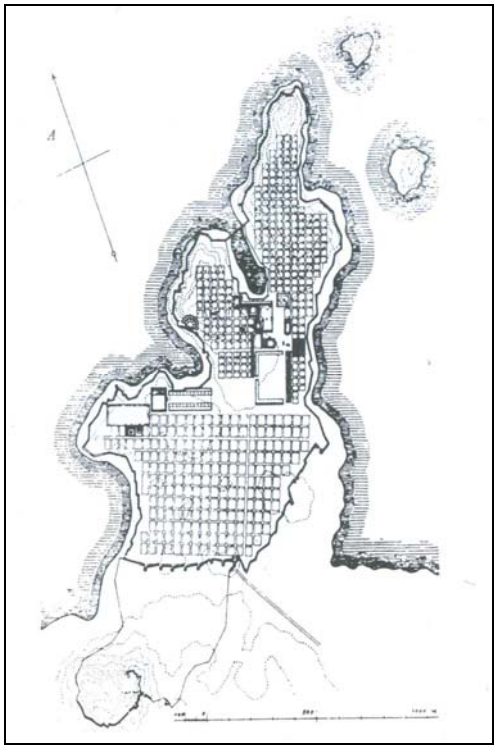

Figure 4 Miletus
Source: Moholy-Nagy, S., (1968), *Matrix of Man, An Illustrated History of Urban Environment*, Frederick A. Praeger Publishers, New York, p174.

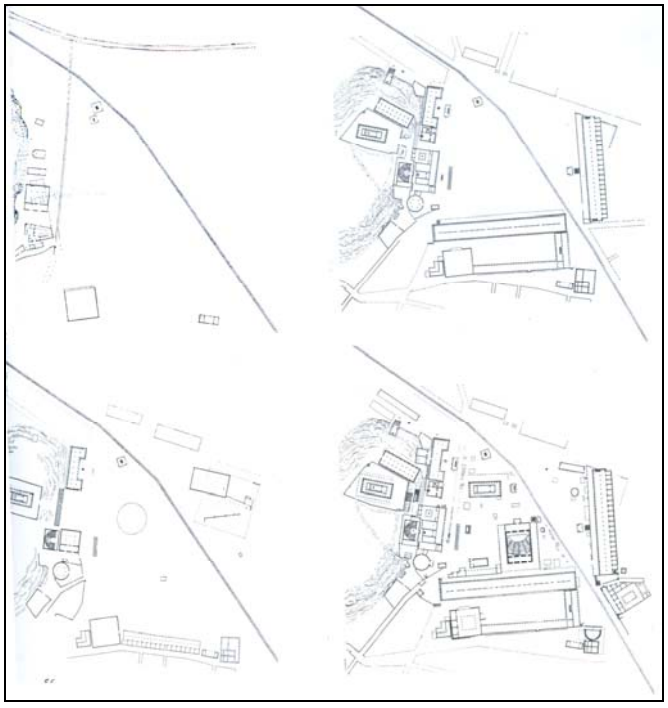

Figure 5 Athens Agora
Source: Bacon, E. N., (1967), *Design of Cities*, Thames and Hudson, London, pp. 56, 57.

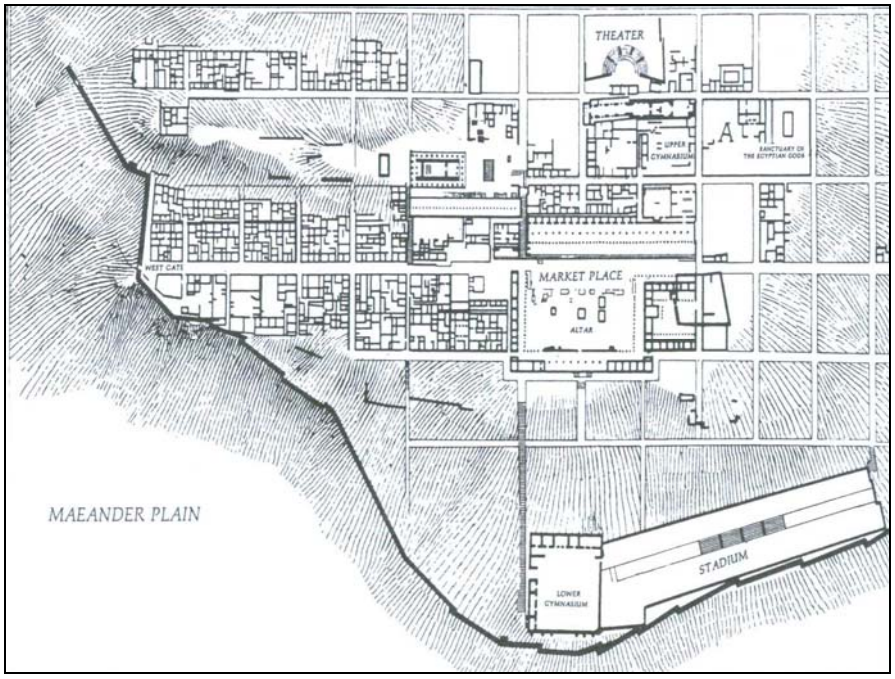

Figure 6 Priene. Edited by the author
Source: Moholy-Nagy, S., (1968), *Matrix of Man, An Illustrated History of Urban Environment*, Frederick A. Praeger Publishers, New York, p179.

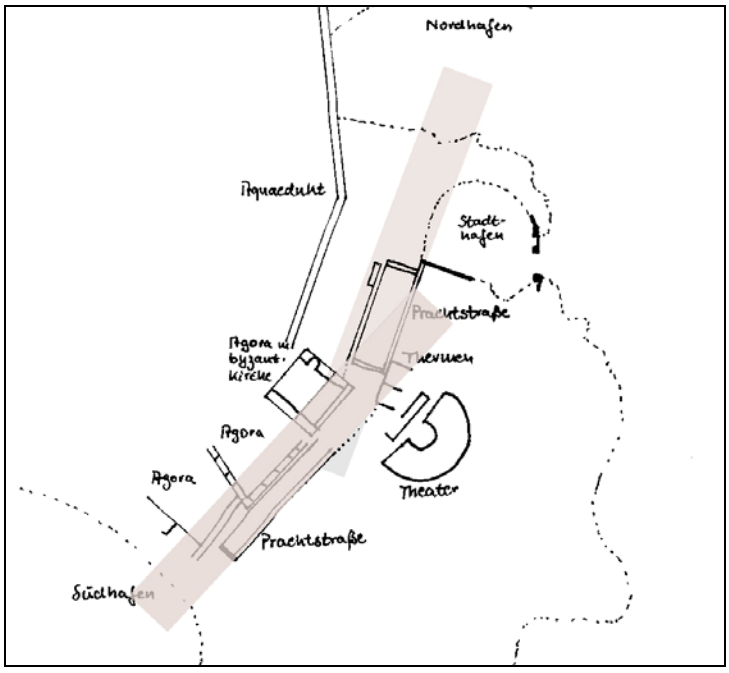

Figure 7 Phaselis
Source: Philiph, J., (2009), http://upload.wikimedia.org/wikipedia/de/a/ae/Phaselis_plan_axb01.jpg

2.2. Emergence of Modern Boulevard

2.2.1. Roots of Modern Boulevard, Medieval, Baroque and Renaissance Periods Main Formations, Rampart Boulevards

In Greco Roman world, three spatial definitions (streets, roads, and Main Street) are enough to understand the movement mechanism, but in medieval world this became much more complex. City structures were changed according to the increased scale both related to population and architectural layout with the rich heritage of Greco Roman urban elements. Nevertheless the increasing urbanization of streets affects dwellers much more. Urban structure's behavioral environment affects dwellers in proportion to Greco-Roman World.

"Soothing as rural life may be, it is the city that stimulates the brain. No other environment-least of all classroom-tickles the senses as much as the street." (Rudofsky, 1969: 326) As Rudosfky stated that from the first ritual street to Modern Boulevard, it is the street that we show our intelligence and also we learn. The change in scale, density and layout also affects the structure and activity of the streets.

In Greco-Roman period, Main Street structures are the great masses and space that they constitute. They have discreet the interior and exterior functions but they hold together. The harmonious tension between large monumental buildings defined the main street. But in medieval city they are insufficient to constitute that harmony in scale and layout.

Roma is the first example of this section. It is political, cultural and also spatial heritage that constitute European urban concept and also social life. But the effects of eastern movement in the European *Dark Age* should be considered. "Like other urban and cultural features of the medieval orient, the long, covered bazaar street was

an adaptation by the eminently teachable Arabs of the Roman decumanus." (Moholy-Nagy, 1968: 199)

In Medieval Age, Great buildings were considered to be seen much smaller when compared to classical Rome. "The establishment of points in space pinned down by the vertical mass of the obelisks, and the definition of lines of tension between these points. The articulation along the lines of movement is not arbitrary." (Bacon, 1967: 73) This involuntary movement between the lines made disjointed and deficient communication mechanism. When the scale and density is concerned it is hard to control the city. In Ancient Rome, the gifted portico's functionality on communication -necessity of seeing without being seen- is not much effective in that rapid growing urban macro form. There is no intermediary space, defined alleys. This lack of spatial integration between spaces causes failure in spatial hierarchy and alienation of individual to the urban space and finally chaotic movement system.

New city visions came from the lack of control on city that is formed organic structures. Great architectural building system/obelisks, churches, amphitheatres-connected involuntarily, lack of communication and, on the other hand lack of under control concerned as a whole.

> "It was the extra energy of the baroque period, resulting from the confidence inspired by the master of design technique, which produced the great interaction between structure and setting…
> …similar exuberance was expressed in the Roman plan of Sixtus V for a city design structure binding the points of design energy into a total system." (Bacon, 1967: 112)

This was the energy of line that was the characteristic design structure of Baroque period. This line again has more than Bacon's expression of Baroque period. It was the line that is mentioned through the first part. Unfortunately, main aim is not the communication of the society. This line as a first root of Modern Boulevard, helps to increase the communication but, reason is the political absolutism of Christianity. Moholy-Nagy noted that "the historical motivation behind this concept change in planning were the counter reformation and political

absolutism." (1968, 141) Furthermore, the integration of wholly structured new movement system could not be constructed without an absolute power on such a big macro form.

Sixtus V's design of new Rome was the capital city of Christianity. He wanted to establish a new design to integrate the churches and the city. Sixtus imposed an order to Rome that was in a chaotic environment under the Christianity approach. Today, this could be thought as fascist and despotic, but under the condition of that age, this is the reason for the need of communication with the aim of imposing Christianity and control. He thought churches are the points that produce and create energy. Bacon states to draw simply a line between these points in the space. The powerful lines of Sixtus end in the Piazza del Popolo. This is simply the *"path of kings"* that Moholy-Nagy states. The flow of Piazza del Popolo is similarly shows, the gifted power of feudal structure in the hands of Christian elite similar to mosque in eastern religious structure that is used as a gathering point. The power comes from both politics and physical environment. Both of them have passive and active role in a way that each affects the other. "The space that defines the politics and the mode of political thought is also the real condenser of public political activity." (Vidler, 1978: 32)

Sixtus V in the 16th century, -even if it was a despotic idea- he created the first modern spatial type of the boulevard, and used it as a tool in city planning. Actually, there was no one line in this new concept but there was integration between boulevard and city, and there was the aim of communication which is also similar to the ancient examples.

16th-17th century period was the new era in city planning; boulevard formation started with the baroque and Renaissance. For city planning, a key concept of creative tension is the bridge between two eras. It started with the old baroque and continues with renaissance. This is the tension that was mentioned before to indicate the linearity. "During the Baroque period full architectural expression was given to the idea of placing two bodies in space so that a vital flow of forces from one to the other

was set up, resulting in tension between them." (Bacon, 1967: 136) Michelangelo's the hands of Adam and God painting is the clear example of tension expression. The tension between the two edges of boulevard has a simple expression, meaning as the Michelangelo's painting.

Concepts of Renaissance are grown in Baroque monumentalism. With the new thoughts of design harmony [4]*veins of leaf* is seen in the heart of Rome. During the Renaissance this thought has also continued as a single movement system. Nature is the inspiration of Renaissance man. In addition, "The principle of Renaissance design, based on the image of man, in symmetry and balance with the microcosmic forms of universal harmony, had reintroduced the Platonic idea of the perfect form as the most organic." (Vidler, 1978: 39) Vidler continues with the medical science terms like, balanced flows, stress and tension, structure, decay, tissue. Interestingly, these are the terms today's city planning literature. In growing renaissance approach of image of man, it should be considered that *the* [5]*disease of that image of man not started yet*.

Before starting to talk about other medieval boulevard, the best definition of the movement system in urban macro form came from the Serlio's theatre to street.

> "There are three kinds of scenes; one called tragic, second the comic, third, satiric. Tragic scenes are delineated with columns, pediments, statues and other objects suited to kings; comic scenes exhibit private dwellings, with balconies and views representing rows of windows, after the manner of ordinary dwellings; [6]satiric scenes are decorated with trees, caverns, mountains and other rustic objects delineated in landscape style." (Vidler, 1486: 50)

Sixtus V's movement system is the creation of first European boulevards in a sense that boulevard became as a political, religious, economical and social tool. But,

[4] Illustrated from: Bacon, E. N., (1967), *Design of Cities*, Thames and Hudson, London, p. 114.
[5] The disease will be explained in the Modern Boulevard Part, means separation of situated and random activities.
[6] It should be marked that satiric scenes also have a didactic perspective. This didactic part is an important experience in boulevard and also one of the main aim to communicate someone. It is related to being in the society, existance and awareness of environment.

modern European boulevard concept is not started with only Sixtus' interventions. Second generation boulevards are the rampart-bulwarks- boulevards. The need for defense had an important role on shaping urban macro form. Furthermore, need of defense of human being is one of the necessities to get together. "City life meant separation from natural resources, defenses and escape routes. It meant passive exposure to famine, epidemic, conflagration, earthquake, and assault by sword, later by cannon, and ultimately by airborne weapons." (Moholy-Nagy, 1968: 40)

Vienna is the second example where the boulevard term is first used. Rampart is the wall surrounding the city. Vienna surrounded with rampart in 13th century as a result of Turkish sieges. Walls strengthened and expanded in 1529. Legendary walls of Vienna proved their functionality in 1683 Turkish Siege. But, according to the changing technology of war, in 18th century walls lost their importance. Walls obstruct the communication of inner city to suburbs. Emperor Franz Joseph I demolished the city walls in 1857 to build a commercial road, which is called Ringstrasse today. As it is understood from his name, it is a circular boulevard. Although, it is circular shape, the image of Ringstrasse is linear. Jacobs explains this linearity as "it is much more direct to walk across the city than around the ring." (1995, 144) Because of its circular formation, there are no concentric activities like Rome's Piazza del Popolo, but small plazas in the intersections and turning points gives the sense of closure and the sense of direction of the linearity that a characteristic image of boulevard. As the great monumentalist Baroque architecture of Sixtus V's boulevards give its place to big institutional buildings that stand alone. Maybe the most important characteristic that gives the life is the residential buildings surrounding the space. With the comic-residential- scene of theatre, Ringstrasse contains the three scenes of Serlio.

However, the intervention of Sixtus V created a boulevard formation, as the roots of word hint us Vienna example. Baroque streets changed the medieval proportion. The widths of the streets are equal to twice of the houses height, but in Renaissance proportion they are equal. According to the changing population and density of the cities, streets got narrow. To overcome the limited space, to get the necessity of

communication for management, walls of the cities were demolished and converted to arteries. "Today the word boulevard has lost much of its original meaning; developers use it loosely no describes streets of all kinds in an attempt to convey an aura of specialness. Originally, however a boulevard was a very special type of street in a particular location." (Jacobs, Macdonald and Rofe, 2002: 74) The origin of the word and as an intervention type of boulevard is that demolishment and mostly, its effects on city to be a communication artery later on.

Directly, boulevard became an integral part of the city because of the need for physical communication as traffic. Indirectly, it is used either a reason or a cause of integration, it became a social communicator. So, boulevard is a kin and composed of the functions of avenue and an alley, promenade. "The *promenade* was a public ritual that developed as European urban culture grew to embrace a new concept of society and associated ideas about leisure." (Jacobs, Macdonald and Rofe, 2002: 74) During the Middle Ages of Europe and Renaissance Period, increasing prosperity and bourgeoisie became strongly important to define who belongs to the society and who not. These promenades had started their life in Paris gardens during the late 16th century. In 17th century, they built outside the gardens. Today's most significant boulevard, Champs Elysees as our third example, is a public promenade to Royal Tuileries of Paris.

On the other hand, Paris ramparts started to turned promenades. It started with Luise XIV in 1670. These transformation took many years and finally, one two or sometimes five row the tree lined -*cours*- between 200- over 600 meter integrated to city. Jacobs explained that transformation as "The promenades- first called *cours*, and then *ramparts*- finally came to be known as *boulevards*, in reference to a particularly large bastion called the Grand Boulevard that stood on the ramparts north of the Porte ST. Antione." (Jacobs, Macdonald and Rofe, 2002: 74) Grand Boulevard is segmented and all segments are known to the old bourgeois families name like: [7]Boulevard Beaumarchais, Boulevard de la Bonne Nouvelle, Boulevard

[7] Examples From: Jacobs A. B., Macdonald, E., Rofe, Y., (2002), *The Boulevard Book: History, Evolution, Design of Multiway Boulevards*, The MIT Press, Cambridge, Massachusetts, London, England, p.75.

Montmartre etc. In first years, these segments are isolated to city because of few intersections; they are not an integral part of city. But in 1750 when the city grew and the boulevard surrounded by the city, this place had became a popular gathering place. Actually, the isolated structure and increasing bourgeoisie affectation had also a trigger on that movement but the real is the necessity to public ritual.

The Grand Boulevard of Paris started with restrictions to fast transport vehicles. First of their land use was pleasure. Then, Horse drown chart allowed but only in the central roadway. When they want to stop they had to pull over to the edges. [8]Later, the boulevard dressed up with the human related leisure components like cafes, shops, restaurants, and theatres as it was in Greco-Roman period.

It was the great work of Napoleon III and Baron George Haussmann. Actually, the world most famous boulevard was not designed as leisure place. The reality is much more related to use of them as a rampart. The interventions were the preparation for the new changing conditions of late medieval war techniques.

> "His intentions and those of Napoleon III were neither social nor communal. His "cannon-shot boulevards" were designed to prevent the building of barricades and to facilitate the deployement of troops during the periodic uprising of the Paris proletariat… …Hausmann's second purpose was commercial-furnishing a rising middle class with dwellings and places of business whose revenue would benefit the royal purse." (Moholy-Nagy, 1968: 40)

On the other hand, Haussmann designed a progressive infrastructure for Paris dependent to boulevards. But works for protecting regime was terminated in 1871 and boulevards were integrated in city with peaceful purposes.

Roma, Paris and Vienna's boulevard are the great works of that period. Although they were important, they had problems. For example, Haussmann ignored to connect major arteries of Grand Boulevard. Today, it has been also a problem for

[8] Similar example is seen on the Athens Agora's growth. Boulevard tension made that interest.

Paris. Sixtus V gave importance to linearity but the topographical conditions were not suitable. They are not the ideals, but their principle concept to *render communication easy and comfortable* was established. They are multi functional tools for necessities. Apart from today's, traffic oriented features for vehicles, "the building lines are rarely parallel; houses jut out into the street like the wings of an old-fashioned stage. Indeed, at every step, comparisons with a stage come to mind-not Broadway, but those "real streets, artfully and pleasingly contrived" of the early Renaissance theatre." (Rudofky, 1969: 244)

These three example boulevards had great affect on the boulevard concept, and they are the first examples of boulevard that differ from each other. Rome is not a rampart boulevard but it was the first implantation to wide linear movement structure to redesigning the growing urban form, although it has a three linear structure. In Paris has a different evolution. It started through the promenades of bourgeoisie widened with militarist intervention. It is the best known linear type boulevard today. Finally, Vienna which was an original, example gave the name of it. A circular *bulwark*, rampart demolished and redesigned as boulevard. All of them have a part of characteristics of European boulevard form between 16^{th}-19^{th} centuries and give image of Modern Boulevard.

Kostof, 1991 explained the roots of boulevard compared with the avenue. He implies avenue is the transportation oriented route, but the boulevard carries on the ceremonial, social structure of the primitive street. The boulevard is a boundary between city and country as a wall. In first, 1670, "the destruction of the medieval walls of Paris and the filling of the old moats, these sites were elevated promenades, planted with double rows of trees and accessible carriages and pedestrians." (Kostof, 1991: 249) He emphasizes that the boulevard is an urban element but the avenue is largely rural. However, the militarist interventions aiming to cut down the trees; the citizens saw the chance of a pleasant shady promenade. Later the boulevard shaped by combining the small alleys, promenades (Kostof, 191: 249). Especially, bourgeoisie saw the chance of ceremonial rituals. "Marie de Medicis, the queen of Henry IV, introduced the ritual of coach rides to Paris in 1616, where a walled

quadruple alee, the Cours la Ren, was laid out for the purpose beside the Seine below the Tuileries." (Kostof, 191: 250) An urban ceremonial way, *rampart, cours* differentiated from the rural roads, combined with the destructed walls in 17th century and constituted the modern tree line boulevards.

In grand manner, "a boulevard is more than a wide street. -A tree-lined street- often as large monumental ways that linked important destinations manifested in the form of large buildings." (Jacobs: 1995, 35)

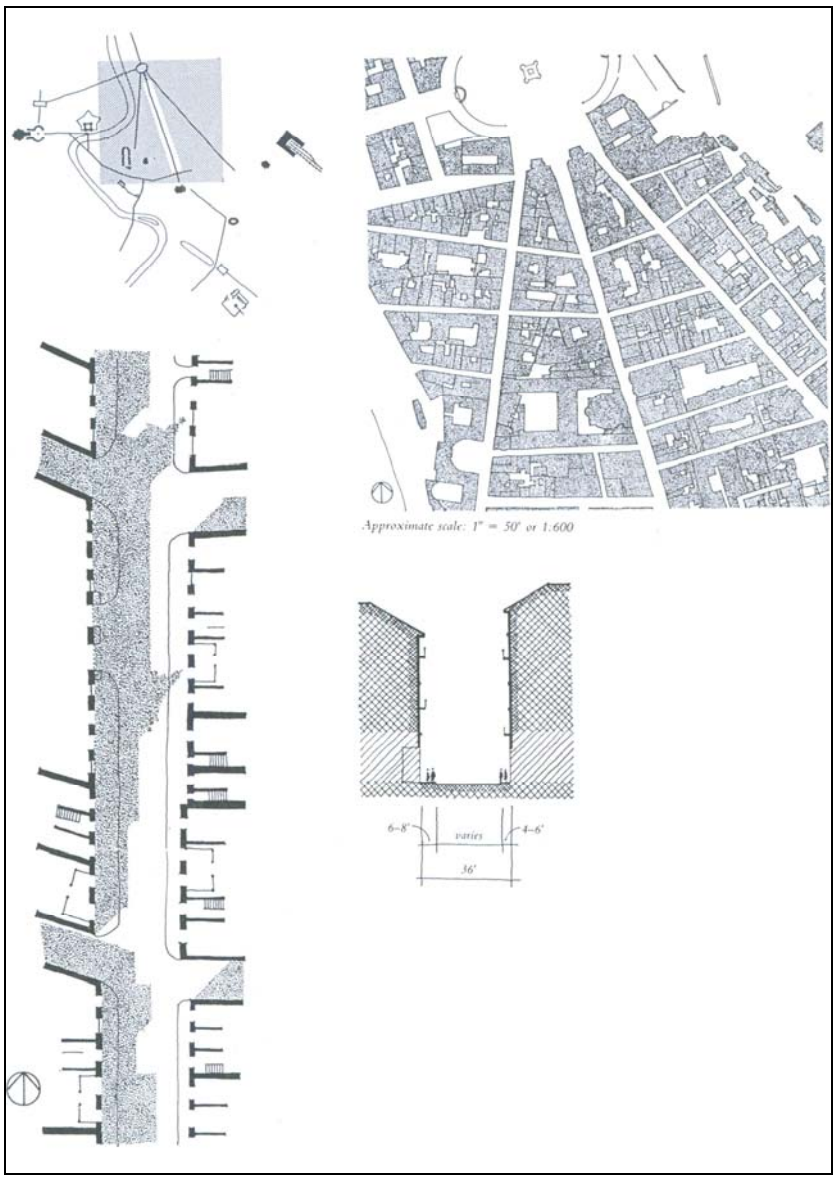

Figure 8 Rome
Source: Jacobs, A. B., (1995) *Great Streets*, The MIT Press, Cambridge, Massachusetts, and London, England, pp.80, 81.

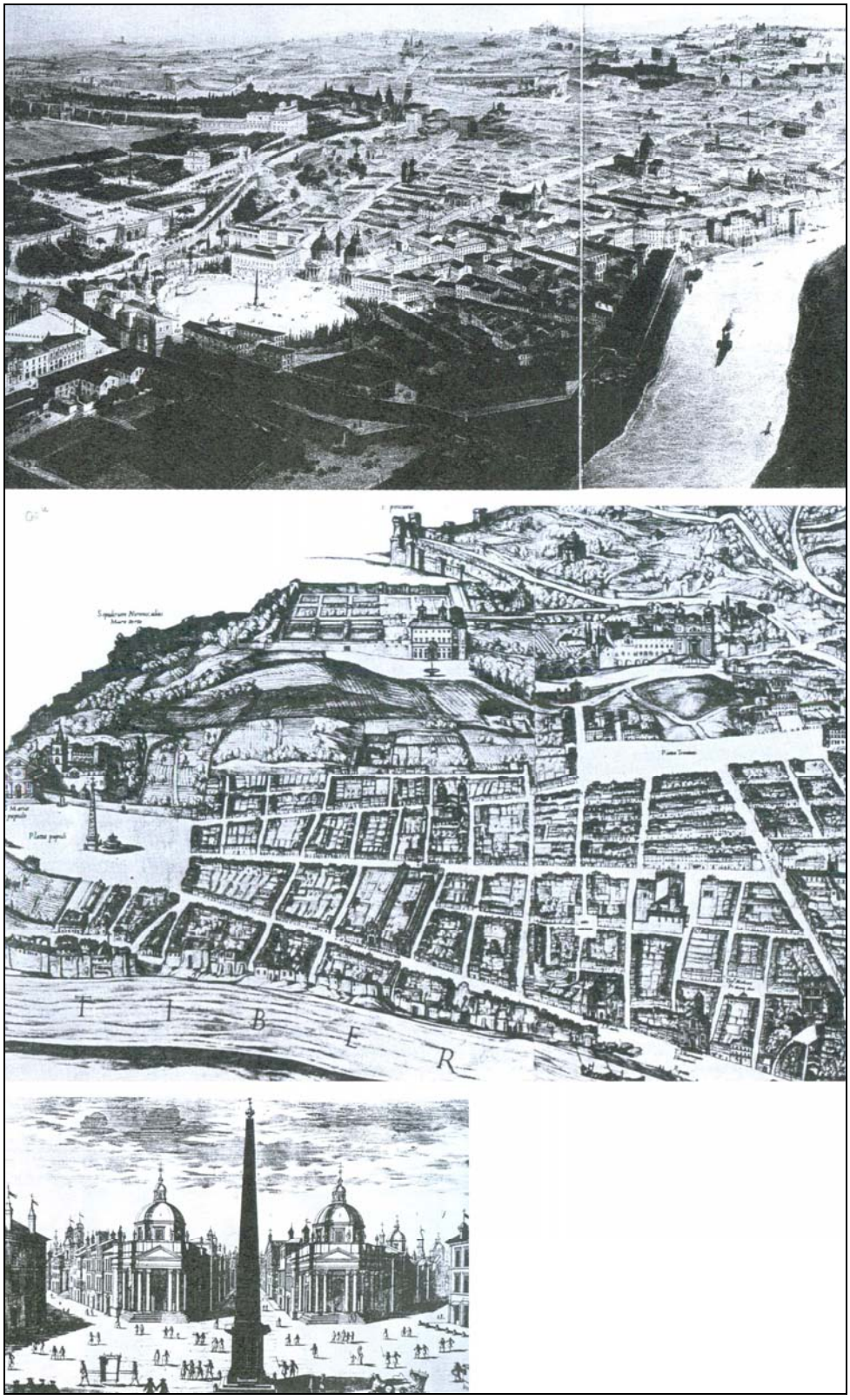

Figure 9 Rome
Source: Bacon, E. N., (1967), *Design of Cities*, Thames and Hudson, London, pp. 140-143

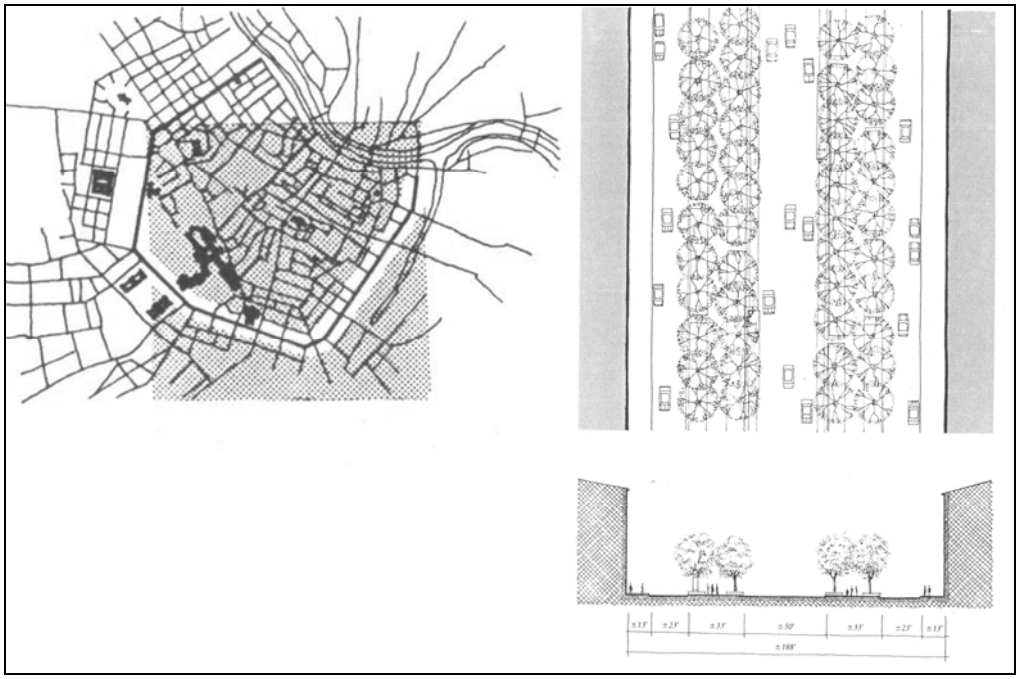

Figure 10 Ringstrasse
Source: Bacon, E. N., (1967), *Design of Cities*, Thames and Hudson, London, p 142, 145.

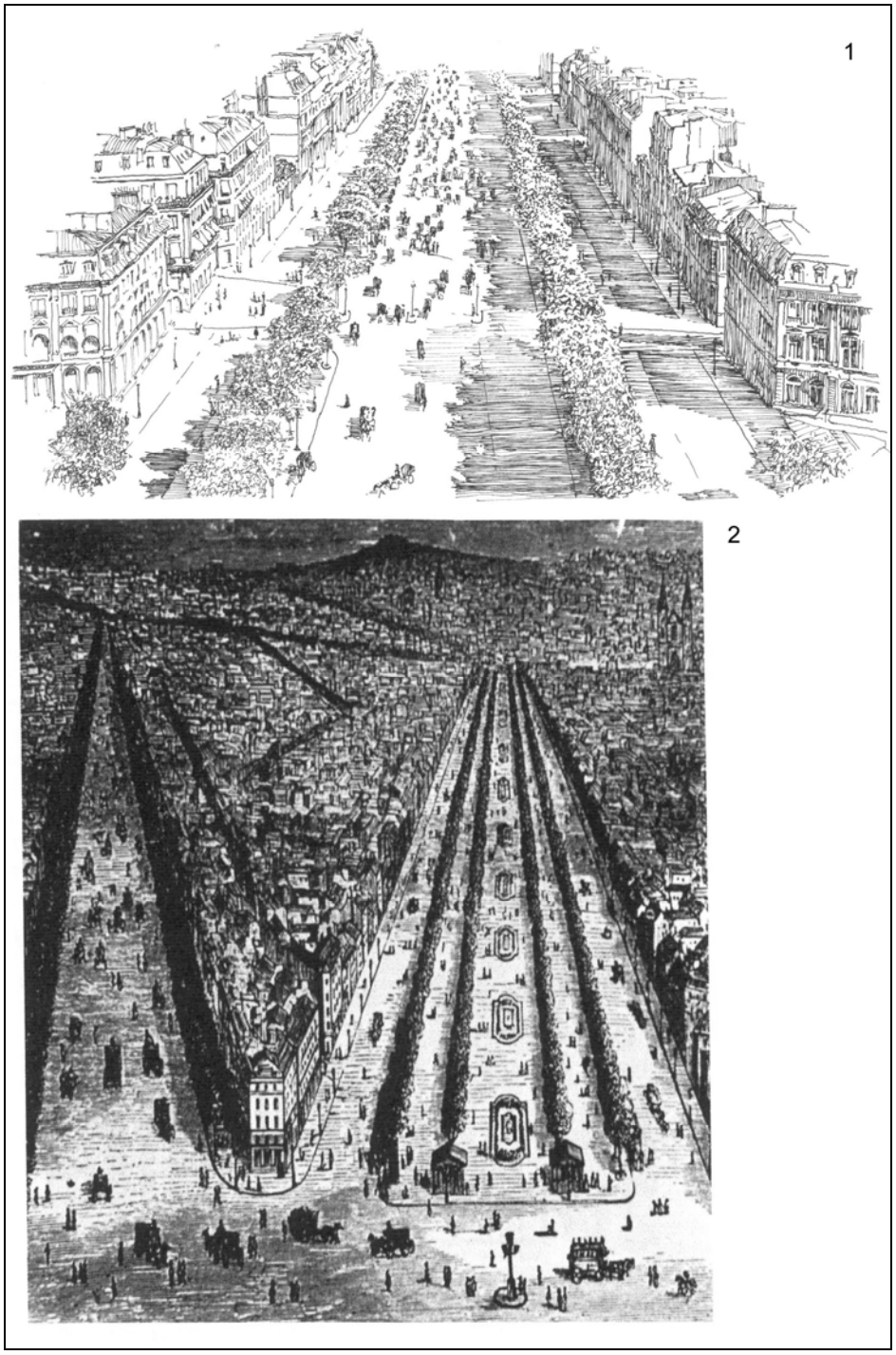

Figure 11 Paris
Source: Jacobs A. B., Macdonald, E., Rofe, Y., (2002), *The Boulevard Book: History, Evolution, Design of Multiway Boulevards*, The MIT Press, Cambridge, Massachusetts, London, England, p. 80. (Drawn from a photograph in Jacques Hillairet, Dictionnaire Historique des Rues de Paris (Paris, Les Editions de Minuit, 1985). Musee Carnavalet.)
Source: Ellis, C. W., (1978), *The Spatial Structure of Streets*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, p. 121. (Sigfried Giedoion, *Space, Time and Architecture* (Cambridge, Mass.: Harvard University Press, 1939,), p.752)

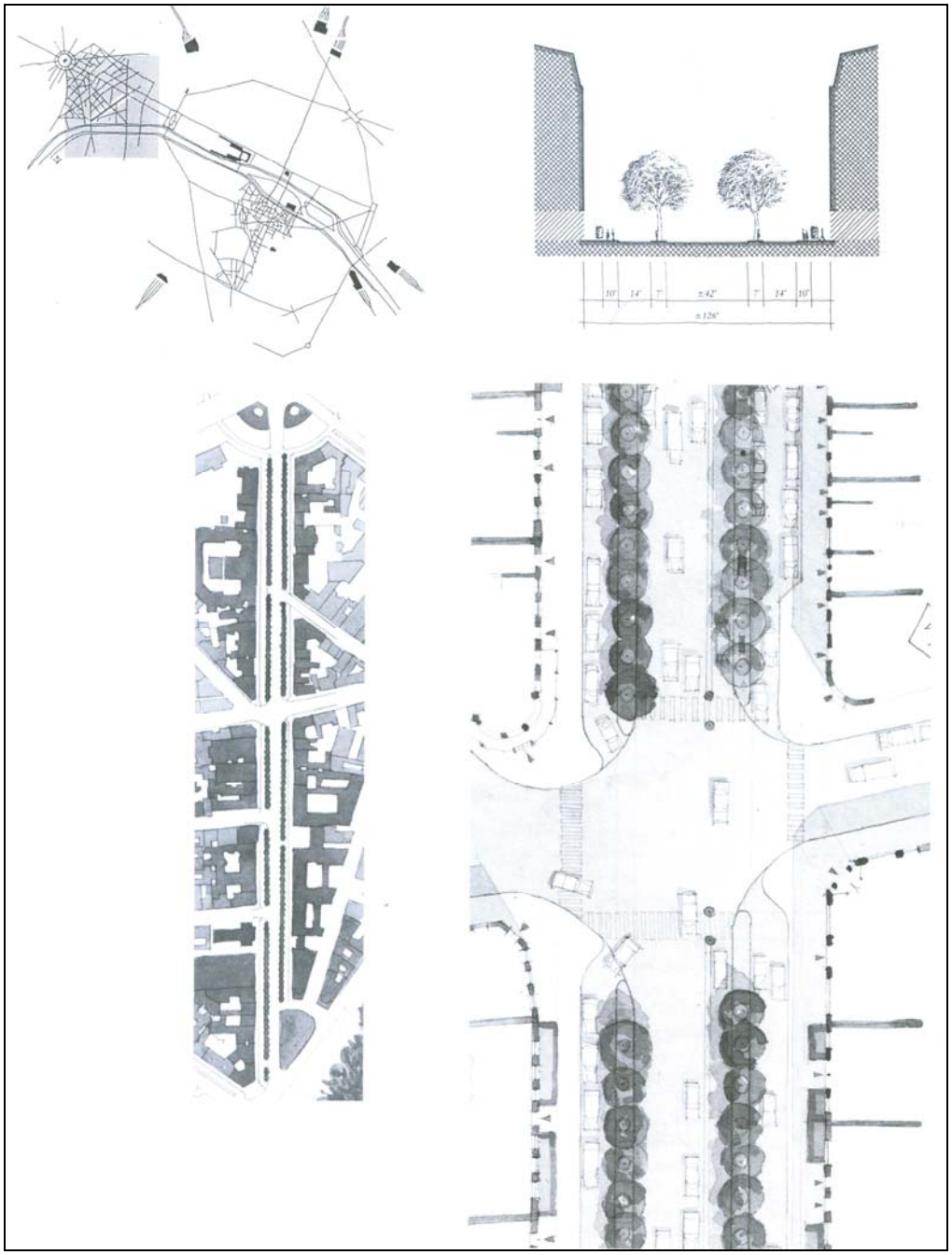

Figure 12 Paris
Source: Jacobs Jacobs, A. B., (1995) *Great Streets*, The MIT Press, Cambridge, Massachusetts, and London, England, p 51, 53.
Source: Jacobs A. B., Macdonald, E., Rofe, Y., (2002), *The Boulevard Book: History, Evolution, Design of Multiway Boulevards*, The MIT Press, Cambridge, Massachusetts, London, England, p.19.

2.2.2. Modern Boulevards

19th century is a new era for boulevards. Most cities used that tool to integrate and make controllable urban space. The purpose of leisure had continued. They mostly solved the problem of chaotic structure of cities by integrating the movement structure and giving hints to the direction to grow. Because of their rampart boulevards, they are not strictly linear, they are circular, semi circular and radial forms when the scale is concerned, they are giving the sense of linearity. Baron Hausmann's restructuring, adapting the boulevard a rapid growing macro form. He breathes a new life into cities. He wanted to improve his early work separating the rapid and slow movement to solve the increasing affect of wheeled vehicles. The changings are the roots of today's modern boulevard and physically, it could be examined in three types as; *boulevard street, the centre median boulevards, and the multiway boulevards.*

> "One type has a wide central landscaped median flanked on either side by roadways and sidewalks. The central median may be a pedestrian promenade; or it may simply be planted with grass, trees, and shrubbery. Streetcar lines or horse trails were often located in the central median…
>
> …A second type of boulevard is really nothing more than a street withy a wide central roadway and broad, tree-lined walks along each side…
>
> …The third type of boulevard is… …strictly different from the other two. The multiway boulevard is designed to separate through traffic from local traffic and, often, to provide special pedestrian ways on tree lined malls." (Jacobs, Macdonald and Rofe, 2002: 5)

Although, Hausmann's application of multiway boulevard is much more generous than today's pedestrian ways, it simply placed the wheeled fast moving vehicles in the middle of our streets. The amalgam between the road and the street appeared again. It could easily be seen in the names of the streets. "While many nineteenth-century streets with boulevard form were called boulevards, others were designated avenues, while yet others, particularly in United States, and were called parkways. Moreover, street lacking the attributes of the boulevard form were often named boulevards to bestow on them a sense of grandeur." (Jacobs, Macdonald and Rofe, 2002: 77) The boulevard which began its life as a peaceful place that wheeled

vehicles and pedestrians existed and concerned equally, is now on, a place for giving incentives to wheeled vehicles. Pedestrians were pushed to the peripheries of the boulevards and also streets in grand manner.

Before explaining the cause and effect relationship of that separation, it should be helpful to place the modern boulevard in the schema of movement design. Bacon's schema in 1967 could be finished today.

Table 1 Chart of Design Apprehension, Presentation and, Realization

	APREHENSION	**REPRESENTATION**	**REALIZATION**
MEDIEVAL Intuitive Design	Awareness of total environment	Simultaneously several objects from various viewpoints	Construction closely integrated to its environment
RENAISSANCE Individual-Centered Design	The precise observation of one individual at one specific moment	Rational, rigid, one point perspective of a single object in space	Single, self sufficient buildings, detached from surroundings
BAROQUE Single Movement System	Experience as simple continuity in time	Simultaneously multiple planes receding in space to single vanishing point	Structures related to movement along a single axis
MODERN Simultaneous Movement System	Space-time relativity-*traffic oriented design*	? *Several points in space connected with avenues, multi-way boulevards. Separation of Movement system to avenues and promenades.*	? *Uncontrollable rapid growth through the several axes. Accessibility defines the growth.*

Source: Bacon, E. N., (1967), *Design of Cities*, Thames and Hudson, London, p. 31.

Modern era can be considered to be a decline period of the social boulevard. New boulevard was shaped as a multi-way boulevard, avenue according to the traffic oriented, transportation aimed interventions.

It is so facile to blame technological innovations (automobiles, vehicles) have only the responsibility however; they have been an important impulsion for change. Pressure of increasing density of population and changing urban macro form, automobiles and wheeled vehicles, reductionism approaches in planning all have important affects on modern boulevards. The planners have the responsibility for redesigning a new structure for changing urban dynamics.

Starting the 18th century, daily life of individuals has been changing in accordance with the changes in transportation means. New means of individual and public transportation superseded to the *horse back riding, coaches and wagons*. Before the century, primitive transportation is used only for limited citizens, kings, aristocrats, so that, it was not necessary to change the public streets for them. After these horse driven coaches increased in the street because of the rising middle classes wealth. The rapidly increased middle class imitated the bourgeois habits. Their desire to show off their wealth and they began to have more and more vehicles and, they made a pressure on streets. This new habit started to separate pedestrians and vehicles of aristocrats. As it is written before Paris is also one of most significant examples to that separation. Wheeled vehicles need streets for fast traveling and also smooth paved parking places. So, the separation came with new regulations in the traffic of boulevards. Automobiles upgraded that movement in 19th century. "For the first time since antiquity, it had been usurped by fast-wheeling traffic. People were separated into two categories – those who walked and others who rode. They rarely exchanged roles; the traditional equality of all street passengers was never again restored." (Rudofsky, 1969: 326) Boulevards, streets of the city that was designed as places for all public usage, reduced to the spaces of the city that all aspects integrated by traffic engineers.

Multi-way boulevards of modern era are designed to handle all circumstances of the traffic. Actually, it aimed to integrate automobiles to these large public spaces of the city. "Until the middle ages, however, the dividing line was not clear … Pedestrians were often forced to the edges along with the offal and sewage while animals and vehicles took up the space supposedly reserved for pedestrians." (Gutman, 1978: 250) Because of the increasing wealth and population in cities, there is a need of new guidelines. Unfortunately, boulevard as the biggest linear social places of the city has the spatial potential when new means of transportation is concerned. Bacon states historically the methods of growth: "growth by accretion-interlocking spaces as connectors during Middle Ages, growth by tension in baroque age and growth by extension- guidelines of boulevards-." (Bacon, 1967: 69) Growth and traffic oriented, engineering based new design measures characteristically built American cities as simply grid-iron plans.

Brooklyn is the first city that integrated multi-way boulevards in city pattern. The first official city plan was adopted in 1839. In 1860, multi-way boulevards which were designed as parkways for the proposed greenery system from the centre of the city trough the peripheral areas. The parkway system divided the city into five areas that the parks will design according to the historical evaluation of the boulevard. It started with the narrow streets, continues as curbs and finishes in the central park. Olmsted and Vaux's design of parkway to Brooklyn was partially built. Brooklyn example shows how Americans influenced from the rampart boulevard of Europe, but, unfortunately, the integration was changed and adapted to grid iron pattern as growth and traffic oriented way. The rampart boulevard as a powerful tool in city planning changed to a multi-way and parkway structure. In 20th century the design of parkway with its romantic, historic vision completely changed. The rising of charts and later on the fast moving automobiles converted the parkway to a centre median boulevard that was the first selected archetype of Olmsted and Vaux. Finally, it became a multi-way boulevard with fast moving automobiles on the middle stage, slow service vehicles on each side and in the peripheries, pedestrian ways. In the Brooklyn example, boulevard is reduced to a parkway with the Hausmann's view

that seems as an archetype for modern designers. Paris boulevards are places with their environment. But, in Brooklyn that subject also reduced to parks. They are not the generator of pedestrians. They became simply park streets.

Another example is using the archetype of boulevard which is a mall, Milan's Galleria De Cristoforis. It was built in 1832. This building, with its all shining and new technological materials, was designed as a public street, promenade with luminous lights and perfectly paved promenades. As Rodofsky criticizes that "This was not the proper competition, it had every aspect of it. The public long familiar with and sympathetic to the idea of a town centre." (Rudofsky, 1969: 89) The familiarity that Rudofsky writes is the archetype of the street. This was the reduction of exterior to interior. The covered streets, gallerias, forums or parkways incomprehensibly compete with the boulevards, streets. They used the living social structure of the street but they are far away from being it. They did not have the social and visual value of the streets, they only reduced it.

In 20th century, the design of boulevards getting more traffic oriented because of the diffusion of the innovation of automobiles. Last 150 years, the separation on boulevards placed on minds. Not only boulevards, but also plans made it necessary to that separation. American traffic engineers separated their freeway, parkways to pedestrian and vehicle for the reason of safety. On the other hand, reduction in planning affected land uses to reduce commercial, residential and industrial by American traffic engineers. Urban space loses its diversity for the debatable necessities of control over crowd. In 1930's The Institute of Traffic Engineers defined the functional classification of the streets. These are:

> "Freeways: Divided highways that carry longer-distance major through traffic flows between important activity centres and have fully controlled access and no at-grade intersections.
>
> Expressways: Similar in function to freeways but may have only partial access control and may have at-grade intersections, although generally major intersections are graded separately.

> Arterials: Similar in function to freeways but with at-grade intersections and direct access to abutting property. (In practice, access is usually limited to intersections at one- half to one-mile intervals.)
> Collector Streets: Primarily provide links between local streets and arterial streets. They serve local through traffic but also directly serve abutting land uses.
> Local Streets: Primarily provide access to abutting land uses but also sere short local trips." (Jacobs, Macdonald and Rofe, 2002: 91)

Naturally, classification shows the traffic oriented street design measures. These are also helpful for building motorized, or transport design based on the pleasure of driving. The design of social boulevards that lift citizen's spirit up can be reduced to neither transportation measures nor landscape. Jacobs Macdonald and Rofe, criticize the separation through the safety measures, they state that "The concern with pedestrian safety is responsible, but it may be overemphasized, and the approach of reducing conflicts by completely separating people and cars may be counter productive." (2002, 92) Over the history, street and boulevard archetype adapted the changing environment of human, but today, it faces with the total social loss.

According to the transportation oriented design development of the urban space; modern urban movements are developed and also affected by the condition (transportation oriented interventions). Changing conditions affect not only boulevard but also the macro form of the cities. Barlas in 2006 categorized two important movements. These are decentralized and centralized solutions of growing urban macro form. On the other hand, these movements could be separated into two categories in terms of boulevard. Those who were used traditional street and who are not. There are three important international conferences which have affects on the views of urban planners. In 1910, RIBA conference was a place for planners and architects which they express themselves politically. They agreed that street is the *integral part of the city*. In 1933, the Congres Internationaux d'Architecture Moderne (CIAM) was against the RIBA conference thought. The traditional street structure was shown as a misunderstanding in the norms of new technology. In 1951, CIAM thought were moderated in terms of historical centre of the city.

However 1933 CIAM conference was important for showing the tendencies over street and boulevard structure.

According to the growing macro form and decentralization, suburban movement on cities created a problem that may be unseen but felt by both CIAM and RIBA conferences. The problem that Vidler pointed out in the later Paris example is; "the interest of strategic communication." (1978, 93) Le Corbusier's radical changes based on the abandonment of the street based structure of urban macro form, on the interest of strategic communication through the peripheries of the suburbs and centre. "Corbusier saw as the central problem of urban life the relationship between housing, in the form of super blocks and towers, and the urban freeway system that made it possible for people to move between their homes and jobs." (Gutman, 1978: 251) The solution of Corbusier is the separation of transportation and social functions of the street. Social structure of the street was segregated from the other functions of the city and transportation activity was reduced to home and job, commerce and business movement. Displaced building system covered the full plot and did not give the opportunity that people could shape their own semi-public environment. This was the creator of the boulevard of old Paris by started to make small promenades and consequently combined for public use. So, the mediator function of the street between man and environment will be lost in this example.

Boulevard and street as an urban space which gives spatial opportunities and remind us that we are social being. "The expectation of daily human contact that the street uniquely offers, and offers in a pattern of exchanges without which the community would break down, is inhibited at the risk of increasing alienation of the inhabitants from his city." (Rykwert, 1978: 15) The interventions of Corbusier and the thoughts of CIAM were the transformation of public activities to private. The interventions of the anti-street or non-street thought are dominantly physical planning measures based on; "user density, land use, pedestrian/vehicular interaction, configuration of street and context." (Schumacher, 1978: 134) This way of thinking is the reduction of community to the crops of land by the administrator. "Analogically, modern

cities are not villages that have progressed into “machines for living” and citizens are not the peasants grown sophisticated in search of profitable shelter.” (Moholy-Nagy, 1968: 33) Barlas explains the reduced features of street as:

> “First, we need the street as it is, with its surface delimited by buildings and which take us from one point to another both in time and space. Such an overall form is neither haphazard nor only mechanically functional. It has psychological connotations about the meaning of life although we may not be consciously aware of it. Second, the street provides us with the milieu for social intercourse without which we can not individually exist. Third, the street is a purposeful totality ensuring individual and collective existence.” (2006, 134)

This anti-street or non-street approach from architectures, planners or traffic engineers was the radical change for the evolving of Ancient Ritual Street to Modern Boulevard. The evolving intervention of road from the Greco-Roman world became the main urban element of transport oriented urban pattern.

Counter argument of the abandonment of the modern street started with the Athens Charter in 1933. They agreed the separation but in the historical core of the old city pattern should be protected. They did not omit the rise of vehicles and in the urban space pedestrians and vehicles should be equally integrated, especially in the core of the city. But this is a partial solution.

The counters could be separated into two categories which are pedestrianization, and non-separation, joint solutions. Pedestrianization movement is also separation in the counter perspective. Partial pedestrian areas that are connected with roads are nothing more than making displaced block and huge gardens. Although, sometimes it could be used for solving minimal problems or making beautiful promenades, its whole integration needs powerful new techniques on transportation. So, this could be a dream today.

Secondly, using pedestrians and vehicles with the help of some design features in the same space equally may be another relevant solution for our today’s modern cities. The most specific example is the *woonerf*, which came from the woonerven, and

became popular in 1970. It is rooted in Netherlands, and means pedestrian priority residential street. Limited speed vehicles, priority on pedestrians (sometimes according to the need of high movement, especially rush hours) are principle characteristics of that system. The flexible balance of automobiles and pedestrian is the advantage of the system. Some traffic measures; bumps, curves, traffic regulations help to use the continuity of the system. Example streets are also built today in Europe and United States. Peaceful structures of that system which solves the automobile and pedestrian traffic together brightens our views of near future. On the other hand, this system could be integrated through the needs of movements. Bacon divides the needs of two movements as;

> "The actual design of each system must relate to the tempo of the movement it is accommodate as well as to the general nature of the surroundings. Expressway systems require free flowing forms and curves and widely spaced articulation to accord with the rhythm of fast vehicular movement. At the other extreme, pedestrian movement systems require interest, variety, and impressions of rapid change." (1967, 35)

Modern Multi-way Boulevard's most important threat stems from the relationship between pedestrian and vehicle. Most of the interventions are *boulevard of broken dreams* like Green day's song. The traffic oriented design is the subject of mostly known pc games. The most popular game that designs a full city scene is Grand Theft Auto is based on automobile movement. How could today's child be aware of the threat and works on to overcome them if they grow listening and playing such kind of things?

It is also correct to add that, urban hygiene is also one of the important hidden factors about the place of streets in everyday life. The ways which take human beings to civilization, of course will bring some problems of civilization to the human beings. Lots of people have died because of epidemic diseases. One reason of these disease's are the dirty streets, dirty city environment. *Black Death, Great Plague in Europe* killed lots of people before the modern era. The result of the

epidemic diseases and dirty urban streets, decreasing hygiene standards was furnishing the great infrastructure system to the cities as one of the aim of Haussmann's boulevard. Boulevards, Avenues were the opportunity to build infrastructure systems because they are large public arteries of the city. Boulevard should not only be seen as simple arteries for vehicles but also for infrastructure. "Western cities are dying; it is not from too many automobiles or too few housing projects, but because of too little urbanity and too little opportunity for participation." (Moholy-Nagy, 1968: 137)

In grand manner, Today's modern boulevard faced with the problems of being a transportation route, loosing its social meaning. This reductionism on planning of boulevard is significantly decreases the social interaction along the boulevard and urban space. The aim of this thesis is to define the underlying reason of reductionism in boulevard planning and design.

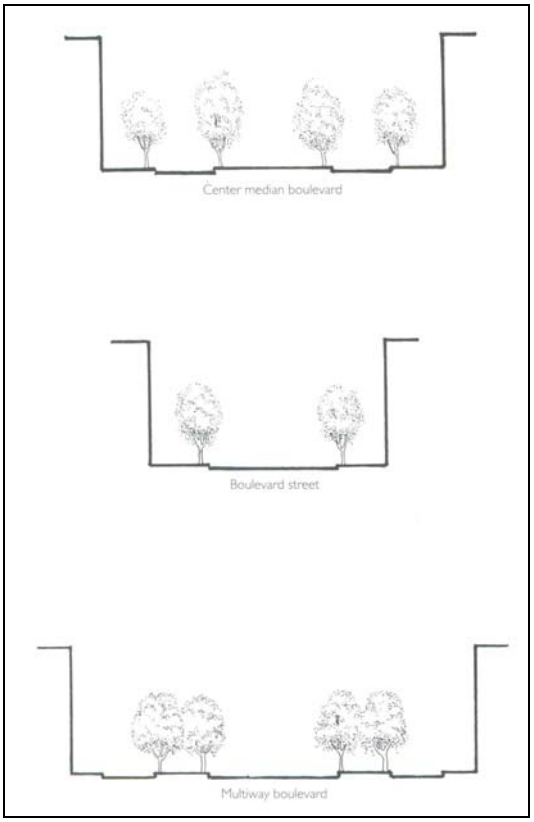

Figure 13 Types of Modern Boulevard
Source: Jacobs A. B., Macdonald, E., Rofe, Y., (2002), *The Boulevard Book: History, Evolution, Design of Multiway Boulevards*, The MIT Press, Cambridge, Massachusetts, London, England, p. 4.

Figure 14 Galleria De Cristoforis
Source: Rudofsky, B., (1969), *Streets for People: A Primer for Americans*, Doubleday & Company, Inc., Garden City, New York, p.89.

CHAPTER 3

BOULEVARD AS A COMMUNICATION ARTIFACT

Human is a social being. Spatial means of communication is an interaction between social beings and environment. The process of communication "at least two kinds of structure can be detected –here-, namely social and spatial." (Meier, 1962: 136) As it is written before, city is a place for living; includes both spatial and social needs of human. So, boulevard; as a part of public structure of city is where communication takes place.

3.1. Nature of Communication Process

The process of communication could generally be examined as the relation between human to human and human to environment. When the city is concerned, the function of environment and human in the communication mechanism should be clarified. The city is a place for human to live. So, it is easy to specify human as the main factor, element of communication. "Most often the city is viewed from the human scale - its architecture and open spaces, its jobs and other economic roles, its health and other personal services, its education and its museums, as well as the dramatic panorama of activities at its cultural foci are all *ad hominem*." (Meier, 1962: 3) This part of communication is mainly dependent to sociology because of its feature of *ad hominem*.

Environment is the place where communication process takes places. Although, environment is defined as a place for communication, its effects on the process of constructing space cannot be underestimated. Environmental sciences are the second part that helps us understand communication process. Proshansky, Ittelson and Rivlin express environment as the consequences of man's manipulation of his

environment that is strictly seen today as man-ordered or man-defined spatial structure (1970, 1, 2). "They –environmental scientists- deal with the man-ordered and man–defined environment; they grow out of pressing social problems; they are multidisciplinary in nature; and they include the study of man as an integral part of every problem." (Proshansky, Ittelson and Rivlin, 1970: 5) So, communication is the process of interaction that needs space, and it includes the whole elements that are inside that interaction.

Boulevard is a specific part of the city where communication takes place. The interrelationship between human's social interactions in space is acted in urban space when street, boulevard and their early versions are created (Czarnowski, 1978: 207). To understand the whole process of communication, both sociological and environmental issues must be defined. This part includes the multidisciplinary schema of communication process, its main categories and the problems that could be faced in the boulevard. To understand and define the problems of boulevard, communication is a helpful tool that combines both social and spatial aspects of it.

3.1.1. Basic Structure of Communication Theory

Before explaining the structure of communication, the roots of the word help to understand the nature of it. "The roots of the word communication itself derive from the Latin equivalent of common (communis)" which will be also used the express the both territorial and social meaning. (Meier, 1962: 8) It implies a bond, relation, interaction between participants in a shared space. It is also language, traditions, nationality, ideology, religion; area of residence, a group of people came together for rituals, ceremonies or other social experiences in a necessary close proximity. (Rodriguez, 2005: 30)

The nature of the schema of communication is simple and applicable, easy to group and use. It helps to understand and apply on multidisciplinary approach. It abstracts the whole process, and different disciplines could define related phases of the model.

There are two specific models from social sciences and environmental sciences, both have the same phases but the definition and terms are different.

First one is the environmental approach. The basic actors of communication process are: *sender*, *receiver*, *message* (information, Meta, data) and *channel*. (Agrest, 1978: 215, Meier, 1962: 8) In this approach space could be a channel and a place where the process is occurred. In addition, there is a specific time on both schemas. *Sender* is the resource of the process. Although, in modern cities, every individual could be a sender, there are professionalized workers for sending information. (Meier, 1962: 8) Teacher, writer, a traffic police or tools for sending information like newspapers, sign posts etc. The most important difference between today's and past urban communication activity is that, it is getting more and more intermediary tools increasingly used. These intermediary tools expressed by *machine-interposed* communication that will be explained later. (Meier, 1962: 13) Sender could use different methods to communicate; these are the different categories of communication, again to be explained in the following parts. But, the important point is, "expert senders are often able to communicate in several channel at once." (Meier, 1962: 8) For example; using gestures when explaining something verbally, using verbal language and visuals at the same time. This gives the richness of communication and intensifies the process.

Receiver is the goal for sender. It takes the information, message, and code selectively from the group or specific sender from any channel and decodes it. *Channel* specifies how information sent by which tool is used. *Message* is the definition of that goal. Communication process is not a one way activity in general. The places of sender and receiver could change during the process. According to Meier, successful communication has some requirements to take place rather than sender, receiver, message and channel. These are: "attention on the part of receiver, a common language, time- and also space- for the process takes place and one or more purposes to be served." (Meier, 1962: 8)

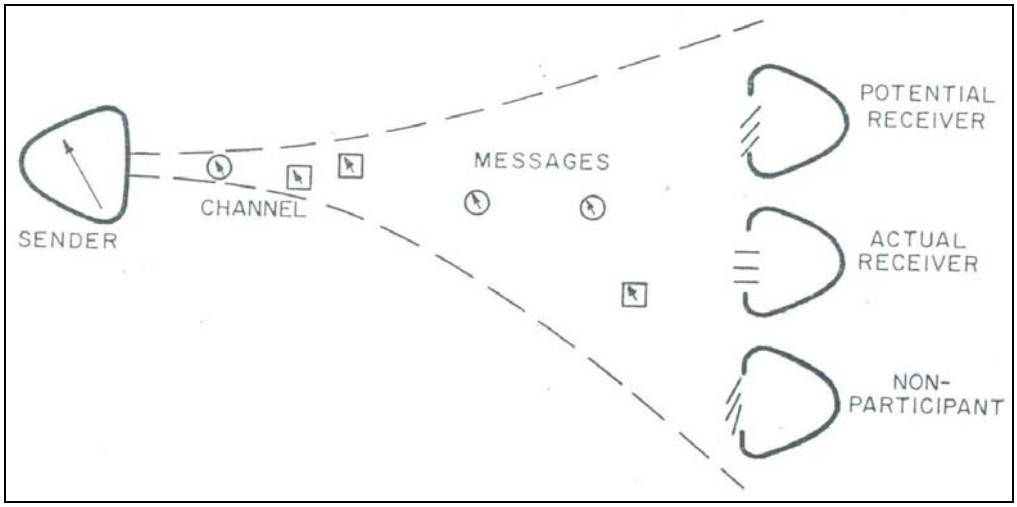

Figure 15 A simple model of communications flow.
Source: Meier, R., L., (1962), *A Communication Theory of Urban Growth*, The Joint Center for Urban Studies of The Massachusetts Institute of Technology and Harvard University, p.11.

> "Planners must be communicators, able to provide the decision-makers with clear and concise material upon which to base their judgments. The ability to communicate with the public on all agenda items and proposals is mandatory." (Gallion and, Eisner, 1978: 256)

As a communicator, planners should involve the process of successful communication. They help human being successfully socialize in the urban environment. So, they have to give attention to message and channel rather than receiving or sending messages. They should help increase the channels or give ability for participants to produce new channels for communication. In the figure 15, it seen that two channels and one message is schematized. Edward T. Hall defined the primary message system in three main concepts. These are: *sets, isolates, the pattern*. (Hall, 1959: 124)

> "The –pervasive- sets (words) are what you perceive first; the –illusive- isolates (sounds) are the components that make up the sets, while the -organizing- patterns (syntax) are the way in which sets are strung together in order to give them meaning." (Hall, 1959: 124)

What planners to be communicators are shaping the pattern in urban space and specifically boulevard? Hall's definition of primary message system is basically a

sociological explanation. It implies communication between human to human relations as we also placed it as a first necessity of urban space is primarily social.

In the urban pattern, to get socialize space speaks first (communicate) with the sets, isolations and patterns. Communication is needed to be communal. The territoriality, hierarchy of spaces has to be defined and controlled by that kind of interaction to prevent the privacy needs. This is the first and the most important rule to be a social being.

In terms of planner, designer's responsibilities, stimulus has to be optimized[9] and response[10] must be controlled. Perception, apperception, cognition is generally defined as *subjective state of individual* and *objective existence of the environment*. (Geyer, 1980: xvii) Planners can only intervene to the objective existence of the environment.

Second schema of the communication in relation with sociology is started here. The general consequences of human behavior on social environment could be divided into two. "Human beings can be described as systems in continuous interaction with the environment. This means that continuing some form of interaction with the environment – whether mainly of an adaptive or a manipulative character…-is an imperative for system survival." (Geyer, 1980: xvii, xviii) If city is a social space that is built for human to live, it should be adaptive and also manipulative for giving necessary freedom of choice. According to the changing environmental conditions, adaptation and manipulation are not relative concepts in terms of communication. It is clearly defined before; urban space is a social space. Any attempt to hinder socialization is contradictory to the nature of boulevard. Manipulative behaviors should also be examined carefully by planners to understand the necessities of society in space.

[9] The need for optimization is defined in the third part as over stimulation, under stimulation and discontinues stimulation.
[10] Actions of individual should be controlled and also they have a freedom of choice, an optimum control necessary for the social welfare of other citizens.

As it is written before, two types of communication will be explained. Firstly, schema is needed to be understood in the aspects of the problems that could be faced to examine the boulevard concept according to the spatial problems. Secondly; understanding social problems is required. In social communication schema, environment is defined as other human or a group of people. Especially; the general system theory is overlapping with the communication schema.

There are four main phases of social communication schema. These are; *system, environment, and input and output*. (Geyer, 1980: 2) The system is composed of *state function* and *decisional function*. (Geyer, 1980: 4)

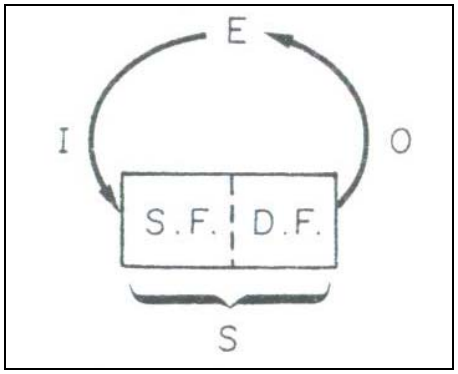

Figure 16 Main Phases of Social Communication
Source: Geyer, R. F., (1980), *Alienation Theories A General System Approach*, New York: Pergamon Press, p. 2.

The model is derived from "pre-Skinnerian behavioristic *stimulus-response model*." (Geyer, 1980: 3) Its main concepts and phases imply this model. Input is the information (message), and stimuli, which is taken from the environment, is perceived. Perceived stimuli are not objectively defined. There are conscious and unconscious perceptions. These perceptions are similar to subjective state of individual and objective existence of the environment. Geyer defines them as permanent and semi-permanent. (Geyer, 1980: 2)

> "Permanent is the information "genetically posed constrain on his information-processing capabilities,… …semi permanent… …programs, or probabilistic

> patterns of dealing in certain ways rather than others with incoming information, emotionally as well as cognitively, and changeable over time." (Geyer, 1980: 2)

Output could be defined with the sets, isolates and pattern. Output has two meanings. (Geyer, 1980: 2) These are a set or sets of behavior and the pattern of behavior in the context of environment.

State and decisional functions are the inner objective and subjective, conscious and unconscious state of individual. The dividing line between them in the figure-16 is drawn as hidden line because it is a membrane between two functions. In this schema, Geyer defines the environment as *"relevant environment"*-means a part of a total system that is the individual interact at that specific time interval-. (Geyer, 1980: 5) Relevant environment implies a territoriality in environmental perspective. This is the limits of the communication process.

The basic unit of communication is stimulus that is perceived and, cannot be easily measured. The transferred information in both types of communication schema determines the complexity of the process. Meier defines it as a *transaction* – how much successfully finished communication process is completed. (1962, 40)

> "In city many transactions are encouraged to take place between perfect strangers, in order to foreshorten the amount of time required for completion. The amount of communication needed is reduced by the specification of institutional contexts such as the market or the school, which create standard sets of expectations in each actor." (Meier, 1962: 40)

Communication is a necessity for social beings. Although, there are two similar explanation of it, the process of communication needs space. Sometimes space is passive but sometimes actively affects the inputs and sometimes defines and controls the process. The basic process of communication schema is interestingly similar to the structure of boulevard. The linear formation, a balanced tension between two polar remands us to being in the society and the essence of life itself. The overlapping functions of that similarity should be helpful to understand the

boulevard, and examining it according to the communication will help planners to intervene better. The creation of boulevard is aiming to control[11] , increase the social activity in its territory. Now, it could be helpful to categorize the main socio-spatial activities in one table to understand the process of communication in urban life.

3.1.2. Categories of Communication

Boulevard as a communication artifact includes all aspects of communication that takes place in urban life. Categorizing them from the primitive form to the most advanced techniques helps us define the general communication process in boulevard. Main purpose of this chapter is to define that process. Later, the categories of communication help us to find, if there is a problem in that mechanism, in what part of the process it emerges and what part is affected by the problem. In addition, from the following part, according to this categorization what kind of problems could be faced will be explained. The emerging problems are absolutely not because of the human nature. It is the manipulation of individuals to their environment and problems defined after their manipulations. "It indeed remains ultimately an information-processing problem of individuals, even when the information concerned comes from the environment and is not self-generated." (Geyer, 1980: 106) As it is stated before, Information-processing, "namely communication" is a multidisciplinary area. So, categorization must be multidisciplinary. This thesis works on a joint schema that is also helpful for all planning and other social, environmental, psychological sciences in terms of communication.

Hall's book of Silent Language uses an interdisciplinary major triad for explaining interaction, behavior, learning, awareness, culture, etc. (1959) Czarnowski define the categories in urban, street perspective. (1978) Rapoport (1982), Meier(1962), Geyer (1980) uses mainly linguistic approaches with giving different spatial implications.

[11] As it is seen in the creation of first boulevard of Sixtus V

Finally, author tries to combine all related works to make interdisciplinary communication categories.

There are four main categories of communication that are emerged sequentially in history. These are *formal, informal, technical*[12] and *disposal of waste production*[13].

> "Both Disciplines adopted the terms formal and informal when describing behavior patterns, management procedures, and organizational structure…
> …Having observed how these time systems are used and learned, and knowing something of their history, we realized in other areas of his life man also approaches activities as formal informal, or technical. In other words, we discovered that man has not two but three modes of behavior. Our generalizations about time had much broader applications than we originally supposed." (Hall, 1959: 86, 87)

First and earliest mode of communication is the formal communication pattern. This pattern is dependent to personal participation and non-verbal communication methods are used. Messages sent by protolinguistic signs, body language, distance regulating function (territoriality), spoken language (Protolinguistic). This mode of communication is the simplest and most widely used unconsciously from the earliest settlements to today. Gestures, mimics, territorial hierarchy, and most primitive forms of communication are used in this mode. Necessity is the personal participation to a public, semi-public activity. There are no any extra helpful tools used indirectly. "Communication in that period, with extremely dependence upon ascribed status and face-to-face meeting, was limited to the transportation of items that could be carried on one's person." (Meier, 1962: 36) As Meier states that, primitive form of communication is dependent to face-to-face interaction for the reason of perceiving and observing the gestures and protolinguistic signs. Goffman, in Interaction Ritual Book indicates that mode of primary communication is also necessary today, except from other communication categories (1967). He states that face is an image of self which is a primary ritual element in social interaction.

[12] Hall E. T. The Silent Language, 1959, New York Doubleday
[13] Czarnowski T. V. "The Street as a Communication Artifact," in S. Anderson, ed., On Streets, Cambridge, Mass.: The MIT Press, pp.206-212

(Goffman, 1967: 5) Face to face interaction which is the major tool for communication is also needed for informal communication.

The second basic mode of communication is the informal communication. This mode is dependent to spoken and written language. The language as a tool enters the communication mechanism, so it needs a common language to get communicate. This mode is dependent to verbal language. Messages sent by bodily transported and sender is spatially fixed; only the strategically situated (primary message) is sent. However, spoken language and written language could be examined differently, both use the language as a tool for directly interact on their purpose of goal. Especially spoken language has to be face to face; it gives clues about emotions and secondary purpose of the goal. As it is stated in the first part, expert senders are giving messages at same time in different channels; face is a *different channel* in spoken language. This subject is detailed, explained and defined as a problem in the following parts in relation with the environmental behavioral subjects.

Meier explaines the process of evolution of modes in communication as:

> "Cities were evolved primarily for the facilitation of human communication. At the first communication was restricted to face-to-face interaction but very quickly the need for records became obvious. Thus notched sticks, clay tablets, papyri, and smooth stone surface were marked with knives, styli, pens, and chisels according to the local code, and communication became instrumented. Music making seems to have been instrumented not too long therefore. Special social roles were set aside for the manipulators of written symbols, and all the operations became highly crafted. After written communications had become thoroughly standardized, it was possible for machine, the printing press especially, to be interposed." (Meier, 1962: 13)

Manipulation of the communication that is stated in the first part of this chapter is started with the written language. Machines are used for standardization of written data and a several control mechanisms helps that process whether they control or increase manipulation. Sophisticated communication technologies started to enter communication through the history. So, the following mode of communication is named as technical communication.

Technical communication is mainly dependent to movement and exchange of goods, messages, information. These messages mainly transmitted by a machine. So, it is dependent to machine. In references to the urban changes started with the chapter 2 section 2.2.1, distribution of services, transportation and exchange of agricultural products and manufactured goods, supply and exchange of information and data became the new communication era in terms of machine interposed communication. Such a population settled in urban areas needs and depends on products, information which could be served only with the help pf man-made machines. So, this new type of communication emerged mainly because of the necessities of human. Communication system is dependent on only necessary communication needs, in contrast to the richness of face-to-face communication. Machine interposed communication systems "encourage new syntheses of visual image." (Meier, 1962: 13) Several new sectors started to work on communication such as media, public and private transportation.

If basic unit of communication is transaction, in machine interposed communication type of communication basic unit is trip. (Meier, 1962: 59) There is a reduction in communication in terms of the primary face-to-face interaction. Movement could not a mode of communication it should be an element in previous informal case. Sender, receiver, message and channel activities converted to "an origin and a destination, a time, a purpose, a route etc. It seems likely that analysis of communication-oriented activities in the city will take a similar form if the problems of saturation and congestion are to be comprehended." (Meier, 1962: 59)

Production, transportation and movement focused communication system has important difference than primitive communication mechanism. This type of communication causes waste. To overcome the waste problem a new system of communication integrated to collect, recycle the waste. This is the last mode of communication.

Disposal of waste products is the natural result of machine interposed communication. They have different functions but this type of communication is evaluated to reduce the risks of others. The most physical example is the network of infrastructure.

All four categories of communication are listed according to historical and importance order. It should not be ignored, if there are no social beings and population that makes face-to-face communication, there is no need to integrate sophisticated communication technology. The categories are prerequisite sets of interaction.

Table 2 Categories of Communication

CATEGORIES OF COMMUNICATION	*TYPE OF INTERACTION*	*CHARACHTER OF MESSAGE*	*TYPE OF MESSAGE*
FORMAL COMMUNICATION (PRIMERY)	Personal Participation	*Non-Verbal Communication*	• Protolinguistic Signs • Body Language • Distance Regulating Function • Spoken Language (Protolinguistic)
INFORMAL COMMUNICATION(PRIMERY)	Written and Spoken Language	*Verbal Communication*	• Bodily Transportation • Sophisticated Communication Technology • Spatially Fixed Means • Strategically Situated • Spoken Language (Common Language)
TECHNICAL COMMUNICATION(SECONDARY)	Movement and Exchange of Goods	*Machine Interposed Communication*	• Distribution of Services • Transportation and Exchange of Agricultural Products and Manufactured Goods • Supply and Exchange of Information and Data
DISPOSAL OF WASTE PRODUCTS(DEPENDENT TO CONTEXT)	Recycle or Loss of Garbage	*Collect Waste of Machine Interposed Communication*	• Residue(s) of the First Three • Recycling Garbage, energy • Loss of Garbage, energy • Infrastructure network

Source: Personal Rendering from:

Barlas, A. M., (2006) *Urban Streets & Urban Rituals*, METU Faculty of Architecture Printing Workshop, p.73.

Czarnowski, V. T., (1978), *The Street as a Communication Artifact*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, pp. 205-212.

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Please see also appendix B and C

3.1.3. Stimulation Problems in Communication

In this part, potential problems of general communication schema are examined. The purpose is to identify the possible cause and effects on relations in urban space and boulevard. In the following chapter, the definitions in this part will be used to identify possible spatial and functional problems of boulevard.

Stimulus is the data that starts communication in the part of sender. On the other hand, the process is started by the attention on the part of receiver[14]. Stimulation problems are the core of communication problems that they could have effects on both social and/or spatial. Stimulation problems could be examined in three main parts.

Firstly, the sender and the receiver should be in the convenient rhythm with each others in terms of time and space. Rapoport explains that type of rhythm as *tempo* (1982, 180).

> "People may be separated in time as well as, or instead of, space and groups with different rhythms occupying the same space may never meet. Groups with different tempos may never communicate." (Papoport, 1982: 180)

The most specific example that cannot communicate is the automobile and human. Automobiles have not verbal, non-verbal language or gestures and mimics that interact. They are private machine-interposed communicators. When the different tempo is concerned, it is easy to say human and automobile cannot communicate. Space and time must be the same frequency if basic communication schema will concern. Sender and receiver should be in the same frequency otherwise, different movements in different frequency could not be faced to communicate, to be a commune.

[14] It is written before in the Meier's phases of communication (1962, 8).

As it is stated, the unit of communication is transaction in the urban pattern. The unit of social relations is the bond relation. The strongest example of this type of relation is the kinship relation. The roots of that theory are mainly ecological and social. The main underlying reason of these relations is belonging to a specific society such as same family, profession and skills. This is the specialized form of communication mainly dependent to *interaction frequency, distance and cohesion*. (Meier, 1962: 26) Especially, guilt relation is a relevant example on cyclically relations that always atomize, crystallize and dissolve. The dissolution of relation is a problem directly related to communication. The core of this process is related to different cognitive capacities of human. (Proshansky, Ittelson and Rivlin, 1970: 169) "Man can alter his physical environment either by direct manipulation of it or of its organization, or by simply shifting and changing his own position in it." (Proshansky, Ittelson and Rivlin, 1970: 169) These changes in physical environment directly affect the participants of the same specialized social structure and communication network between them. All individual belonging to that group tries to rationalize[15] that change according to their own cognitive capacities and response change according to their cognition. Same message with different implications, frequency and meaning will cause *cognitive dissonance*. "Translating again in terms of our systems view of human information processing: individuals interacting with a highly complex environment continually have to cope with the threat of cognitive dissonance." (Geyer, 1980: 106) Not only the over stimulation, but also under stimulation and discontinuous stimulation cause cognitive dissonance. This is the optimum need of stimulation that was written on the previous parts. There are three different stimulation types that cause cognitive dissonance. These are: *under stimulation, over stimulation, discontinuous stimulation*[16].

> "-Under Stimulation- Under stimulation by the environment as a whole: Environmental stimulation has fallen below a minimum stimulus threshold as far as positive as well as negative stimuli are concerned, below which the system is then forced to produce its own stimuli…

[15] Rationalization: an effort to neutralize the disturbing effect of a new piece of dissonant information on one's environmental mapping, value hierarchy, or procedural rules (GEYER: 1980, 2)."
[16] Personal rendering from, Geyer, R. F., (1980), *Alienation Theories A General System Approach*, New York: Pergamon Press, pp. 34-37.

> -Over Stimulation- Overly negative environmental stimulation: should be seen moreover by the system-individuals- as relatively permanent, unavoidable, and unchangeable…
> -Discontinuous Stimulation-Sudden discontinuation of positive environmental stimulation: …disappearance of a source of positive stimulation one has grown accustomed to… …This type of offline (offline and online functioning will be expressed below and in part of behavioral patterns.) functioning is closely related to separation anxiety and mourning process." (1980, 35: 36)

Optimum stimulation is a relative concept and hard to explain. Geyer defines it as; "somewhere in between impulsively "acting out" and "waiting for Godot." (1980, 35) However, it is hard to define individually; it is observable within the spatial context from the behavioral aspects of individual. Geyer defines two main concepts which are on-line functioning and off-line functioning. (Geyer, 1980: 37) On-line functioning is a relation between human to human which is performed mainly spontaneously. Off-line functioning is a relation between human and environment which is mainly goal oriented nature. "Planning is off-line hypothesizing in order to alter one's codes to adapt better to an environment that is supposed to change considerably." (Geyer, 1980: 34) However, the issues on planning indirectly relate to on-line functioning environment and, continue adapt off-line functioning according to the changes in economic, social, politic, natural etc. conditions. So, another stimulation problem is emanated from the cognitive capacities of urban designer and planners which will be expressed as reductionism.

Designer and user have different interaction with the environment. One, who designs the urban space and boulevard, should be aware of the necessities of user. The similar schema of movement and communication causes cognitive dissonance. Communication, which includes offline and online functioning at the same time, is reduced to movement and exchange of goods which is primarily offline. The sending of message includes trips (categories of communication). (Meier, 1962: 60) This is named as *meta-communicative messages*. (Proshansky, Ittelson and Rivlin, 1970: 142) On the other hand, messages are not only meta base, it also includes data. So, movement is substituted from communication. Designers have responsibility to create public spaces not only for movement but also communication. The basic

communication category is non-verbal communication that is dependent to face to face interaction. "In urban public life almost all the relationships start, as has been assumed here, from the interaction of strangers." (Meier, 1962: 41) The hierarchy of communication starts with verbal and non-verbal communication, before the movement and exchange of goods. The dense urban pattern has limited capacities of movement. In terms of communication, this is cause the focus of planning in public spaces. Boulevard is a place for movement and exchange of goods but the social necessity of interaction-spontaneous interaction of strangers- is not taken into consideration that is what hierarchically prior.

3.2. Spatial Behavioral Aspects of Communication in Boulevard

The primitive communication categories have spatial implications. The primary interaction mechanism of communication is face to face interaction in social environment that needs physical proximity. This is a sociological phenomenon that acts in spatial environment. As it is stated before, not only spatial but also social examinations are solely enough for explaining the activity that takes place in boulevard.

> "The intermediate position of streets-boulevards- in the environment, intersecting public and private, individual and society, movement and place, built and unbuilt, architecture and planning, demands that simultaneous attention be given to people, the physical environment, and their numerous interrelations." (Anderson, 1978: 1)

It is observed from the chapter two that boulevards formation change during the history because of the changing necessities in the urban dynamics. But, this change occurred in terms of technical communication that is based on movement and exchange of goods with a machine interposed type of interaction. The primary categories of informal and formal communication are reduced to movement. The basic needs of communication that makes boulevard a social space is not taken into considerations carefully. Rapoport express this problem in terms of defining

semiotic approaches. (1982, 38) According to the relations in the spatial environment, he defined three basic cognition mechanisms. These are:

> "Syntactics: the relationship of sign to sign within a system of signs that is the study of structure of the system.
> Semantics: The relationship of signs to things signified, that is how signs carry meanings, the property of the elements.
> Pragmatics: the relationship of signs to the behavioral responses of people, that is their effects of those who interpret them as part of their total behavior; this then deals with the reference of the signs and the system to a reality external to the system- in a word, their meaning." (Rapoport, 1982: 38)

There are lots of analysis and explanations on syntactic explanation of spatial structure, but there is not enough attention paid to semantic and pragmatic explanations. (Rapoport, 1982: 39) This is the answer of why this thesis concentrated on communication. Communication theory helps us understand the semantic and pragmatic features of space and in this thesis boulevard. Boulevards which are concerned as transportation channels by planners and designers, are losing their social meaning. The fixed featured urban elements (expressed in the following parts), hinders the adaptation and/or manipulation of environment. Adaptation and manipulation of environment helps individuals to increase their cognitive capacities. The dominant syntactic approaches on planning reduce the meaning of space and trigger cognitive dissonances. The modern city and a boulevard should have satisfied both material and spiritual needs of human. (Gallion, and Eisner, 1978: 266)

The materialistic and dominant syntactic approaches cause stimulation and cognition problems. Cognition has direct affect on response, reaction and also behavior. The stimulation problems were expressed in the previous part. Optimization of stimuli that was explained is also necessary in semantic and pragmatic levels. On the other hand, this part's mainly concerned with the response phase of communication. Planning requires to be given simultaneous attention to response behavior to control and order it, to give it a necessity of freedom of choice. In terms of communication, the primary interaction behavior is face to face relation that includes both verbal and

non-verbal communication. Goffman divides face to face behavior into three parts, but it should be helpful to categorize it into two in terms of communication. These are *social occasions* and *social situations*. (Goffman, 1967: 144) Social occasions are the specific activities that give possibility to interact. This could be acted with two types of groups. Firstly, *encounters and engagements* which are called focused interaction and generally, purpose is clear. (Goffman, 1967: 145) In other words, there is a specific goal that causes interaction. Second interaction is *unfocused* interaction which is acted as simultaneously. (Goffman, 1967: 145) *Social situation* is defined by *gathering* that could be no need to special activity. (Goffman, 1967: 144)

The aim of this part is to define, explain the social occasions, situations that occur in boulevard in relation with spatial environment. Firstly, general behavioral environment is defined, then social situation is explained with the help of proxemics, and finally, social occasion is explained in terms of main behavioral patterns of boulevard.

3.2.1. Behavioral Environment in Terms of Relations

Social occasions and situations acts in physical environment, except from some kind of machine interposed technical communication. Physical environment and organization of space have great ordering affect on situations of interaction. Boulevard has an important role in urban environment with its intermediary position on *the interrelationships between physical patterns and man's social interaction*. (Czarnowski, 1978: 207) Boulevard, hierarchically different than streets in urban environment, so, it has specific roles in urban space. It fulfill "… the need for a place common to all other places, guaranteeing access of persons and machines, of goods, light and air to those places." (Czarnowski, 1978: 208) Boulevard is a place for interaction that ordered with space. This socio-spatial interaction is reacting as behavioral patterns. So, before explaining the patterns of behavior in boulevard, it should be helpful to define the behavioral environment.

The suitable analytic expression of environment should include social, spatial and relational expressions for understanding the semantic and pragmatic levels of boulevard. Anderson (1978) indicates that kind of environment which is composed of three level of different organization typologies in one schema. These are *potential, effective or influential, and latent environment*." (Anderson, 1978: 6)

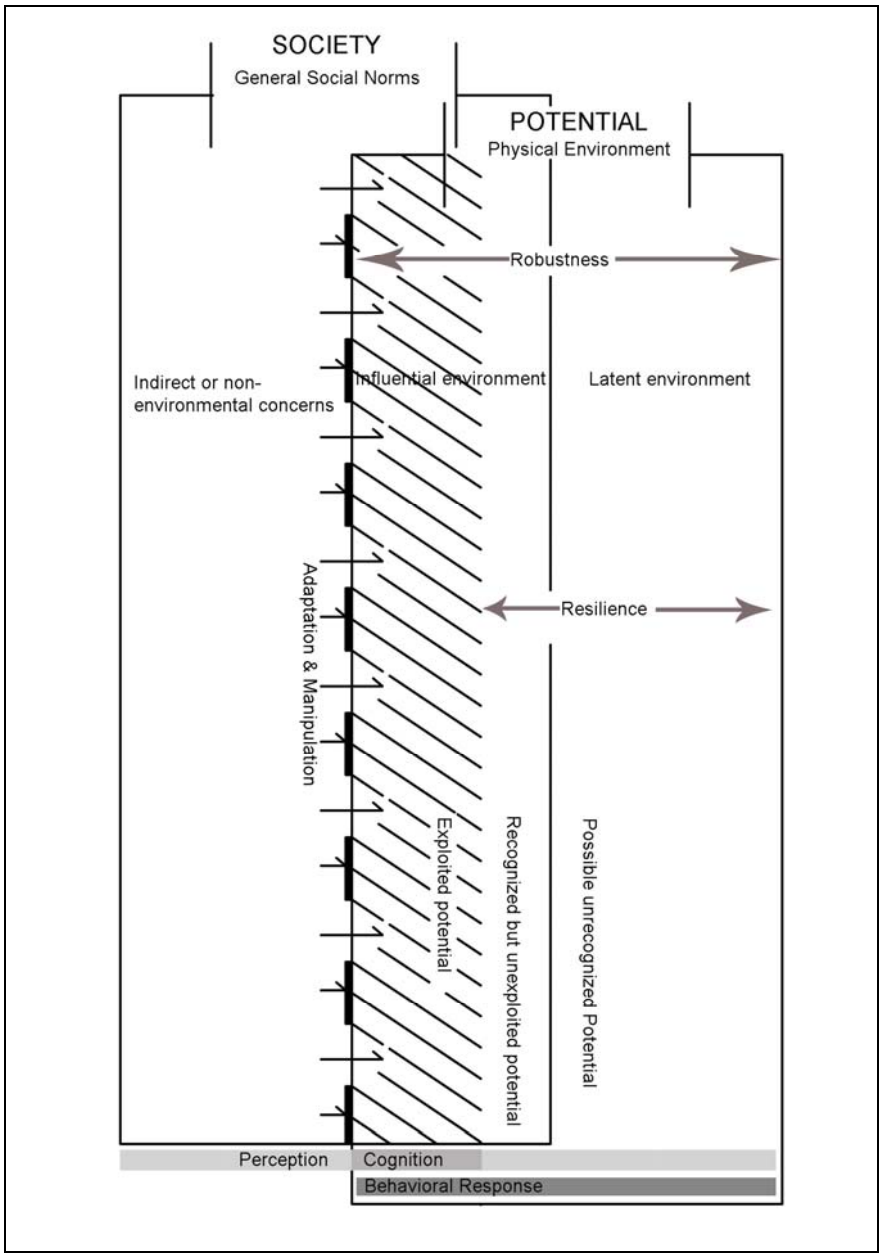


Figure 17 Social and Physical Environments yield influential and Latent Environment.
Source: Personal Rendering from: Anderson, S., (1978), *People in The Physical Environment: The Urban Ecology of Streets*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, pp. 1-12.

"*Potential environment*, the physical environment -is- an arena for potential actions and interpretations. The extent of this potential might be termed the *robustness* of the environment." (Anderson, 1978: 6) Its boundaries are fixed to individual's perception and cognition. The exploited potential is used by the individuals after cognition. Recognized but unexploited potential is perceived but not used. It is separated from a group of individual because of specific purposes but also, perceived by that group such as; an expressway and pedestrian pavement relation.

"*Influential* environment, the realized potential environment -is- that version of the potential environment that is manifested or implicitly adopted by users." (Anderson, 1978: 7) Thought the history, boulevard is in that category with its exploited and unexploited potential that can or cannot be adapted and/or manipulated by the society. This is the reason why we explain the boulevard has an intermediary position in urban social life. The main subject of this thesis is to define and explain how spatial changes ordered the cognitive and behavioural responses and, causes and effect of those spatial changes.

> "Latent environment, the unrealized potential environment; the degree of this latency together with the recognized but unexploited potential within the influential environment might be termed the resilience of the environment." (Anderson, 1978: 7)

Latency can be increased or decreased by spatial changes. (Anderson, 1978: 7) Latent environment is a place where cognitive dissonances and unperceived spaces of the environment that was written in the first part. Over stimulation, under stimulation and discontinuous stimulation causes latency.

In the crowd of urban environment, effectively exploited boulevard in terms of all aspects of communication, helps to decrease the latency. The linear structure of boulevard is also imposing the same perfectly used urban space. "On the other hand, such lines also aptly capture our separation and alienation from the natural world." (Rodriguez, 2005: 80) Separation and alienation from the environment is mainly

because of the unexploited potential of the environment and also boulevard. These are sequentially because of cognitive dissonance, environmental dissonance and finally cause psychological and behavioral disintegrations. These subjects will be explained in the last part of this chapter.

Before clarifying the behavioral patterns, the dynamics of environment and behavior have to be defined. Because, any misfits of these dynamics have caused cyclical misfits occurred. (Studer, 1970: 53) "One misfit is eradicated, another misfits occurs, and these changes in their turn set off reactions within the system that affect the state of other variables. As form and culture change, state follows state." (Studer, 1970: 53) There are four types of dynamics that affects behavior on environment. These are "(1) changes in the organization's goal structure, (2) changes in physical impingements – negatively affected changes in potential environment-, (3) changes in other stimulus domains and (4) changes in the human organism." (Studer, 1970: 68) Any attempt to change one of the dynamics is not easy to detect. The physical changes on space cause new social attitudes, because of the adaptability of human nature to his environment. So, it is helpful to examine all the spatial and behavioral changes with using a method that explains all social interaction mechanism which we called communication.

Changes in the goal structure will be defined by the environmental behavioral situations in boulevard. Changes in physical environment should have some new necessities that emerged throughout the history, so it is helpful to organize and define them in one table with the help of socio-spatial chart. (This will be the subject of fourth chapter) Stimulus domains and possible problems are defined in the first part of this chapter. Changes in human organization can be understood with the spatial perception mechanism of human being. This is the smallest social unit in the boulevard. So, it is helpful to define with the perception mechanism of human being in space.

3.2.2. Proxemic Structure of Boulevard

The human being has two basic spatial activities in nature. These are public and private activities. The organization of space is mainly dependent to the hierarchical structure and transitions between these spaces. Rapoport (1977) expresses these activities in urban environment. These are *urban public, urban semi-public, group public, group private, and family private, individual private*. In basic hierarchy, solids are privates, and voids are public. The boulevard in this schema "stand(s) as a symbol of conflate private and public domains, it nevertheless must also be the locus of the active definition of public and private- that combines urban public activities (Levitas, 1978: 230)." In the hierarchical definition of Rapoport, the smallest unit of space is individual private. Every individual have a body territory in all forms of spatial hierarchy.

> "Every living thing has a physical boundary that separates it from its external environment. Beginning with the bacteria and the simple cell and ending with man, every organism has a detectable limit which marks where it begins and ends. A short distance up the phylogenetic scale, however, another, non-physical boundary appears that exists outside the physical one. This new boundary is harder to delimit than the first but is just as real. We call this the "organisms' territory (Hall: 1959, 187)."
>
> "…the common image of body space as a bubble encourages attention to an exclusive space with its possible relations of resistance, deformation, and destructive rather than to a more nuanced space that also allows accommodation and sympatry." (Anderson, 1978: 3)

This is the smallest social-spatial boundary. This boundary is defined by the proximities between individual relations. The organization of hierarchical space that Rapoport explains is dependent to individual's privacy boundaries. The theories of human use of space are called simply *proxemics* that constitutes all categorizations of the main frame (Hall, 1970: 16). In other perspective, proxemics can be defined as communication through the ordering of space. (Levitas, 1978: 226) The necessity of space and communication in one perspective is to understand the relations and define problems of social life (it should be remembered that communication is the definition of social interactions). "In a broad view, it is clear that the general patterns of communication that sustain human organization extend to urban artifacts well

beyond the immediate context of the street- also boulevard-." (Czarnowski, 1978: 209) As it is written before, face to face interaction is the primary type of communication, and social interaction. Boulevard is an artery of the urban environment that always has possibility to face to face interaction. Boulevard is a potential environment that gives opportunity to necessary social relations. These relations need places that support proximity whether on boulevard or any other public space. "When persons come into one another's immediate physical presence, they become accessible to each other in unique ways." (Goffman, 1967: 144) Goffman implies with the word unique that context. The unique relation's efficiency is dependent to space and situations. Hall groups these spaces and gives specific distances to define the context and necessities to get interact. This approach is beneficial because it explains the human to human and human to environment relations with a joint perspective. Before explaining the spatial categorizations, it is helpful to understand underlying definition of primary message system.

There are ten categories of primary message system. The forms of the system are clearly observed in boulevard. In addition, Hall explains that the whole cultural formation is dependent to this message system (1959). These are *interaction, association, subsistence, bisexuality, territoriality, temporality,* and specialized forms of interaction are *learning, play, defense, exploitation* (use of materials). (Hall, 1959: 62) Interaction is defined as the basic instinct of human. "To interact with the environment is to be alive and to fail to do so is to be dead." (Hall, 1959: 62) Association is the interactions that have social implication. The primitive forms of these relations are defined as bond relation that is written before. Subsistence is the material requirements to be alive such as eating. Bisexuality defines the differences between male and female. Territoriality is defined the spatial requirements for the interaction and association. Temporality explains the rhythms, rituals of social life which have also includes time variable. (Hall, 1959: 62-69) Boulevard is such a unique space that covers all these attributes of primary message system.

Space is the critical issue that constitutes necessary proximity for transmitting all type of messages. On the other hand, every components of environment has different interaction capabilities. Hall states that there are three main features of space; *fixed-feature space, semi-fixed feature space, informal or dynamic space*. (Hall, 1970: 16, Hall, 1974: 214, 215)

Firstly, fixed feature space is composed of solids, immobile environment that organize behaviors, situations, activities of individuals. (Hall, 1970: 16) The basic example of fixed feature space is buildings that surround boulevard in the urban environment. Another definition is the enclosed space that varies from culture to culture and situation to situation. (Hall, 1974: 214) Interior activity of fixed feature spaces have great affect on exteriors, however it has a different place in spatial hierarchy.

Secondly, semi-fixed feature space is consisting of physical objects in the potential environment. The difference from fixed feature space is that these objects are moveable in order to increase or decrease the associational activities according to the required privacy level. The most important attribute of these spaces is keeping people apart to possible associations, interactions. (Hall, 1970: 18)

Finally, informal space maybe the most important aspects of boulevard formation. This is the space where human behaviors and potential environment are in a spontaneously active relation. Hall gives different names to different writings but the concept is similar. In 1974, he wrote informal space as dynamic space and maybe it is the most clarifying name. (Hall, 1974: 215) As it is understood from his name, there is an active, observable relation between space and social relation in that space. Every physical changes in that space affects directly social relations, associational activities. (Hall, 1974: 215) Several studies use the same analytical background to explain the "anxiety on man's perception of space." (Hall, 1974: 215) So, this kind of analytical division of space which covers space, communication, society, and behavior helps us explain the socio-spatial relations in boulevard integrally.

Categorization of space is dependent to four main territorial boundaries of individual proxemic bubble. Individual human base behavior that is ordered with space makes us to understand the possible problems in boulevard in an integrated approach. These four individual distances can also be divided into two as close and far phase. This analytical expression is used to define the possible socio-spatial problems in boulevard. It should be noted that these distances are dependent to context and also variable to the context. Intimate distance, personal distance, social distance, and public distance is four main territorial boundaries. (Hall, 1970: 21-25)

Intimate distance: Close phase of that distance is depending on primarily close relations with family members. This phase is the specific form of communication different aspect from urban environment. "This is the distance of love making and wrestling, comforting and protecting." (Hall, 1970: 21) So, the effective technique of this type of communication is unfortunately not used for public activities. Far phase is again absurd for public activities. This is used for secondary family members or much closed friends. (Approximately 15-20 cm)

Personal Distance: Close phase is the distance that person can identify clearly facial expressions of others. On the other hand, "the three dimensional quality of objects is particularly pronounced." (Hall, 1970: 23) (Approximately 50-75 cm) Far phase is the touching distance. This distance is "limit of physical domination." (Hall, 1970: 23) On the other hand, this distance is the close phase with other individuals that could be faced in the boulevard. (Approximately 75-125 cm)

Social Distance: This phase is the most important phase for our issue. Boulevard is a social urban space that individual always in interaction. So, physical environment of boulevard have to protect and support the necessary social distances and give optimum opportunity for human to human interaction. Close phase gives the opportunity for perceiving facial expressions, gestures and mimics and also verbal communication that needs for an affective (minimum level of cognitive dissonance) social relation. This distance correspond the necessary proximity for social

gathering. (Approximately 125-210 cm) Far phase is more formal conditioned behavior. "Proxemic behavior of this sort is culturally conditioned and entirely arbitrary." (Hall, 1970: 24) This phase of social interaction is another important interaction mechanism of boulevard social structure. Hall implies that kind of behavior patterns which will be explained in the following part details. The important point is that distances have to be supported by boulevard. The given distance is not strict and can be changed according to the context but the given minimum distance should be paid attention. This is approximately the general minimum standard pedestrian way distance that is used today. (Approximately 210-600 cm)

Public Distance: This is the distance of loud voice. Only the posture of human could be perceived (Approximately 600-750 cm). Far phase is the distance of full voice. This is also the full perception of public figure and landmarks. On the other hand, public distance means a leisure activity in an open space in a park rather than being in the closed space walking between the fixed feature environments (Approximately 750-… cm).

Rather than the specific measures of distances, the possibility of face to face interaction is important. The measures could be changed according to the context, culture; but the value of the social activity, face to face interaction should be supported by the space.

The distance is not the only regulatory of social activities. Time is also an important factor for gathering. In addition, dynamic space is also in movement. The speed of movement affects the social interaction. Rapoport expresses four different interaction levels in relation to movement.

> "Static: These change, but very slowly. Included are bone structure, the size, shape and location of eyes, brows, nose, mouth, or skin pigmentation- what one could call features.

> Slow: These change more rapidly and include bags, sags, pouches, creases, wrinkles, blotches, and the like.
> Rapid: These change very rapidly and include movements, skin tone, coloration, sweat, and cues such as eye gaze direction, pupil size, head positioning, and so on.
> Artificial: These include glasses, cosmetics, face lifts, wigs, and the like." (Rapoport, 1982: 97)

These are the principle categories of primitive basic interaction overlapping with the prior communication categories. Rodriguez defines the "good society" with "such commonality is necessary for order, unity" that experiences spatial proximity in order to communicate each other in an affective prior ways (that will be defined in the categories of communication). (Rodriguez, 2005: 27)

Rapoport, defines the meaning of these elements as *boundary makers, boundary markers and boundary making rituals*. (Rapoport, 1982: 2005) All elements are necessary for social rituals that make a good society. The most important problem of today's boulevard in relation with the issues of this part is that the necessary spaces for interaction of human is given for the subsistence of capitalist needs of transportation and movement of goods. The separated way of transportation (Separation problems will be expressed in the following parts) squeezes people. "The prospect of squeezing more people into the same space creates instability, not only in land value but also in urban services- and also in social interaction." (Gallion, and, Eisner, 1978: 283) The freedom of transportation is placed inside the space of freedom of social interaction. Separation results lots of new problems that will be expressed, but the social activities that are squeezed will be forced the de-centralized macro form. Public activities started to place in fixed feature environments like private activities. [17] The most specific example is the big malls in the peripheries of the city.

[17] Meier, R., L., (1962), *A Communication Theory of Urban Growth*, The Joint Center for Urban Studies of The Massachusetts Institute of Technology and Harvard University,p. 65.
Schumacher, T., (1978), *Buildings and Streets: Notes on Configuration and Use*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, pp. 133-146.

The squeezing, separating effects and results of transportation to social structure of boulevard will be expressed in the following chapter. The crucial point of this part is the boulevard as an important part of interaction and socialization; have to support the spatial requirements of social distance if and only if planners suggest another place for this purpose, otherwise, the social requirements cannot be achieved.

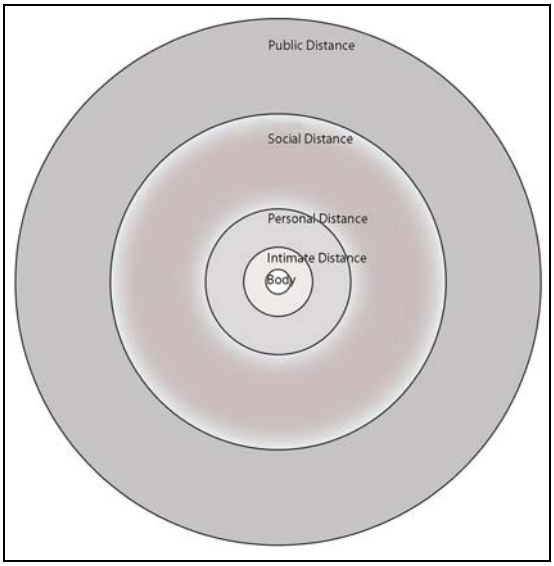


Figure 18 Proxemical Distances
Source: Personal Rendering from: Hall, E. T., (1974), *Meeting Man's Basic Spatial Needs in Artificial Environments*, ed., Lang, J., Burnette, C., Moleski, W., and Vachon, D., *Designing for Human Behaviour: Architectural and The Behavioural Sciences*, Pennsylvania: Dowden, Hutchingon & Ross Inc, pp. 210-220.

3.2.3. Behavioral Patterns of Boulevard

In previous section, proxemics structure in boulevard was expressed in terms of individual human perspective. However, in proxemical terms individual is the smallest unit in boulevard, examination thought the behavioral choices of individual makes us mistake in terms of their individual differences. This part examines behavioral structure of boulevard "behavior in general… …on at all levels of social organization." (Proshansky, Ittelson and, Rivlin, 1970: 8) There are lots of complex analytical approaches in behavioral environmental science in literature but, it is implied in previous parts of this thesis that there are two important distinct behavioral descriptions in boulevard. These behavioral patterns also explain the

activities and situations in boulevard. Geyer (1980) explains it by using terms of online and offline functioning; it is explained as primary and secondary activities in several pages of this thesis. Another explanatory definition in relation with social interaction that is our main concern came from Goffman, 1967. As it is explained before, there are two types of interaction which are called focused and unfocused, in other definition, simultaneous interaction and goal oriented interaction.

Goffman's division of interaction is derived from the general behavioral patterns in urban public space. He states that face to face interaction is the primary interaction ritual- that all other categories of communication are dependent-. (Goffman, 1967: 5) Face to face interaction is dependent to situational action, and spatial gathering needs of physical proximity. (Goffman, 1967: 142,143) Situational actions are indispensable to our primary physical needs for being alive. In addition, giving too much importance to situational actions is a threat for social life that is constructed with another important action that could be called random action.

> "I have argued that the individual is always in jeopardy in some degree because of adventitious linkings of events, the vulnerability of his body, and the need in social situations to maintain the properties. It is, of course when accidents occur- unplanned impersonal happenings with incidental dire results- that these sources of fatefulness become alive to us. But something besides accident must be considered here." (Goffman, 1967: 169)

The binding and hypnotic effect of situational, goal directed activities hides the importance of requirements of spontaneous ceremonial activities. (Goffman, 1967: 113, 114) This effect is explained by Geyer as; unconscious goals are important but, physical outputs of this unconscious stimulus have secondary importance. (1980, 52) As a result of situational activity, behavior, physical goals binds individual, and human body is closed to new experiences. So, situational activities without fateful activity cause oscillating –situational- behavior. (Geyer, 1980: 24) Fateful activities are not always satisfactorily culminated. There is always a feeling of unsafe in these activities. Whereas, the hierarchical space allows us the opportunity to safely use freedom of choice to get experience from cross-cultural communication. Hall also

emphasizes importance of cross-cultural communication. (1959, 14) This is type of communication which is between human and human without kinship relation, guild relation or any social bond relation. This is the most important way to understand the new perspectives and experiences. This type of communication is not occurring in situational activities naturally. This is a fateful action, spontaneously occurred, and depended to spatial opportunities, especially the spaces that a social distance is supported.

As it is indicated here, spontaneous, random behavior, activity is not an enjoyment; it is the necessity of adaptation to changing environmental, social conditions. It is clearly seen that physical goals are inadequate. So, fateful activity, behavior is important as much as situated, goal oriented activities, behaviors.

Moreover, "citizen spent much of his time in public, seeing many more people, including representatives of strange culture." (Meier, 1962: 35) During these public activities, when they are achieving the subsidiary goals, they should have the opportunity to random activity that needs spatial requirements. In this respect, boulevard has one of the important social roles in the urban environment. As it is indicated before, boulevard is the place for networking main dynamics of urban macro form with its density, value, activity, land use and cultural diversity. It is typical place of situated, goal oriented activity, behavior. On the other hand, it includes the spatial, opportunities to support social distance; in addition, multi structured land use for random situations. The uniqueness of boulevard is not only because of the important land use, but also, the facilities of social interaction. A planner should give attention to social distances and, opportunities of random behavior must be maximized by spatial arrangements. This gives the necessary freedom of choice of citizens to act into a random action. The freedom of choice for individuals acting, behaving in the boulevard is necessary for its unique social function.

> "Freedom of choice is a critical aspect of man's behavior in relation to his physical environment. Whatever the primary purpose that brings the individual to a given physical

> setting, the setting must not only have the capacity to satisfy the primary need and other relevant subsidiary needs, but it must also allow for goal satisfactions that are only remotely related to the major purpose… … Any physical setting that provides many alternatives for the satisfaction of a primary purpose and the satisfaction of related and unrelated subsidiary purposes obviously provides considerable freedom of choice." (Proshansky, Ittelson and, Rivlin, 1970: 175)

So, the subsidiary need to gain importance as much as the principle goals. They also indicate that these subsidiaries needs dependent to spatial settings. Boulevard provides these spatial requirements and bears as one of the most important urban element that has the opportunity to random behavior.

Unfortunately, the opportunities of space in boulevard, is attained to machine interposed communication mainly transportation and exchange of goods and products. Spatial needs for face to face communication and opportunities of random behavior squeezed to pedestrian area.

> "…the range of anti-social behavior is increased by the sheer concentration of people, structures, and activities, the possibility of coordinated activity- situated activity- are increased to a far greater extend. People who have become fully urban skilled in organization, the manipulation of other people, and in the consumption of services; they are facile in commerce, the arts, or the science." (Meier, 1962: 46)

The dominating situated behavior which ignores human's necessity of fateful actions, random behaviors is another problem of boulevard which caused by spatial arrangements. Unused spatial opportunities cause manipulations in other irrelevant urban spaces that are not dealt in this thesis.

Planner's cognitive dissonance (understanding a space without its social structure) reduces unique aspects, opportunities of boulevard to a pedestrian area, de-centralize the face to face interaction activities and decrease the opportunity of random behavior. In addition, the speed of the movement is increased for the needs of service ignoring the necessity of gathering.

All dominating needs of situated, goal oriented interventions cause the avoidance of social structure in boulevard. This is the avoidance of *patina of life* that means the avoidance of human as a social being. Boulevard uniqueness comes from its satisfactory feature of both physical goals and a place for satisfaction of social requirements. The opportunities of space in boulevard should have to be used efficiently to both human needs.

3.3. Reflectance of Spatial Disintegrations & Separation in Modern Boulevard

Boulevard permits or inhibits a certain range of social interaction with different aspects of communication. (Caliandro, 1978: 151) Space has a regulatory position on behaviors and social interaction. Because of the intermediary position of boulevard, any spatial change has great affects on social interaction along and affected area of it. As it is understood from the historical evaluation, vehicle traffic is slowly penetrated to gain a permanent place in the middle of the boulevard. This decreases social space of pedestrians and the opportunity of face to face interaction. The domination of vehicles that started with separation entered a cycle process with reductionism approaches in planning and alienation. This part aims to explain the separator affect of vehicle road and its chain affects that triggered with reductionism and finally turned into a sociological phenomenon as alienation.

3.3.1. Separation

The vehicle road, separates pedestrian area of boulevard into two, is the main problem of this thesis. Any separations of the environment decrease the social interaction by narrowing down the pedestrian area's social distance. In other words, any barrier between the sender and receiver decrease communication, social interaction in the public spaces of the city.

In the evaluation of boulevard, there could be four important elements that affect the meaning of use of boulevard especially the modern boulevard formation. These are

"(1) user density, (2) land-use -mix-, (3) pedestrian/vehicular interaction, and (4) configuration of street and context." (Schumacher, 1978: 134) The main purpose that constitute; boulevard, is started with defensive approaches and later, with the increasing necessity of transportation and social interaction reshaped it. However its change emanated from the needs of communication, increasing primary situational necessities, *noble civic purposes*[18] always dominated the use of boulevard. Automobile is the modern noble civic purpose today. Although, it seems that pedestrian way is designed for the safety a gift for poor pedestrians-that cannot buy automobile; it is a public space. Any spatial hindrance in public space cause spatial disintegration in hierarchy.

Starting with the 18th century, automobile has significantly reshaped urban environment. Boulevard became the opportunity to drive with large spatial corridor. Although, boulevard is an opportunity for drive, automobile has significantly decreased the social interaction while it supports primary needs. Firstly, vehicles are the machines that can not interact with human. As, it is stated before, it has no gestures and mimics. Human cannot guess their movement so, this cause anxiety on pedestrians. They stay away from the road. Secondly, increasing speed of movement diffuses the environment of city. Enlarging urban environment cannot be cognized by human. Boulevards are not human scale and also urban form is increased to a new mode of transportation scale. Finally, new modes of transportation reshaped the boulevard and its spatial order.

Increasing necessity on movement and exchange of goods, human and products dominated the spatial formation of boulevard. So, face to face interaction opportunities decreased and de-centralized. A new mode of face to face interaction demanded. The telephone, postal services, television, radio and finally, internet and video chat enter human social life as the needs of interaction. Absolutely, the only variable of these changes is not the automobile that dominates the social space and

[18] Czarnowski, V. T., (1978), *The Street as a Communication Artifact*, in Anderson S., ed., *On Streets,* The MIT Press, Cambridge, pp. 205-212.

boulevard. But, in terms of planning and urban design of boulevard, the major spatial problem is boulevard as an important artery of the city should afford the all needs of human being. Boulevard as a communication artifact becomes a successful "mediator between man and man, man and machine, building and building, private realm to public space." (Czarnowski, 1978: 211) In other words, it orders the boundaries of fixed featured space, semi-fixed featured space and dynamic space.

> "There exists in the world today tremendous distortions in meaning as men try to communicate with one another. The job of achieving understanding and insight into mental processes of others is much more difficult and the situation more serious than most of us care to admit." (Hall, 1959: 52)

Thorough the history of boulevard, adaptability of human beat the dominant political power and noble civic purposes. But, today situation has been changed. The binding affects of human situational needs increased the unexploited potential of boulevard. Social interaction's dimension has changed. Now, it is much more difficult to adapt or manipulate the socially reduced interaction mechanism.

3.3.2. Reductionism in Planning of Boulevard

The binding affect of situational needs also affect the purpose of design. In several parts of this thesis, it was explained as secondary activities or in other words fateful activities are as much important as situational activities. Especially, boulevard as public arteries is important opportunity for these activities. The first important reductionism is the fateful public behavior; activities as the need of social being are not taken into consideration by planners. These activities are reduced to de-centralized, specific nodes as leisure activities.

Another type of reductionism is the separation of automobile traffic. (The public transportation should have to be differed from the automobile.)

> "The politics- that also affect planning decision- that is emerging out of our increasing spatial separation is working in tandem with an emerging economics that is also legitimization and encouraging separation and fragmentation." (Rodriguez, 2005: 30)

The legitimization of decreasing face to face interaction and decreasing the opportunities on freedom of choice on boulevard space causes socially unsatisfied individuals. This is contradictory with the city which is a place for human, and human is a social being.

The reductionist approaches in planning that cause make separation, is legitimized. The legitimized process of separation by reductionism in planning makes the process cyclically. Today, material needs are much more important than social needs, and they are protected by reductionist approaches legitimized by the economic authorities. So, it is hard to manipulate or adapt the social space than before. According to cognitive dissonances of individuals and spatial disintegrations legitimized by the authority causes alienated individuals.

3.3.3. Alienation to Public Boulevard Space

Alienation is the last part of the process that binds human to public boulevard space. The legitimization of separation is because of the alienated individuals. Reduced social aspects of spatial environment cause separation. Separation of public space makes space more private and less public; so, "alienation is the hallmark of separation." (Rodriguez2005: 8)

> "…The core of our space and design is the need to exercise order and control on the word because we believe the world is in conflict with us. That is, in believing we have to order and control the world to survive and prosper, we posit a deep distrust and suspicious of the world, each other, and our own humanity. Fear, distrust, and suspicious thus permeate our space and design –reflecting and perpetuating our deepest anxieties and insecurities." (Rodriguez, 2005: vii)

Rodriguez claims that the design also has the meaning of separation. But, in terms of activities that we stated before this is prior to be survived. The separation in this thesis means the anxiety and insecurity of rapid moving vehicles in boulevard. Individuals that have prejudice to insecure boulevard experience, cannot participate the interaction mechanism both have situational and fateful meaning. Moreover, there are lots of different types of alienation in psychiatric, sociologic, ontology. When boulevard is concerned, it should be defined with socio-spatial terms. It means the limitation of interaction in the system environment due to the spatial environment[19]. The primary concern of alienated boulevard is lacking the necessary space requirement of primary social interaction (face-to-face interaction).

The reason why alienation is come about is the limitations[20]. In boulevard, limitations on space and disintegrations cause alienation. It has also effects on individual's psychology. Alienated parents have alienated learning children, and cyclical process of alienation through the separation and many more reductionism acted during the social and spatial life of human. Human as a social being have continuous interaction with their environment. Any spatial limitation in interaction on socio-spatial environment cause alienation, that is because of the cognitive dissonance. Limitations on interaction mechanism can be occurred because of under stimulation, over stimulation and discontinues stimulation. Rapid moving vehicles is also one of the over stimulation example that cause cognitive dissonance.

In addition, related to previous behavioral subject, alienation also due to dominating importance of primary goals.

> "A behavioral consequence is that one keeps oneself busy striving towards goals that are intermediate (e.g. money, status), but offer no inherent satisfactions… …The ultimate goals that link these secondary satisfactions like money and status to the primary reinforcers

[19] Geyer, R. F., (1980), *Alienation Theories A General System Approach*, New York: Pergamon Press, pp. 77, 78.
[20] Geyer, R. F., (1980), *Alienation Theories A General System Approach*, New York: Pergamon Press, p. 109.

> which were connected with one's original and "real" goals and satisfaction have been completely lost sight of the process of living- or rather being lived." (Geyer, 1980: 27)

The spatial and behavioral terms of alienation are defined. The dimensions of alienation should be defined to express the solutions according to them. In other words, the dimensions of alienation are the separating filters of individuals from face to face interaction in several ways. The dimensions of alienation have five important parts.

> "Powerlessness: the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks;
> Meaninglessness: a low expectancy that satisfactory predictions about the future outcomes of behavior can be made;
> Normlessness: a high expectancy that socially unapproved behaviors are required to achieve given goals.
> Isolation: assigning low reward value to goals or beliefs that are typically highly valued in the given society.
> Self-estrangement: The degree of dependence of the given behavior upon anticipated future rewards, i.e. upon rewards that lie outside the activity itself." (Geyer, 1959)

Spatial separation in boulevard (and also in voids of city) makes human distrust, fear from its environment. It breaks the interaction of human to environment and makes individual less social, less civil, and finally less human. Hall defines the basic pattern of learning as formal learning that is what we called the basic formal communication; he states that "formal patterns are almost always learned when a mistake is made and someone corrects it. Technical learning (this is the last in learning hierarchy as same place in dynamic space) also begins with mistakes and corrections by him or herself." (Hall, 1959: 91) The dimensions of alienation have obstructive on technical learning. In other words, when a mistake is occurred during the situational or especially random behavior, individual experience is not correcting it, negatively affecting to stop trying. This is what today's boulevard experience is. Situation of powerlessness, meaninglessness, normlessness, isolation and self-estrangement in alienation chase human from random experiences that are as important as situational activities, stated before.

Overloading of communication channels and the separating the activities with reducing the social structure causes distress and disorganization and dimension of different alienations. (Meier, 1962: 2) Boulevard as one of the multi dimensional intermediary part of the city has changed its visual image in human minds. The social activities, behaviors are spatially limited in boulevard so, a new system of uncontrolled production of cheap symbols also triggeres the alienation of individuals from boulevard and other city spaces. (Meier, 1962: 90) The most significant example of reduced face to face interaction is the internet.

Alienation and its several dimensional affects to the environment now, beat the adaptability of human to exploited potential environment. This is why it is stated as binding affects of situational activities for the reason of spatial separation. The core of the problem is the necessity of social space for face to face interaction especially random, and fatefully. Alienated individuals cannot alter this problem themselves. In boulevard that gives lots of opportunities to this interaction should have to use effectively that optimizing all types of necessary interaction mechanism. To alter the problem in boulevard concept necessary space requirements should have to be given to individuals for their freedom of choice. The environments- boulevards- not only reduce the environmental complexity "but also, produce complexity for their human environment, and therewith stimulate the growth of internal complexity (Geyer, 1980: 23)."

3.3. Concluding Remarks

This chapter is aiming to construct a communication theory to constitute a new perspective for the spatial problems in boulevard. Communication theories basically comprise spatial and social aspects, and it is helpful to understand the alienation through that perspective. Proxemics is also important keyword for combining the aspects of spatial and social communication and categories of communication. It gives clues about the distance that is required for interaction. On the other hand, the

behavior through the orientation of space is explained with proxemics. Finally, separation, reductionism in planning approaches and alienation was explained in terms of proxemics. All these are help us defining how to alter the problem that is evaluated in boulevard in near future to create necessary spatial interventions.

In terms of the previous theoretical definition, it is helpful to clarify the main five question; what, how, which, where and why. What is a city and boulevard? City is a place for social human being with necessary spatial formation for their social needs and boulevard is a potential environment for all types of interaction in an optimum degree. How? Boulevard has spatial opportunities to constitute interaction mechanism, it is a public space. Which boulevard? The boulevard which is the public artery for urban life, not only a road, transportation oriented development with machines. Where? In the core of the urban form that constitutes the main dynamics of the city, affecting, shaping them spatially. Why? It is simple, because human is a social being necessitates all kinds of interaction mechanism.

So, in terms of communication and the theory of proxemics, boulevard as a place for social human being should require the necessary categories of communication and give necessary hierarchy of distances, privacy. Without these requirements, boulevard, city become less social and social requirements start to un-control space; this is what planning and urban design mainly trying to alter.

CHAPTER 4

PROXEMICAL EVALUATION OF BOULEVARD

This chapter tries to explain how primary, formal and informal interaction mechanisms of human affected negatively by the spatial changes during the evaluation of boulevard. As it is explained before, especially in the near future, boulevards suffer from machine interposed communication that decreases the face to face interaction and makes us alienated from ourselves design.

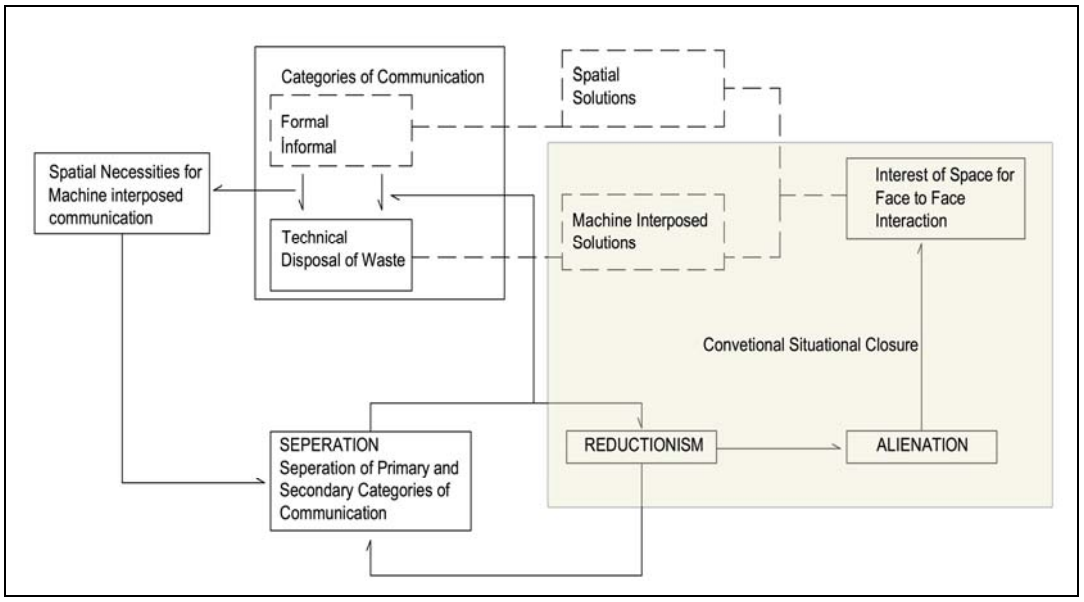


Figure 19 A General schema of alienation process in boulevard.
Source: Personal Rendering From: Goffman, E., (1963), *Behavior in Public Places, Notes on The social Organization of Gatherings*, Collier-Macmillian Limited, New York: The Free Press.

Conventional situational solutions make us blinder from simple physical problem. This is explained by Goffman as *conventional situational closure*. (Goffman, 1963: 151, 152) So, this chapter started to explain the problem in boulevard with proxemical structure which has powerful spatial implication and spatial behavior

along and across the boulevard throughout the history. The final aim of this chapter is to define the basic design criteria with the basics of proxemics.

4.1. Introduction

This part proposed a joint approach of communication theory and historical evaluation of boulevard. It examines the changes on categories of communication, proxemical theory and main behavioral patterns through the ancient ritual street to modern Multi-way Boulevard aiming to explain how alienation to boulevard space occurred during the time.

Before constructing the general table, main components of that table should be explained. In the part of behavioral patterns of boulevard, two important behaviors will be explained. These situational behavior and fateful, random behavior are initiated to two different movement mechanisms in boulevard which are longitudinal and transversal movements.

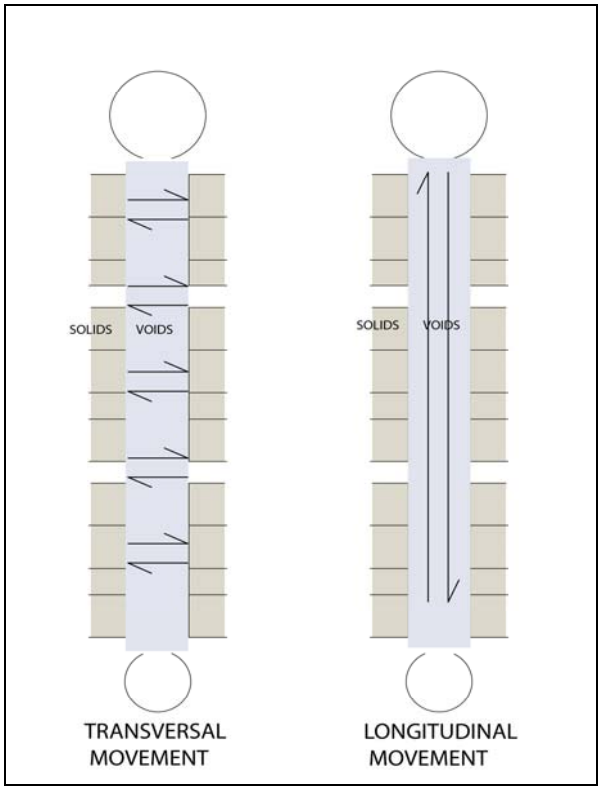


Figure 20 Longitudinal and transversal movements in boulevard
Source: Personal Rendering

Firstly, longitudinal movement is the movement between the main urban activities. It is a focused behavior. Human has a goal, and the movement is directly oriented to achieve this goal. The creative tension between the two edges of boulevard is the main generator of that movement. This is characteristically prior to situated activity, but the spatial arrangements in the boulevard could transform that kind of activity to random, fateful behavior in any time. It should be remembered that the necessity of boulevard kind spatial formation in the urban macro form constructed because of this activity. Secondly, transversal movement is between the secondary activities of two sides of boulevard. This is generally, prior to random, fateful activity. This activity has the opportunity to face to face interaction as if spatial requirements fulfilled.

Appleyard's work gave clear evidence to the theoretical explanations. However, it was in the residential area, the relation with the categories of communication is same as in boulevard schema. He indicated that the feeling of community is powerful in less traffic streets. (Appleyard, 1981: 24) As it is observed from the figure-21; when the traffic increased, the acquaintances and friends per person decreased. He expresses the distortion affect of vehicular traffic to primary communication mechanisms in terms of territorial privacy as:

> "General reactions to LIGHT and MEDIUM streets were very favorable, especially among middle-aged residents. Great pride in their home and street was evident in their remarks. On HEAVY street there was little peace and seclusion, even within the home, and residents struggled to retain some feeling of personal identity in their surroundings." (Appleyard, 1981: 24)

Heavy traffic distorts the territorial boundaries. On the other hand, the distortion has great effect on movements prior to random action, as it is evidently seen from the figure 21's decreasing relations. It is inferred from the Appleyard's work and also he indirectly stated that there is an inverse proportion between; longitudinal and transversal movement, situated and random activities, machine interposed communication and, formal and informal communication.

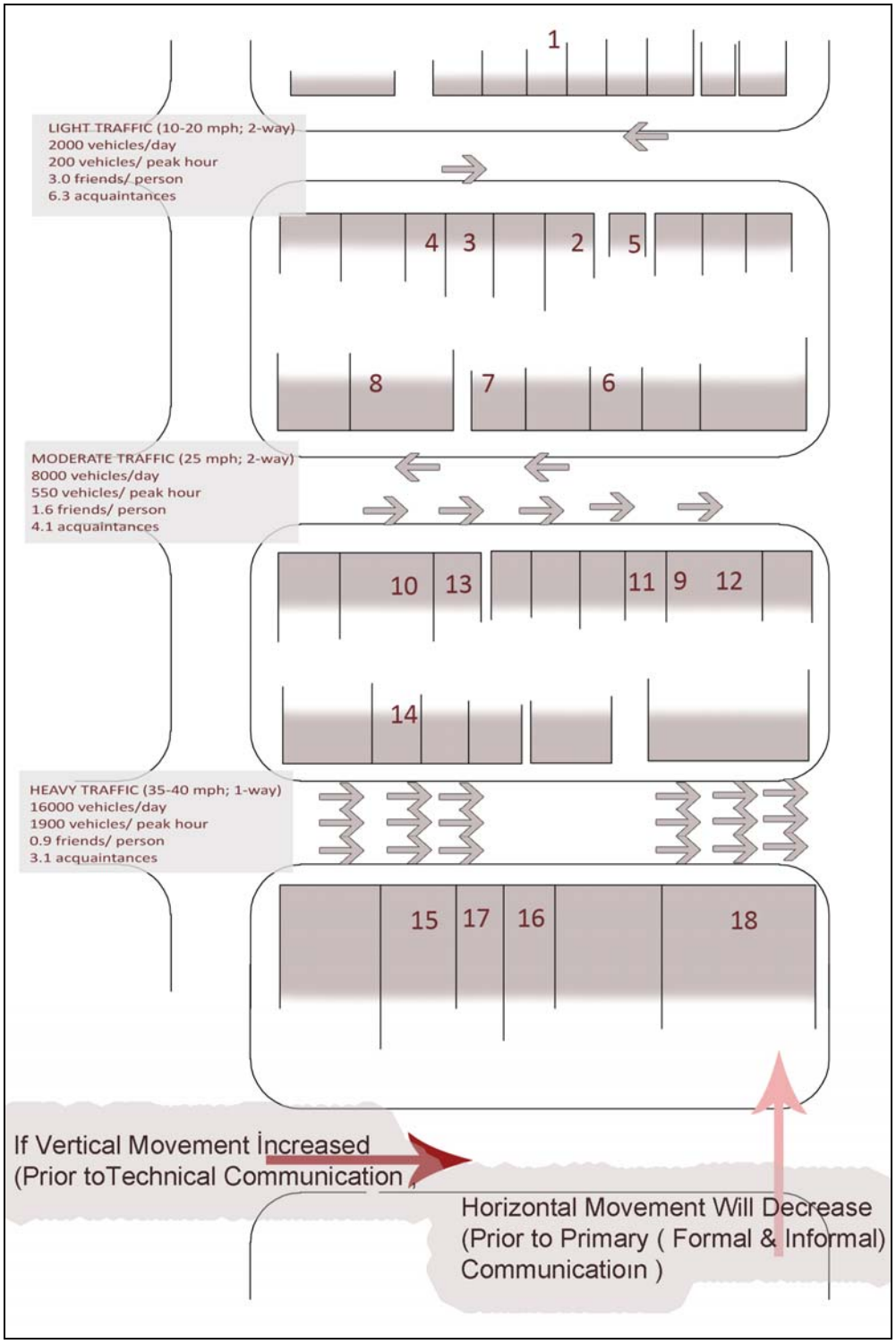


Figure 21 Relation between weight of vehicular traffic and primary communication.
Source: Adapted and redrawn from:
1. Appleyard, D., (1981), *Livable Streets*, California: University of California Press.
2. Barlas, A. M., (2006) *Urban Streets & Urban Rituals*, METU Faculty of Architecture Printing Workshop, p.73

Please see also appendix A

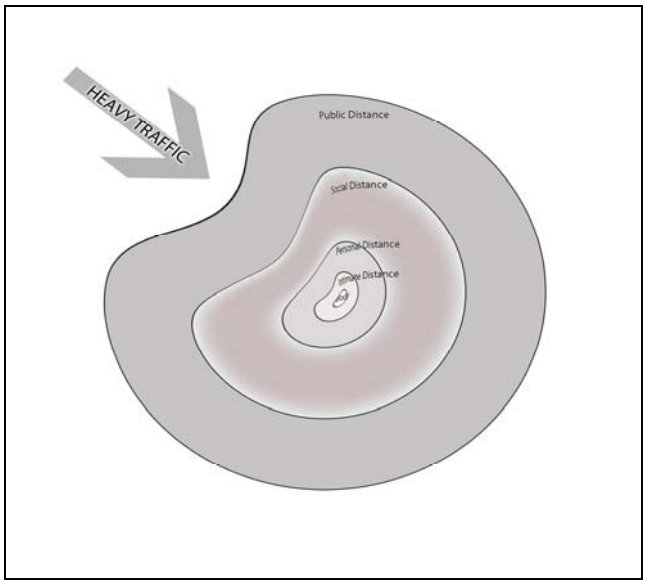
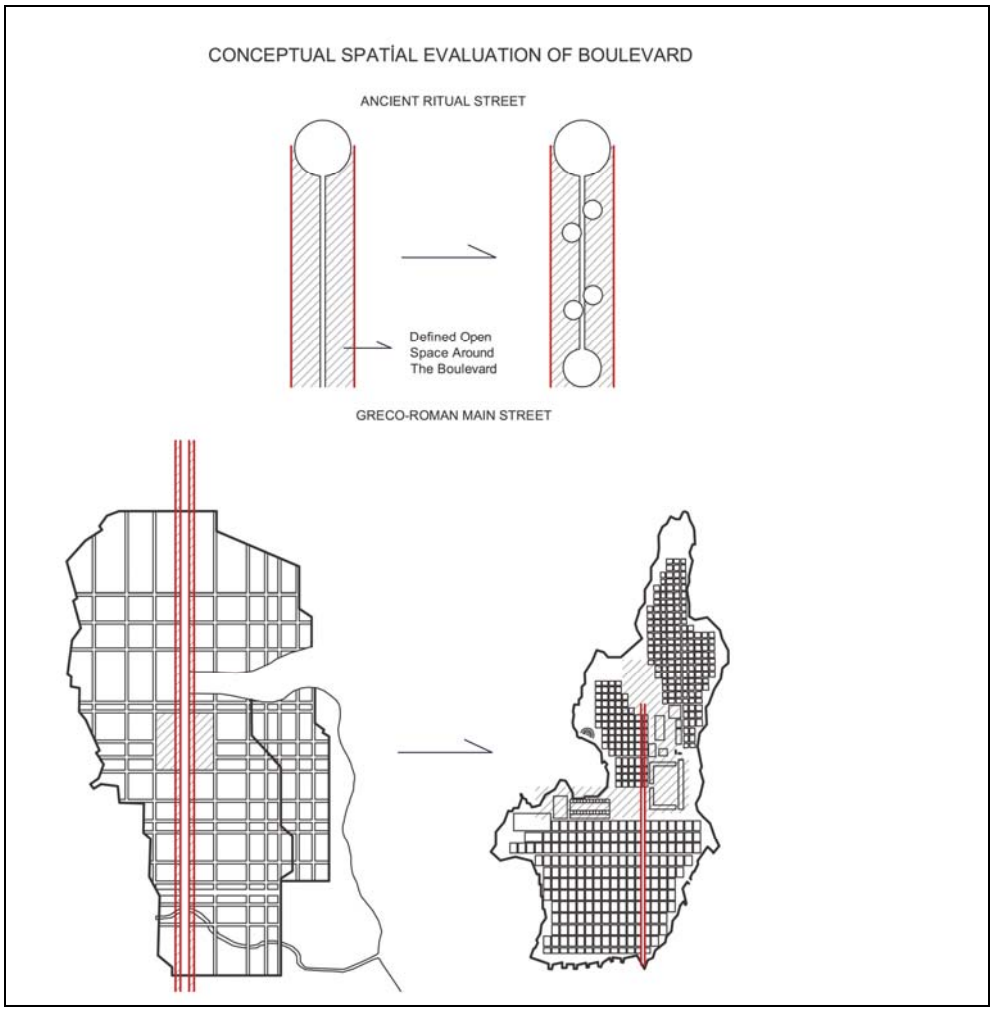


Figure 22 Affect of Traffic to Proxemical Distances of Individuals
Source: Personal Rendering From: Appleyard, D., (1981), *Livable Streets*, California: University of California Press.

It should be remembered that both of the activities have critical importance to urban public life. They should have equal opportunities, importance and solutions have to pay attention to both of them equally. In addition, any longitudinal movement could be transformed to transversal movement, and the transformations between these movements have also the critical issue for an efficiently communicating artifact, boulevard.

The two fateful and situated behaviors in boulevard simplified as spatially longitudinal and transversal movements. These movements constitute the column of the table in our analytical expression. Rows are the four historical stages of boulevard that was expressed in the second chapter. These are ancient Ritual Street, Greco-Roman Main Street, Middle Age Boulevard and the modern multi-way boulevard. Before explaining the analytical table, the examples of the second chapter will be schematized by the author, according to the proxemical theory. Firstly, the schemas of examples explained, later, according to the chapter 3's theoretical perspective, the opportunity of social distance requirements and the

availability to face to face interaction is examined and finally, the grand table is drawn for expressing the problems of boulevard during its evaluation process.



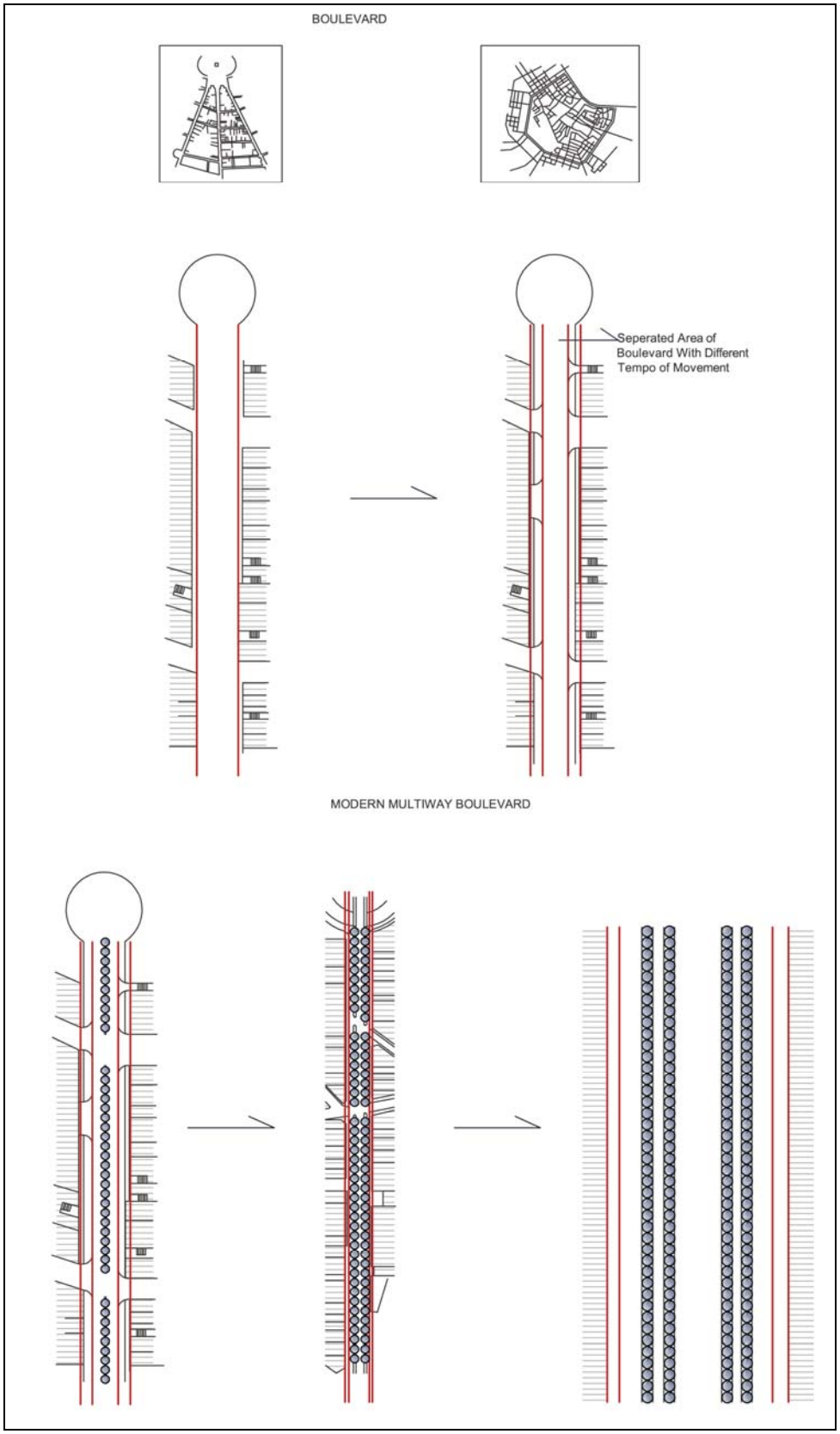


Figure 23 Conceptual spatial evaluation of boulevard in history.
Source: Personal Rendering

Firstly, to understand the separator effect of vehicles, it is helpful to conceptualize the historical stages of boulevard. In the ancient ritual street, the ceremonial way is a defined open space with natural substance like big stones, trees etc. So, the surrounding space is not only defined space but also gives necessary social distance to get face to face interaction. In Greco-Roman world, boulevard space is defined with buildings. Territorial needs also satisfied along the boulevard and in public squares. The main difference of the boulevard from ancient Ritual Street is not being only used for ceremonial activities, but also being used for situated transportation aim. In the late middle ages, the strict separation of pedestrian and vehicle is started to be seen. There are no surrounding open spaces and also pedestrians are squeezed by buildings and vehicles. Modern multi-way boulevard is only the advanced form of that separation, and finally, conventional situational closure is emerged.

It is stated before that the blinding affect of situational activities, behaviors have great affect on alienation process. To alter the problem, random activities are the critical point that is generally defined as spatially, transversal movement. So, with the help of conceptual drawings, the key feature of face to face interaction availability for random activities could be schematized in each age.

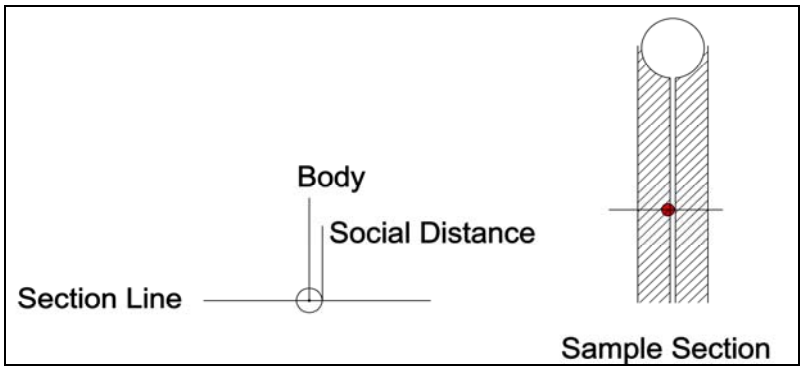


Figure 24 Schematic explanation for calculation of social interaction in boulevard
Source: Personal Rendering

It should be emphasized that the decreasing mode of communication is formal and informal communication because of the different tempo of road that is squeezing the

pedestrians' social distance. It should be remembered that the problematic effect is the changing mode of communication from formal and informal communication to technical communication. In addition, it is inferred from the graphics that the open space between the pedestrian areas is also decreased, and squeeze pedestrians. So, in ancient ritual street A-B difference is lower than others. The first two graphics are convex, because of the availability of use of the whole space; in contrast, last two graphics are concave because of the roads separator affect of social distance.

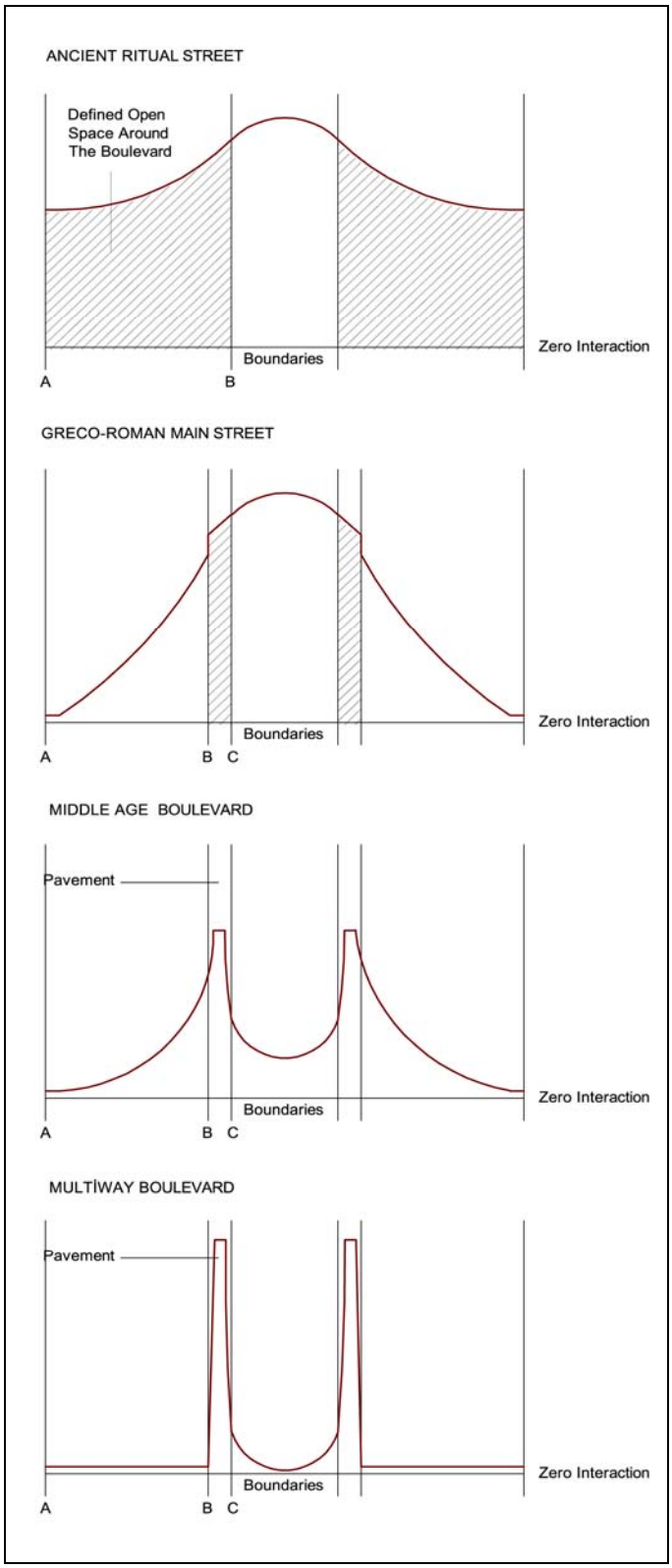


Figure 25 Sections of face to face interaction in boulevard
Source: Personal Rendering

The schema of face to face interaction helps us to understand the main problem. In terms of categories of communication, the problem is the changing mode of communication. In terms of proxemics, categories of communication and, environmental behavior, the loosing social distance causes the blinding affect of increasing situational behavior. All these definitions have to be examined integrally. So, the grand table includes all these variables in each cell to understand the problem of communication throughout the history. This method helps define the core problematic spatial interventions and guide planners for boulevard design as spatial criteria's.

The main separation problem, the road that separates pedestrians into two pedestrian ways and squeeze social distance of them is started from the late middle ages. So, in Ancient Ritual Street and Greco-Roman Main Street, longitudinal and transversal movements are examined as wholly. Although spatially not separated, the aim of the movement in ancient Ritual Street, Greco-Roman Main Street plan is different. Because of that reason, grand table is started to drawn a hidden line. In addition, table emphasizes that the spatial arrangements in longitudinal and transversal movement is different. During the longitudinal movement, it is possible to attain public space that supports social distance, but during the transversal movement because of the nature of boulevard formation, it is not possible. The possibility of public featured stimulation decreases during the time. Because of this reason in modern Multi-way Boulevard, discontinues and over stimulation is much possible rather than Greco-Roman Main Street. Moreover, fixed feature space, is affective after the ancient Ritual Street and new categories of communication enter our table from the Middle Ages. The only common point of the table is that situated behavior in boulevard both during the longitudinal and transversal movement becomes dominant.

Table 3 A Grand table of communication and proxemics throughout the historical evaluation of boulevard

Movement / Time	ANCIENT RITUAL STREET	GRECO-ROMAN MAIN STREET	MIDDLE AGE BOULEVARD	MULTİWAY BOULEVARD
f(x) Longitudinal Movement	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance Disintegration Discontinuous Stimulation 3)Behavior: -Random Behavior -Situated Behavior
Seperation Between Movement				
f(y) Transversal Movement	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior	1)Categories of Communication: -Formal Communication -Informal Communication -Technical Communication -Disposal of Waste 2)Proxemic: -Fixed Feature Space -Semi-fixed Feature Space -Dynamic Space --Intimate Distance --Personal Distance --Social Distance --Public Distance 3)Behavior: -Random Behavior -Situated Behavior

Availability
Seperated
İntegrated

Source: Personal Rendering

4.2. Behavioral Movements on Boulevard, In Terms of Changing Spatial Communication

4.2.1. f(x) & f(y) In Ancient Ritual Street

The purpose of the use of the street is simple. The ceremonial purpose of using is observed from the schema. The situated behavioral activity along the longitudinal movement is clearly observed. On the other hand, there are equal availability between activities of longitudinal and transversal movement and situated and random activities. The archetypical usage and form of the street allows simple environment that is available for social complexity. The tempo of movement between the activities enables the transition between behaviors. Apart from separation of movement in terms of analytical case, the transition harmony gives required social environment. The core of separation in boulevard case that is stated before is the compulsory separation of different tempo of movement.

As similar to the simplest layout of the street, the categories of communication is also in basic mode. The informal and formal communication is available at that time. The basic structure of communication makes it obligatory to face to face interaction. This requires proper territorial structure, and structures the environment in terms of the territorial, proxemic necessities. On the other hand, the main difference from other stages is in the elements that constitutes the proxemic structure. There were not any fixed feature elements that define the route, however, the orientation of space is provided by the semi-fixed feature elements. Dynamic space without the boundaries of fixed feature increases the use of potential environment and the use of it without separation according to the rhythm of movements. Longitudinal movement along the route is generally situated character, transversal movement is generally signifies the random behavioral activities.

In terms of all the aspects of communication, the ancient ritual street is almost an ideal space structure for human as a social being. Although, the nature of social

being is not changed, the necessity of communication and increasingly compulsory situated activities changes the environment of ideal first basic modes of Ritual Boulevard.

4.2.2. Movements in Greco-Roman Main Street

In Greco-Roman Stage, their main street as similar today's multi-way boulevard is started to use for the purpose of transportation. Greco-Roman main streets are ceremonial streets which opens to the core of macro form, as well as it s a collector of pedestrians from the peripheries of the city.

The difference between the means of longitudinal and transversal movement began to change at that age with the purpose of transportation. Although the tempo of the movements is not different, the purpose of movement makes that separation. But this is not a separation that causes alienation, because the tempo of movement is not different. Because of the different purpose of movements in Greco-Roman Main Street, it should be helpful to start to examine the movement in different headings.

4.2.2.1. f(x) in Greco-Roman Main Street

The longitudinal movement is defined by the fixed feature elements, and affectively used in the layout of the cities. The advantages of such space as a communication channel for the city is used in trade, transportation, defense as a gatherer, distributor of the spatial activities.

In terms of categories of communication, it is not possible to talk about any technical communication; the prior interaction mechanism is formal and informal communication but the use of animals starts creating a new tempo of movement. The main spatial difference from the Ancient ritual street is the frames; boundaries of the boulevard space were defined with the buildings as categorized in the fixed

feature space. Because of the nature of the longitudinal movement, activities are priory situated behavior.

In addition, another difference from the Ancient Ritual Street is different spatial places of the core of public spaces. In Ancient Ritual Street, because of the ceremonial purpose the open space is the finisher of the street. But, in Greco-Roman Main Street, because of the transportation purpose the main public area is in the middle of the street. So, it is easy to determine the aim of that spatial change is the increasing requirements of communication. As, it is written before, the balanced tension between the edges of the boulevard is the generator of the activities. If the territorial requirement is reached, it increases the possibilities of social interaction.

4.2.2.2. f(y) in Greco-Roman Main Street

The transversal movement at that stage of boulevard started to be shaped by the buildings and fixed feature environment. The designs of buildings have very powerful implications which are related to the prior behavior of random activity of the transversal movement. This is the portico that was explained in the second chapter, the intermediary, semi-public position of portico that is mostly built by more public areas nearer to core of the boulevard. The portico is the strongest evidence of the face to face interaction that is primarily used for communication.

The most important spatial difference from Ancient Ritual Street is again the boundaries of boulevard. The clear definition of fixed feature elements gives adequate social distance at that stage, but later with separation of the transversal movement that is cut down with longitudinal movement limits the social distance.

4.2.3. Movements in Middle Century Boulevard

Middle Century Boulevard is the origin of the first boulevard spatial formation. Unfortunately, the name of boulevard is emanated by the changing necessities of

defense. It is not a civic necessity but the result of the situational, compulsory changes in life is adapted and manipulated by human as a civic spatial formation. The ceremonial purpose of use and the use of transportation of goods and products are spatially separated at that age. The alles, cours and later boulevard have social implications, on the other hand the roads, avenues have built for transportation and exchange of goods and services for the increasing density of population live in urban areas. The boulevard arose as the combinatory space for all kinds of communication mechanism in urban life. This is the reason of this thesis why examining it in terms of communication. The increasing population density in cities made it compulsory to bigger solutions for civic life. The walls of the cities are collapsed by their own dwellers and planners. The increasing necessity of space because of the increasing population density, as a requirement for all types of communication the space left from the walls gave great opportunities. So, boulevards are the new kind of solution, a new tool for planning, is started to use in terms of the real modern meaning.

4.2.3.1. f(x) in Middle Century Boulevard

Open space after the collapse of walls of the cities is an important opportunity for longitudinal development of boulevard. It became a communication route from the core of the city to rural peripheries in terms of transportation and social interaction and also the wastes of these communication mechanisms. The new forms of communications are started to emanate with that age because of the new spatial opportunities. Because of the needs of bigger urban macro form, the city form went beyond the limits of human scale. The first form of alienation was started to be seen (powerlessness). So, the formal and informal communication started to loose their spaces, however the boulevard bear as the opportunity for primary communication mechanisms. In terms of longitudinal movement, as a fixed feature element, walls that squeeze the communication are demolished. On the other hand, the enlarging dynamic space started to be loose the human scale and, public ad social activities dispersed along the boulevard with different open spaces. The loosing human scale decreases the interaction to potential environment. This triggered increasingly use of

space to situational activities. The most specific example of the situational purpose of design is the Sixtus' Boulevards. The boulevard is used as a tool for the significance of power in the Early Medieval Age.

The longitudinal movement at that era could be specified into two. The first one is the purpose of transportation the other is the purpose of social activities. As it is written before, boulevard constructed to situational purpose of defense or feudalism. In support of these situational purposes, it also has spatial opportunities for social distances. This gives the necessary space requirements when the masses of urban form increasing. Then, boulevard space spatial opportunities adapted and manipulated to the civic purposes. Finally, in the lights of other historical changes that are written in the second chapter, the technical communication of avenue and the formal and informal communication of the alles combined and constitute the boulevard as a communication artifact.

4.2.3.2. f(y) in Middle Century Boulevard

Indirectly, changing along the boulevard has great affect on transversal movement in boulevard. Naturally, collapsed walls gave an extra space for longitudinal behaviors. But, as it is seen from the figure 23, the pavements emerged along the two sides of boulevard. The longitudinally gained space, attained to another mode of communication. These separations mitigated the transversal space and also spatial requirements for social distance of face to face interaction. Moreover, fully plotted big buildings decreases and squeeze the pedestrians in another façade. All these changes on fixed feature space decrease the dynamic space. It could be possible to evade a direct proportion between the dynamic and fixed feature space. If the fixed feature elements increase, dynamic space requirements for social interaction decrease to the limits. When the limits of social distance exceeded, it is not possible to eventuate face to face interaction. When the blinding affects of situated behavior that restrain awareness, will be added; the situation of design became a *Gordion Knot*.

On the other hand, Middle Century Boulevard, in terms of social distance requirements is fulfilling the face to face interaction activity. Random and situated behaviors are balanced. In this era, the space of boulevard is free for the confinement affect of vehicles yet. The middle part of the road is almost safely penetrable for pedestrians.

4.2.4. Movements in Modern Multi-way Boulevard

Modern boulevard is a communication artery of today's urban life in all aspects of communication. It is an affective tool for altering the urban problems emerged after the industrial revolution, especially, growing architectural cities. These problems and changes are summarized as: "fast growth of city, industrial growth in the city and pollution, housing, transportation and infrastructure, high densities and congestion (Günay: 1988b, 24)." All these changing and problems could be explained by communication theories that were written in previous chapter. Because of the fast growth of cities, the units of urban form needs to get more communication requirements or in the limited space, the increase in the communication technology that is named as technical communication. The transportation and infrastructure supported by technical communication because of the hindrance of over stimulation affect of high density and congestion.

Increasing needs of communication because of the congestion, requirements of space were provided by the demolishing the walls of cities in one hand, because of the changing military technologies. The original boulevard is an efficient tool for solving the congestion problems if necessary traffic regulations are applied , including all forms of communication with combining the social, ceremonial and transportation, technical communication necessities. Unfortunately, the increasingly congested city space made it hard to get communicate. Urban form has been denser and denser day by day. Situational needs getting harder to reach. Every passing day,

boulevards social space attained to technical communication. The modern multi-way boulevard's spatial formation is a natural result of these congestion changes.

From the horse drawn carriers which are used in the city streets, the tempo of the movement had changed. In 1885-86 with the first patented automobile, the tempo of movement between pedestrians and transportation with automobile never is the same again. Starting with 19th century, automobile has changed the space of boulevard. The mass production of automobile and affordable cars increased the use of it. The separation between the pedestrian and other rapid moving vehicles increased. The priority of movement in boulevard is given to that new transportation technology and designs ordered by them. An access road way is entered to boulevard design. "It provides space for parking, slow vehicles, and pedestrian movement; it makes street crossing shorter and easier; it provides city and local inhabitants with an open space amenity; and it buffers abutting properties from the pollution, noise and psychological impact of heavy traffic." (Jacobs Macdonald and Rofe, 2002: 216) However, every intervention narrows the available social space of boulevard. Finally, loosing social distance and increasing necessity of social interaction made an alienated spatial formation. As it is explained before, the integrity of the behavioural activities, movement is vital for social beings. The boulevard with its spatial opportunities that, converted to avenue means a great negative impact on the social structure of urban life.

4.2.3.1. f(x) in Modern Multi-way Boulevard

f(x) movement in modern multi-way Boulevard is dominantly situated behavioural activity that is categorized under the technical communication because of the use of machines (automobiles). As a result of the impossible formal and informal communication inside the vehicles, dominantly technical communication is available. Moreover, the infrastructural requirements and disposal of waste products also longitudinally move. Mostly formal and informal needs of communication solved disintegrated nodes. The disintegration and discontinuous stimulation on the proxemical structure of modern Multi-way Boulevard were the important factors of

alienation. The longitudinal movement also lost its situational purpose of reaching another edge of the boulevard. The longitudinal movement also alienated to purpose of technical communication from transportation that is why it's named the binding affects of situational purposes that is self-dissolved. Technological changes increase the speed of transportation. The activities that constitute the boulevard main situational spatial formation dissolved along the longitudinal space. So, the boulevard, a communication artefact in terms of all categories of communication, is reduced to an avenue in spite of the technical communicative needs with destroying the generator situational activities.

4.2.3.2. f(y) in Modern Multi-way Boulevard

It is observed in figure 23 that, there is a strict separation between the two edges. This separation hinders the transaction movement between edges from one side to the other. As it is stated before the core of the separation; the threshold is the tempo of the movement, and the aversive affect of it. Naturally, the strict separation made human compulsory to behave longitudinally. As a result of compulsory movement, human conditioned himself/herself to finish his/her job. A focused movement that is namely situated behaviour, activity.

As it is seen from the figure 25, there are two strict longitudinal movement choices with strict barriers and no room for social action, face to face interaction. Compulsory situated behaviour squeezes the social activity, and reduces it to two edges of boulevard. The only possible choice for social interaction, random behaviour, if the distance is suitable; is one side of the boulevard. In addition, separating the pedestrian movement is also reduces the spatial requirements of random activity. Moreover, in figure 23, the last schema of Multi-way Boulevard includes several new transport routes that the necessary space for new way is gained from pedestrian areas. In terms of the grand table, formal communication that is the nature of social being is hindered by the spatial interventions throughout the history. Social and public interaction is not available along the boulevard space. The

suburban development is the evidence of that needs. On the other hand, in terms of behaviours, activities compulsorily, blinding situated behaviour finally, hinder the random behaviour that is as necessary as situated behaviour. In reference to 19, and from the theoretical understanding; alienation is a social problem that is because of the spatial interventions and the simplest solution for altering the alienation is re-gaining the spatial requirements of social distance.

4.3. Designing Boulevard

The main problem of this thesis is that the boulevard transformation to an avenue. A social space in every aspects of communication has been reduced to transportation purpose of use solely. However, boulevard is not only a transportation tool. It is a public, social space for urban dwellers. It is a spatial communication tool in every aspects of communication.

For altering the problem, design criteria's derived from the proxemics and communication theory; planners and designers rediscover and regain the social structure of boulevard. For the better understanding, in terms of the thesis analytical approach, criteria's are examined into two main movement mechanisms.

Designing Longitudinal Movement in Boulevard:

- Boulevard must include all categories of communication without competing between them. Transactions between the categories must be supported spatially and functionally.
- Boulevard must have a balanced tension between the defined beginning and ending to create the necessary situational purpose for the active dynamism in day and night.
- The tempo of movements of different communication mechanisms must be compatible to pedestrian movement. Otherwise, difference triggered the separation and alienation. For this purpose, rather the usage of rapid moving

private cars, compatibly speeded modes of public transportation must be preferred.

Designing Transversal Movement in Boulevard:

- The movement mechanism of boulevard is integral. Like longitudinal movement, transversal movement is not separated into two edges of the boulevard.
- The transaction between the situated and random activities must be equated and supported with the sets, isolates and patterns of pedestrian amenities.
- The territorial, spatial requirements must be appropriate for social interaction.

Another explanation of the problem in boulevard is the increasing situated activities. The situated and random activities are equally needed for social beings. All the criteria's are derived from the proxemical needs and aiming to equate the marked difference between random and situated behaviour. In terms of planning and design, the core criterion on boulevard design in terms of communication is;

All categories of communication exist without annihilating others, as same as the balanced tension between the two edges and sides of boulevard, categories of communication distributed in well-balanced spatially. Any interventions on boulevard; that affect one category of communication have to be balanced with the counter intervention.

The planners and designers must be aware of the necessity to equally attributed space in terms of proxemics, categories of communication, and behavioural movements as the essence of their design.

CHAPTER 5

A CASE OF ATATÜRK BOULEVARD, ANKARA: FROM A BOULEVARD TO AVENUE:

The aim of this chapter is to examine the Atatürk Boulevard in light of the communication concepts that are explained in the theoretical chapter. If the Atatürk Boulevard was a boulevard like formation, the examination should be focused on the last spatial transformation. In this chapter, it is examined that how today's boulevard conditions are shaped according to the last spatial interventions. Is it protecting its boulevard status or is it changing? For this purpose, the historical ritual, ceremonial values will be explained; the balance of longitudinal and transversal movement and, the spatial opportunities to make these movements will be examined. During the examination it is important to define that how categories of communication is changed and how it is affected to movements, behaviours.

The ritual meaning of boulevard is underneath the independence revolution. Ankara is the capital of Turkey and, the Atatürk Boulevard constitutes the spine of the capital city. It is the modern face of new social life. It is the beginning and a sample development project for the young republic after the Independence War. It has a powerful symbolic value of the Republic of Turkey. The boulevard has a rural character in 1920's. Mustafa Kemal Atatürk used that rural road to reach the parliament building from his house. (Keskinok, 2009: 37) After the Independence War, all new values of modern republic are acted and created along the Atatürk Boulevard. It is seen as a way to be an independent republic.

As it is intended before, the main difference between boulevard and an avenue is the rural or urban attributes of them. The boulevard has urban attributes. But, Ankara Atatürk Boulevard started its life as a rural road. On the other hand, because of its

symbolic meaning and development process it is similar to boulevard formation. To understand it better, it is helpful to explain the establishment and development history of Atatürk Boulevard.

5.1. Creating a City with Boulevard

The history of boulevard could be classified under the several administrative, planning, economic, politic criteria's but, the crucial point is the main formation, interventions and rituals, ceremonial needs, and also how the social structure of the boulevard has changed during the time.

Ankara settled in the middle of the Anatolian Region. It is a small town with its geopolitical importance, approximately, 30.000 settlers in 1919. (Dinçer, 2009: 11) In, April 23, 1920 *Türkiye Büyük Millet Meclisi* (Turkish Grand National Assembly) was declared. Ankara started to gain importance after the declaration and became the capital city in October 13, 1923. In October 29, 1923, with the declaration of republican regime, Ankara became the face of revolution. A new regime which comes with the revolutionary changes in all aspects of young republic. A new, modern republic's sample development area is naturally the capital city. The transformation was not only the administrative, but also in social individual life. New social rituals entered the modern Turkish community. Turkish Republic was constructing Atatürk Boulevard as a sample development area both spatially and socially to adjust a modern community.

The establishment process of Atatürk Boulevard is similar with the Sixtus IV's interventions. Apart from his passions, the implication of community which focused on the development makes its meaning much more valuable. The ceremonial implications in Ankara could easily be observed along the spine of the Atatürk Boulevard. Before explaining the symbolic meanings, intersections; the route of The Atatürk Boulevard must be defined. In the development process of Ankara, the boulevard is the main spine of the urban macro form. Informally, the boulevard's

first formation is observed in the *Ankara Şehremaneti Haritası* (Current use map of Ankara Municipality Map) 1924. (Keskinok, 2009: 40) Later, the city is formed around that spine. Today, the Atatürk Boulevard is continuing from *Ulus, Hakimiyet-i Milliye Meydanı* (Hakimiyet-i Milliye Square), to *Çankaya Residence* or, with different implication, from The Turkish Parliament Building, to Presidents House. But, it should be noted that the linkage between *Kavaklıdere* and *Çankaya Residence* is completed in the road construction works in 1970's. (Dinçer, 2009: 25) The main vision of the boulevard is meaningful. It is started from the power of national community (as it was in the Independence War) that reaches to the house of the representation of public authority in Turkey. This spatial and meaningful structure is similar to the simple boulevard formation in the history. In addition, the names of the people who made great effort for the development young republic are given to the streets which are intersecting with the Atatürk Boulevard. (Erkan, 2009: 7, 8)

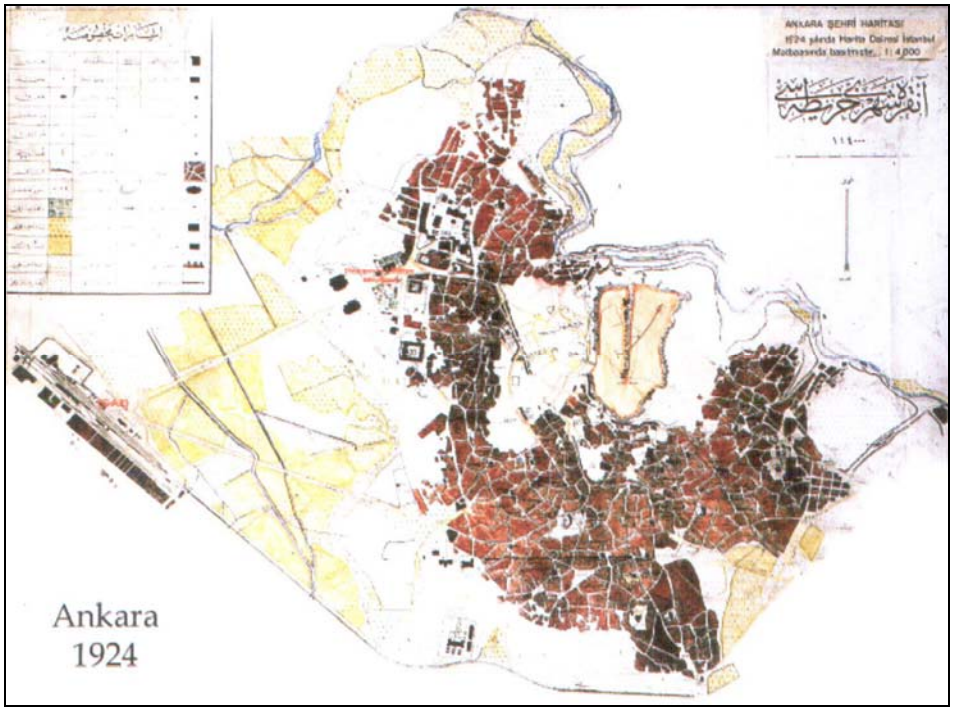


Figure 26 Ankara, 1924
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, *p.40*

At that point, it is easily observed from the implementation that the Atatürk Boulevard is a powerful symbol of the Turkish Republic. The emergence of boulevard is much more different from the middle era boulevards that were placed to the demolished walls. However, the main aim is the ceremonial and conceptual spatial formation, which is similar to the main boulevard schema. Moreover, a powerful tension between the edges made it the most important spine of Ankara. Another important factor to the selection of this case is; it is one of the unique examples that a city developed with a planned spine.

In the middle of the 1920's the development of Ankara designed on the basis of Atatürk Boulevard. Carl Christopher Lörcher prepared the plan between 1924 and, 1925 with giving importance to *Kızılay* and *Ulus*. The dominant development based on The Atatürk Boulevard easily observed from the plan. On the other hand, public institutions placed along the boulevard. The Atatürk Boulevard has been designed as the development of young republic's main artery. At that plan, the Atatürk Boulevard started behind the Hakimiyet-i Milliye Square and finished in the Kızılay, Güvenpark. To construct the designed space legal and administrative arrangements implemented in 1925 to obtain land and in 1928 *Ankara İmar Müdürlüğü* (Ankara Building Directorate) established. (Altaban, 1997: 89) The public institutions along the boulevard later closed to the public use. It could only be accessible for situated purposes. The gated public institutions closed to community have greatly decreased the use of it, in random activities.

Figure 27 Ankara, Plan of Lörcher 1924-1925
Source: From the archives of Cengizkan, A., (1924-1925) *Ankara, Plan of Lörcher*, Personal Archieves, in ed., Günay B. Edited by the author

Public institutions, which are designed along the boulevard, have a potential of situated action. The situated actions along the boulevard have also affected the random activities. It is a potential which is not only a threat for social interaction but also an opportunity for random activities.

Young republic of Ankara rapidly overcame the lassitude of independence war. For adapting the new modern social life a competition ordered because of The Lörcher Plan's previsions had went beyond the appraisals. (Keskinok, 2009: 42) Hermann Jansen in 1927 won the competition. The Plan of Jansen is elected because of the implications on boulevard along the north-south axis. Hermann Jansen's plan with its quality in creating modern spaces, squares and conservative approaches from the old city centre also have an important traffic management interventions. These interventions are also used for boulevard design today. He suggested to decrease the intersections, removal to the bus garage and suggested to replace away from The

Atatürk Boulevard. Moreover, he suggested a hierarchical distribution of traffic from the boulevard. According to Keskinok, Jansen's suggestions were compatible with the objectives of the young republic's capital city. Camillio Sitte school vision of Jansen's objectives is to create a public priority design along the boulevard together with the public institutions. (2009, 45) A design concerned with the harmonic relationship between all aspects of public use both situational and random activities inside. Jansen also gave importance to the pedestrian movement along the boulevard. Opportunities of wide space's especially east side suggested as a wide pedestrian way with the bicycle way. Along the 40 meter boulevard one or two column of shaded trees proposed. (Keskinok, 2009: 45)

Jansen's design had great affect on current use of the boulevard. It started from the Hakimiyet-i Milliye Square and finishes as a pathway to Kavaklıdere region. The boulevard had not reached the natural destination yet.

Activities along the boulevard have an imbalanced arrangement between the sides. The first implications were seen on the Jansen's plan. One side of the boulevard proposed as longitudinal activities the other side is for transversal activities. This attitude was also seen from the proposed buildings. However, the imbalanced spatial attributes, the vision of joint public and administrative design principles helped to overcome the problem. In addition, The Atatürk Boulevard design has a character of national identity of young republican community. This is the unique value of the boulevard. The most specific examples of this are *Vekaletler Mahallesi or Devlet Mahallesi* (Administrative district) and Embassies between The Administrative District and Presidential Palace. However, Altaban indicates that, these are the unique special values of The Atatürk Boulevard, especially; embassies which are impenetrable for public use. (1971, 91) Contrary to embassies, Administrative District designed also for public use. The administrative district is a pedestrian artery which is parallel to the boulevard. The Administrative District was designed as a public park with squares and greenery usage from Kızılay, Güvenpark to the

inner area of the district. It should be noted that today's use of Administrative District is also impenetrable.

Although, Turkish people have prior problems like epidemic diseases, economic requirements; priority is given to the adaptation of the rapid change in social life. For this purpose, the Atatürk Boulevard was used as a spatial tool for structuring the modern social life. The Atatürk Boulevard as the sample development area with creating its modern Turkish citizens became the core of that development. The interventions to create a modern society were succeeded evidently. The Atatük Boulevard created its culture with the administrative, social, recreational buildings. Dinçer expresses with the evening walks along the boulevard. As it's stated from the name of the activity, it was a random movement in the boulevard. It proves the powerful social interaction in those years. Until the 1970's, The Atatürk Boulevard was a place for a leisure walk after the cessation of work. (2009, 32) The activity area in the boulevard changed throughout the time. In the beginnings of boulevard, Ulus was the place for leisure, later Kızılay became the favourite place and finally, Kavaklıdere is used for that purpose. He also implied that after 1970 The Atatürk Boulevard is a place for situated activity with the words "*yürüyüp geçilen"* (a walking band – the only activity is walking for transportation aim). (2009, 32) As it is understood from his words, the activity was changed after the 1970 from random behaviour to situated behaviour.

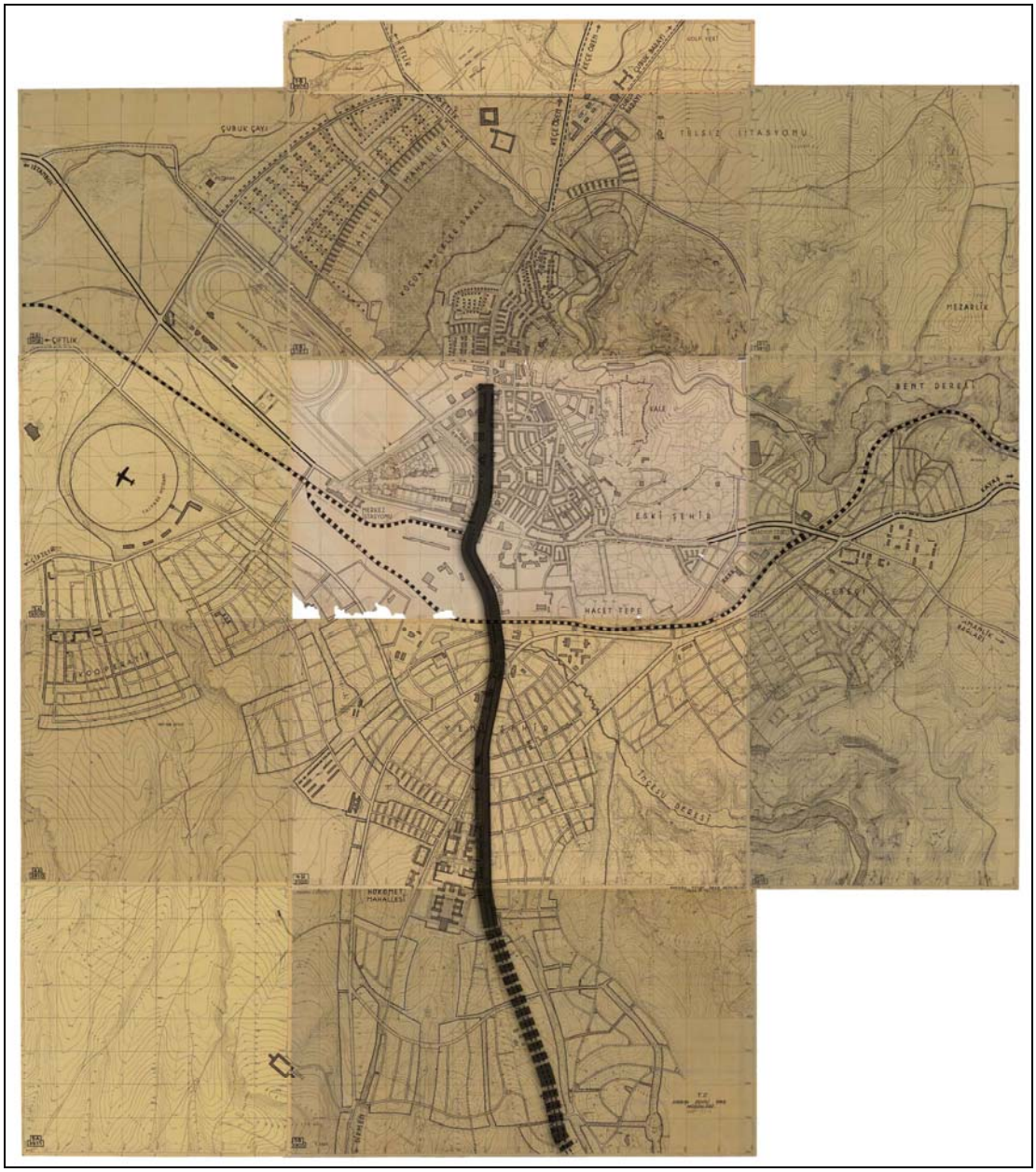


Figure 28 Ankara, Plan of Jansen 1927.
Source: From the archives of Günay B. Edited by the author

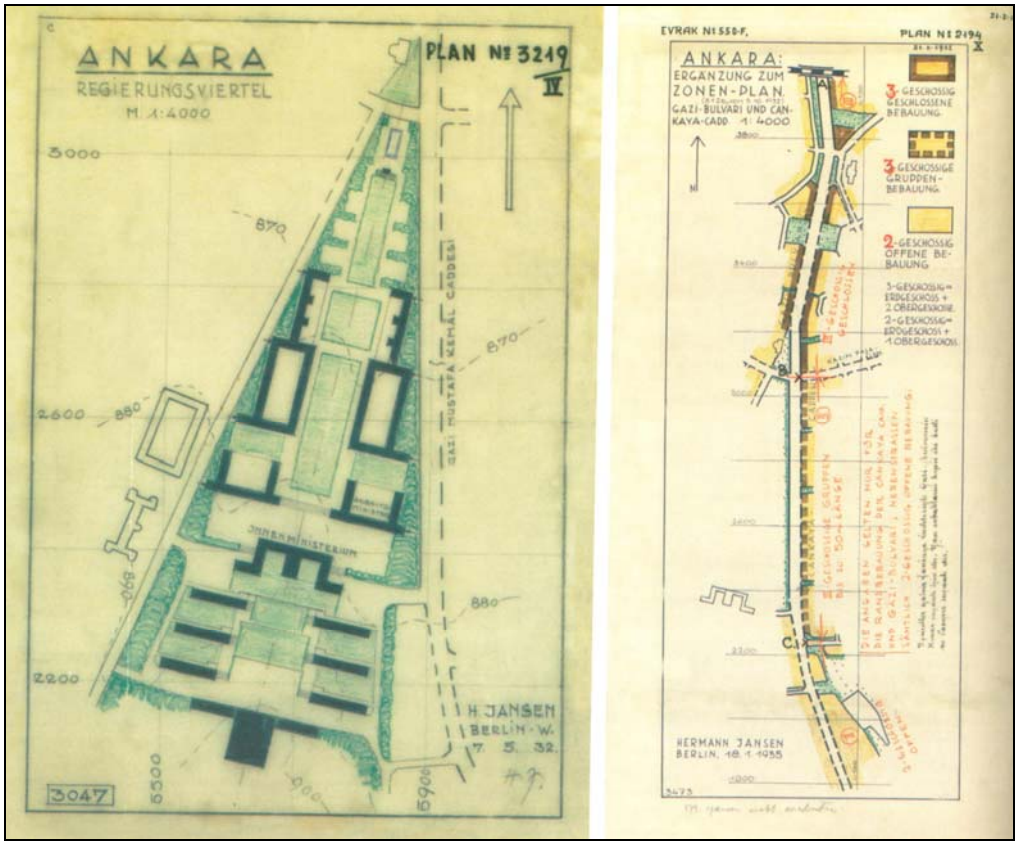


Figure 29 Ankara, Plan of Jansen, Administrative District 1932
Source: From the archives of METU Faculty of Arch. Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, p 50.

In the middle of the 1920's a new residential area is started to be constructed. It is an important development project that is designed and started with The Atatürk Boulevard. The Yenişehir Project is placed along the boulevard to new development areas, from peripheries of Ulus to Çankaya. A one or two story houses with large gardens along the boulevard creating another ceremonial activities. The tea parties, dancing parties promotes a new social life. (Nalbantoğlu, 1984a: 259) On the other hand, if boulevard concerned, a similar development in Paris created the boulevard. These small activities have great importance for the social life and development of The Atatürk Boulevard.

Another important structure that The Atatürk Boulevard is similar to boulevard development is the greenery structure of it. *Millet Bahçeleri* (National Gardens) are used for controlling the social relations and made them into continues social

relations, influencing from the French, Public Gardens. (Memlük, 2009: 73) The national garden includes theatres, social clubs, sport facilities and many different recreational activities. A few of them could be observed on the Plan of Jansen. These gardens and, others like *Gençlik Parkı, Güvenpark, Kuğulupark* have same purposes. These are the social generators for young republic. Memlük expresses the basic greenery areas along the boulevard as: *Gençlik Park, Abdi İpekçi Park (Sıhhiye Park), Zafer Park, Kızılay Park, Güvenpark, Turkish Grand National Assembly Garden and Assembly Park, Embessy Gardens, Kuğulu Park, Seymenlar Parkı, İnönü Park, Presidents Palace Garden*. (2009, 82-87) All these greenery structures are the strong evidence for random activity along the boulevard.

The development of a new administrative and social structure of young republic gave great pressure to Ankara and the Atatürk Boulevard. New interventions made incentive for the new settlers. Rapidly increasing population of Ankara introduces new communication necessities. Ankara's growth of population went beyond approximately twice of Jansen's estimations. In 1950's, Democrat Party period, Ankara with its increasing welfare started to face with a threshold. 1950-1960's could be qualified as a new era for the development of the Atatürk Boulevard. As a planning tool, every boulevard interventions had a politics, ideals and social necessities constitute the vision of the space. In other words, space shaped for the ideal society. In Paris, it's for bourgeoisie is prior. In Rome, Christian ideals are in the leading role. In the Atatürk Boulevard, aim is to create a modern society. Preferentially, leading role in an urban social environment has to be the community. But, after 1950 these priorities became to change from public priority to rent priority. Keskinok, indicated that 1957 is a new era for the planning of The Atatürk Boulevard with the second competition of Ankara Plan. Nihat Yücel and Raşit Uybadin's plan of Ankara win the competition. The plan's main aim was not to create a space, but a capital for the priorities of young modern republic. The plan aims to control reshape the rapid spatial, economic growth of capital. (Keskinok, 2009: 53) Solutions were directly oriented to the problems caused by technical communication with increasing, reshaping the channels by destructing the primary communication mechanisms. It is

clearly observed from language of the presentation from the plan based on traffic planning. In this plan, it is observed that, the boulevard reached its natural destination.

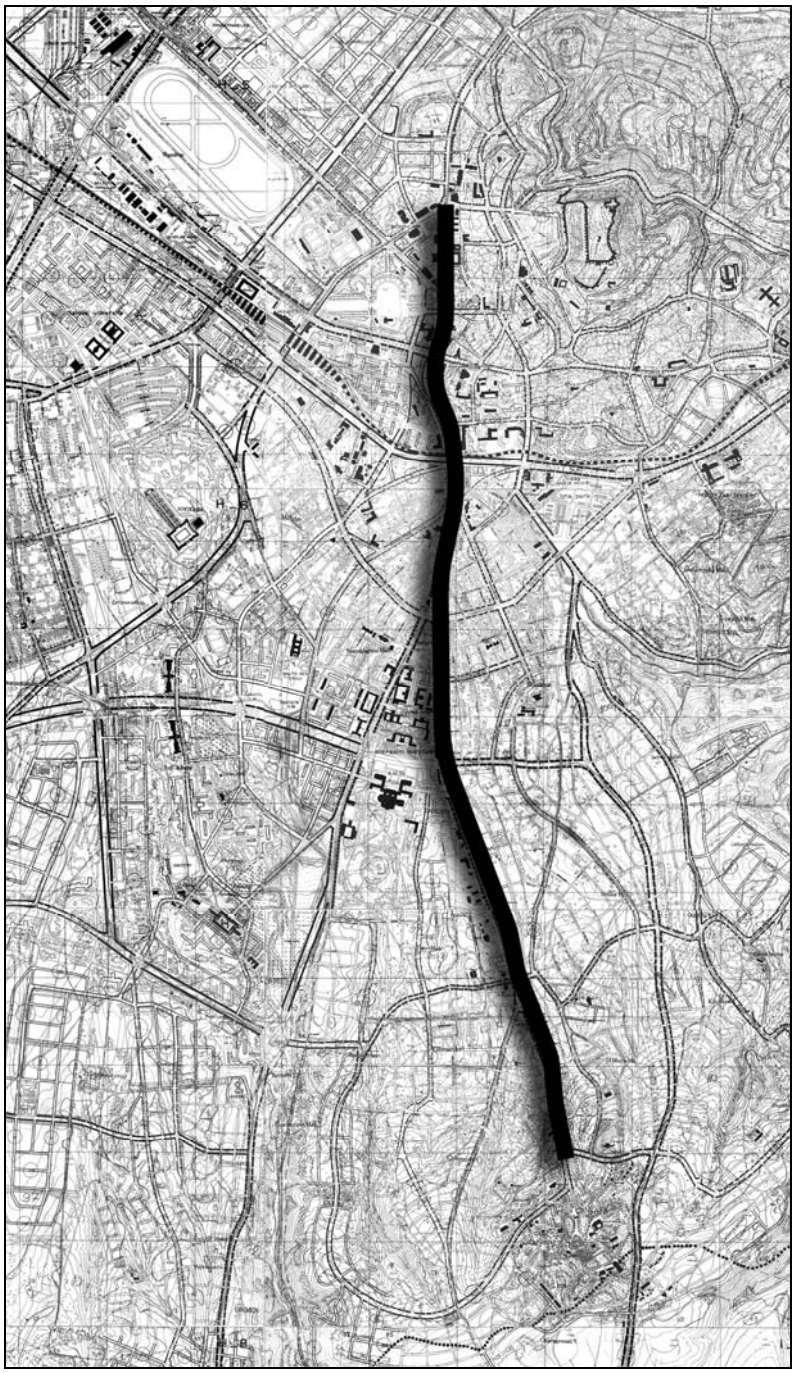


Figure 30 Uybadin & Yücel Plan of Ankara, 1957
Source: From the archives of Günay B. Edited by the author

Absolutely, the main element of technical communication is the transportation of service and goods. As it is seen from the short history of Ankara, 1960's were the era of increasing technical communication. The necessity of situational activities started to increase with the technological improvements. Ankara introduced with automobile technology in 1930's. Necessarily, a modern capital should use the public transportation in terms of the vision of young republic. Bus Enterprise of Ankara Municipality established in 1935. Starting with the 1940's were the years of reaching the requirements in technical communication. In these years, *taxi-dolmuş* was introduced to public life as the solution of inadequate transportation facilities of municipality. (Tekeli & Okyay, 1981: 226) It should be indicated that the increasing population and density parallel to investments in Ankara was changed to 157.000 to approximately 300.000 between the years 1940 to 1950. (Yavuz, 1973: 31) Parallel to the increasing welfare and density, it changed the priorities of publicity to requirements of transportation. One of the interventions with Uybadin-Yücel Plan in 1959 is widening the roads of boulevard. (Dinçer, 2009: 31) The widening project affected firstly semi-fixed feature elements like greenery structure that are the main composer of social interaction. Increasing density and necessity of technical communication (as it is seen from the previous boulevard cases) replaced from the primary interaction mechanisms. Situational needs got a blind community. A conventional situational closure continued from the increasing the number of floors along the boulevard to ten floor in 1961. (Keskinok, 2009: 55) All these interventions decreased the social quality of urban life with devastating social interaction spaces, and also values of these spaces. The crowding boulevard space has an alienating effect that emanates from over stimulation.

As it is explained in the conventional situational closure case, the interventions to control to the rapid increasing share of technical communication Master Plan Bureau of Ankara established in 1969. (2023 Başkent Ankara Nazım İmar Planı, 2006: 50) According to the 1990 Master Plan of Ankara a suburban development is proposed. A dispersed growth decreases the spatial importance of the Atatürk Boulevard and starting from this plan the boulevard became an avenue. As the places of social

interaction, parks are attained to technical communication spaces. The significance of republican history Güvenpark is converted to a public transportation parking space after 50 years from the independence.

It is observed from today's condition. Unapproved planning works of 2015 and 2025 Plan of Ankara continued such conventional closure this subject will be examined in the following part with past and presents conditions with the intervention of underground roads. This is the most radical intervention that the Atatürk Boulevard faced with from the beginning of its creation. The availability of random behaviour will be explained in terms of the availability to random movement.

In conclusion, it is helpful to define the character of the route. However, the Atatürk Boulevard started its life as a rural road and in terms of the meaning of boulevard, it is not a part of defensive feature of the city; significant ceremonial activity along the boulevard is the evidence of its boulevard feature. The main social structures and symbolic meaning that differentiates avenue and boulevard could be easily observed along the boulevard till 1957. After 1957, changing priorities on design feature, technology, densities have been decreased the social interaction on boulevard with the interventions. The symbolic value and the ceremonial activities along the boulevard compulsorily changed its place to north part of it that is where the transversal movement is limited. The increasing technical communication along the boulevard destructs the primary communication mechanisms and finally, road interventions that will be examined in the following part, averted the transversal movement. After 1957, The Atatürk Boulevard became an avenue.

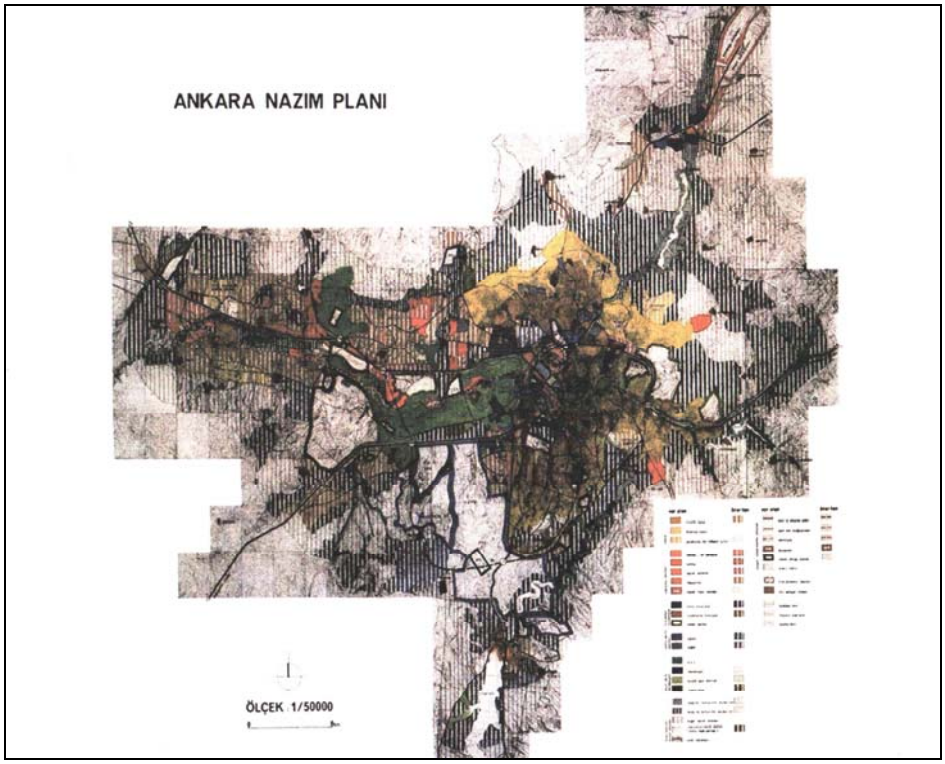


Figure 31 1990 Plan of Ankara
Source: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, 2023 Başkent Ankara, Nazım İmar Planı, www.ankara.bel.tr, http://www.ankara.bel.tr/AbbSayfalari/ABB_Nazim_Plani/ABB_nazim_plani.aspx, July, 2009

5.2. Examining f(x) & f(y) Along the Atatürk Boulevard

Before examining the behaviours and movements along the boulevard, it is helpful to investigate the interventions which affected the spatial structure of the Atatürk Boulevard. The Atatürk Boulevard is the sample development place of the modern face of The Turkish Republic. It is affected from the changing political visions of the administrative power.

Starting with the 1920, 1924-25 Plan of Lörcher, 1927 Plan of Jansen, and 1957 Plan of Uybadin-Yücel were the plans that the Atatürk Boulevard developed spatially. Figure 33 shows these periods and their frame of primary interaction area of the boulevard. Although these first plans of Ankara had a spatial quality in terms of communication, it is observed that the interaction boundaries of boulevard had decreased. The boulevard first reached the original route in the Plan of Uybadin-

Yücel. After these three periods, the Atatürk Boulevard faced with discrete interventions. These periods are 1957-1968 as the housing act period, 1968-1977 Dalokay's interventions, 1977-1994 Subway interventions and finally 1994-2009 İ. Melih Gökçek's underground passages period.

Between the years 1920-1927, the Atatürk Boulevard was planned as the main artery of modern republic with the comprehensive plans. Ulus had become the core of the city with the Ministry of Defence, Finance, Health, Ziraat Bank, Osmanlı Bank, Sümerbank Turkish Grand National Assembly and other important administrative and financial buildings. The Ulus square was completed in 1927 with its surroundings. One of the most important buildings is Ankara Palas which still stands. It is remembered as the place where Atatürk dance the *Zeybek*. In these years, the ideological perspective of the young republic integrated with carefully planned spatial interventions, to the urban public life.

Between the years 1927-1957, after the Jansen's Plan, a rapid construction period was started. In this period, interventions are planned and oriented to establish a modern sample social life for young republic. The most important parts of the Atatürk Boulevard was constructed and planned between these years. The Administrative District was designed by Jansen in 1932. The international competition of Turkish Grand National Assembly was completed in 1937 that is won by Holzmeister. The Gençlik Park Project was started in 1936 and completed in 1943. It was an opportunity for recreational activities and sailing, boating activities in the middle of the steppe's of Anatolia. In 1950's the Atatürk Boulevard is the place for Ankara society. The Büyük Sinema (Cinema) was completed in 1949. Büyük Tiyatro is still an important place for theatre and opera. Özen, Meram, Sergen, Penguen café's were important place for leisure activities. Moreover, Piknik was a kind of first fast-food restaurant in Turkey. It had remembered with its delicious sandwiches, foods, beers and quality of service. As it is written before, these facilities created a ritual of random activity namely *night walk* which was acted

with people dressed well and also the tea parties in the Y*enişehir* houses. However, the core of the city is Ulus, the interventions reached beyond the Kızılay District.

Between the years 1957-1968 could be the second era for the Atatürk Boulevard. The increasing pressure in the hearth of the city tried to be decreased with the transportation oriented plans of Nihat Yücel and Raşit Uybadin. The road connections established between the Konya and Samsun Highways in order to the plan (1957). The aim is, to increase the technical infrastructure (roads, avenues, highways) of the city. The housing movements had important affect on the density of the boulevard. The first road widening project on the Atatürk Boulevard was occurred. In this period, the interventions increased the pressure along the boulevard. The interventions went beyond the spine of Ankara. In this period, formal and informal communication oriented space converted to technical communication oriented. The changing political ideology after 1960 had greatly affected the spatial configurations of the Atatürk Boulevard and Ankara. Between these years, housing laws (gecekondu law) increased the pressure on the Atatürk Boulevard. In these years, the whole boulevard affected from *yap-sat* (build and sell) type of construction and flat ownership laws in 1968. With that law, flat numbers increased to 9-10 storeys along and around the boulevard. The first skyscraper of Turkey, Emek Building is constructed in 1964, in Kızılay. Kızılay became the new city centre with its commercial facilities and political importance.

Between the years 1968-1977, Kızılay square had gained its importance. Transportation aimed investments increasingly continues. Vedat Dalokay who was a mayor of Ankara between 73 and 77, especially gave importance to junction points. In this period, special bus lanes introduced and pedestrian areas narrowed again along the boulevard. Kızılay Building which gave the square to its name is destroyed in 1979. On the other hand, Sakarya, Konur, Yüksel, Karanfil and İzmir Streets were converted to pedestrian priority areas. Kuğulu Park was the project of Vedat Dalokay, Seymenler Park was built by Ekrem Barlas, and Abdi İpekçi Park was built

in Ali Dinçer's period. These could be the most important projects that sustain the random activiy along the Atatürk Boulevard after the Jansen's Planning Period.

Between the years 1977-1994, the Atatürk Boulevard lost its ceremonial character. Especially, after 1986, Güvenpark became a construction area and transportation centre of Ankara (Can, 1987: 60). The most important intervention, subway system project was started from Mehmet Altınsoy and completed by İ. Melih Gökçek (1997). In addition, commercial headquarters, banks and institutions established along the Kuğulu Area. Between the years 1977-1994, Kızılay started to loose its importance.

After the 1994, the longest mayor of Ankara, İ. Melih Gökçek, gave the highest importance to transportation investments. Sıhhiye U shaped Bridge completed in 1997, Akay Underground pass constructed in 2001. Finnaly, Kuğulu Underground Roads finished in 2007. Moreover, when constructing the underground roads, pedestrian areas decreased.

Mayor's attitude before 1960's changed from spatial awareness of social relations to technical infrastructure. The young capital became a machine for living and it supplies only the material needs for living. The socio-spatial awareness of the Mayor's in the Atatürk Boulevard place disappeared increasingly. The technical necessities of situational behaviours dominated the institutional, ceremonial structure of the Atatürk Boulevard. On the other hand, it is observed from the figure 32 that the interventions moved from Ulus to Çankaya district and went beyond the limits of the boulevard after 1960.

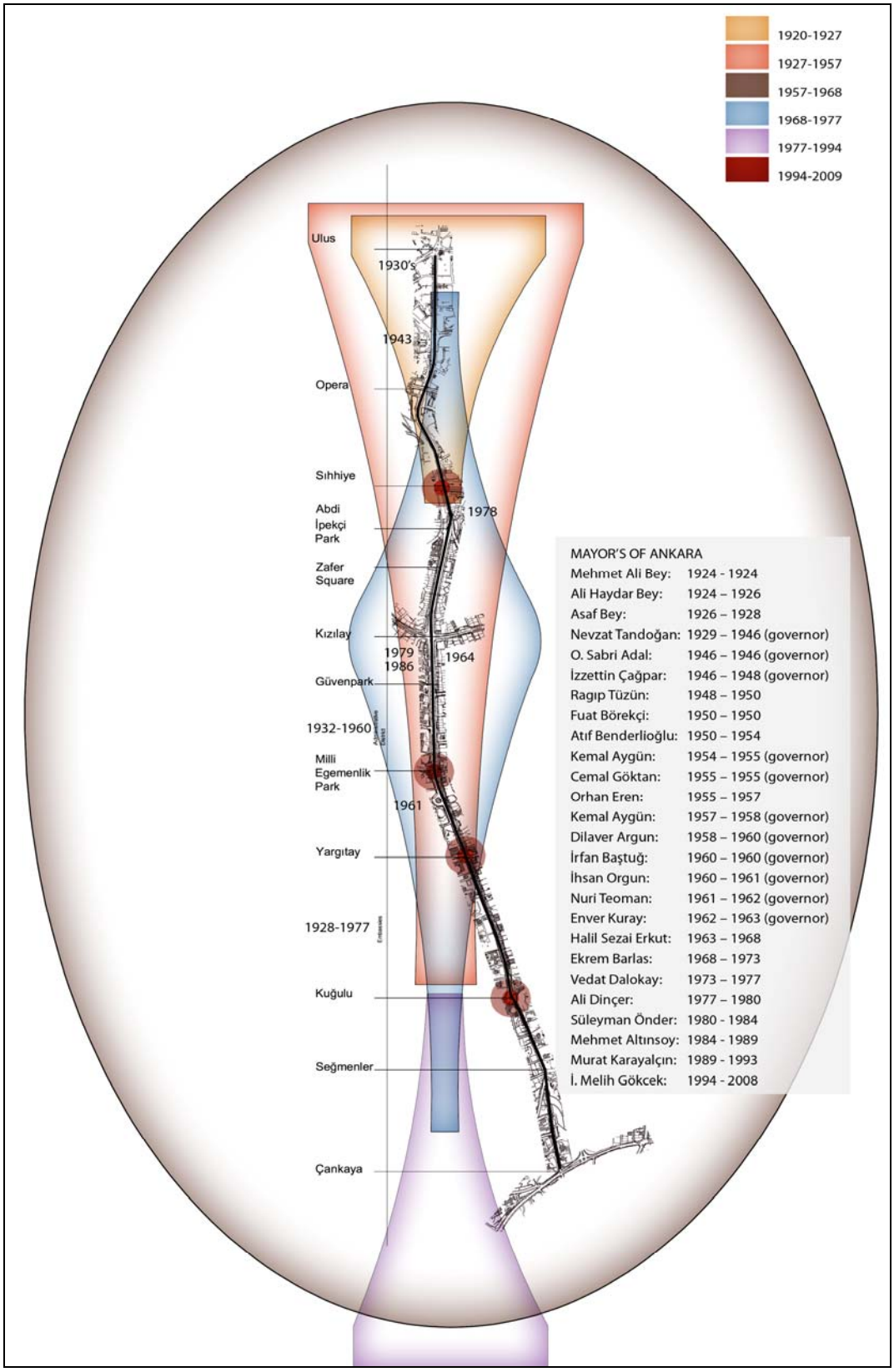


Figure 32 Density of Interventions along the Atatürk Boulevard and mayor's of Ankara at that period. Edited by the author
Source: www.ankara.bel.tr, http://www.ankara.bel.tr/AbbSayfalari/Kurumsal/Tarihce.aspx, July, 2009

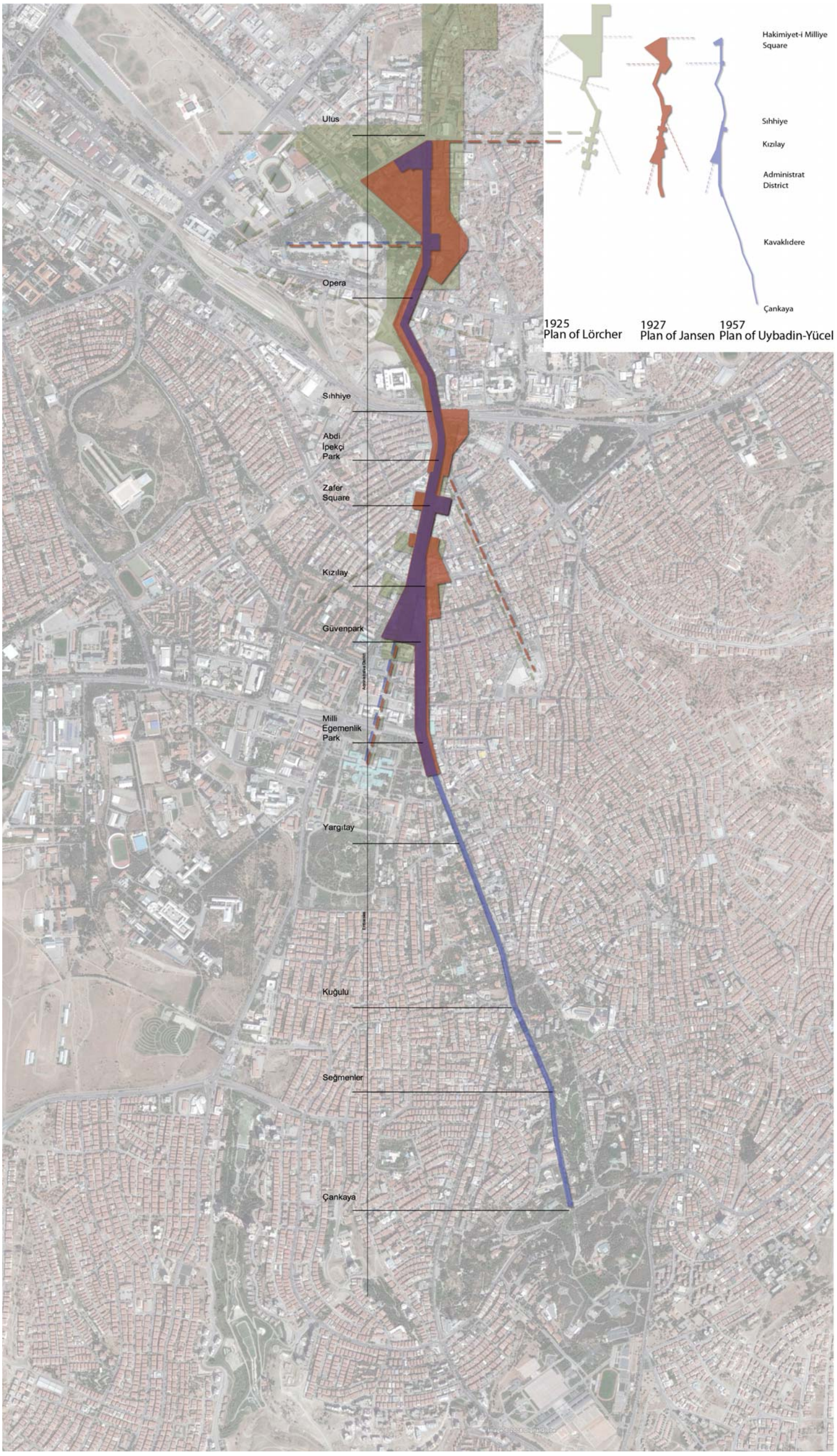


Figure 33 Primary Interaction Frame of the Atatürk Boulevard (Historical Transformation)
Source: From the archives of Günay B. Edited by the author

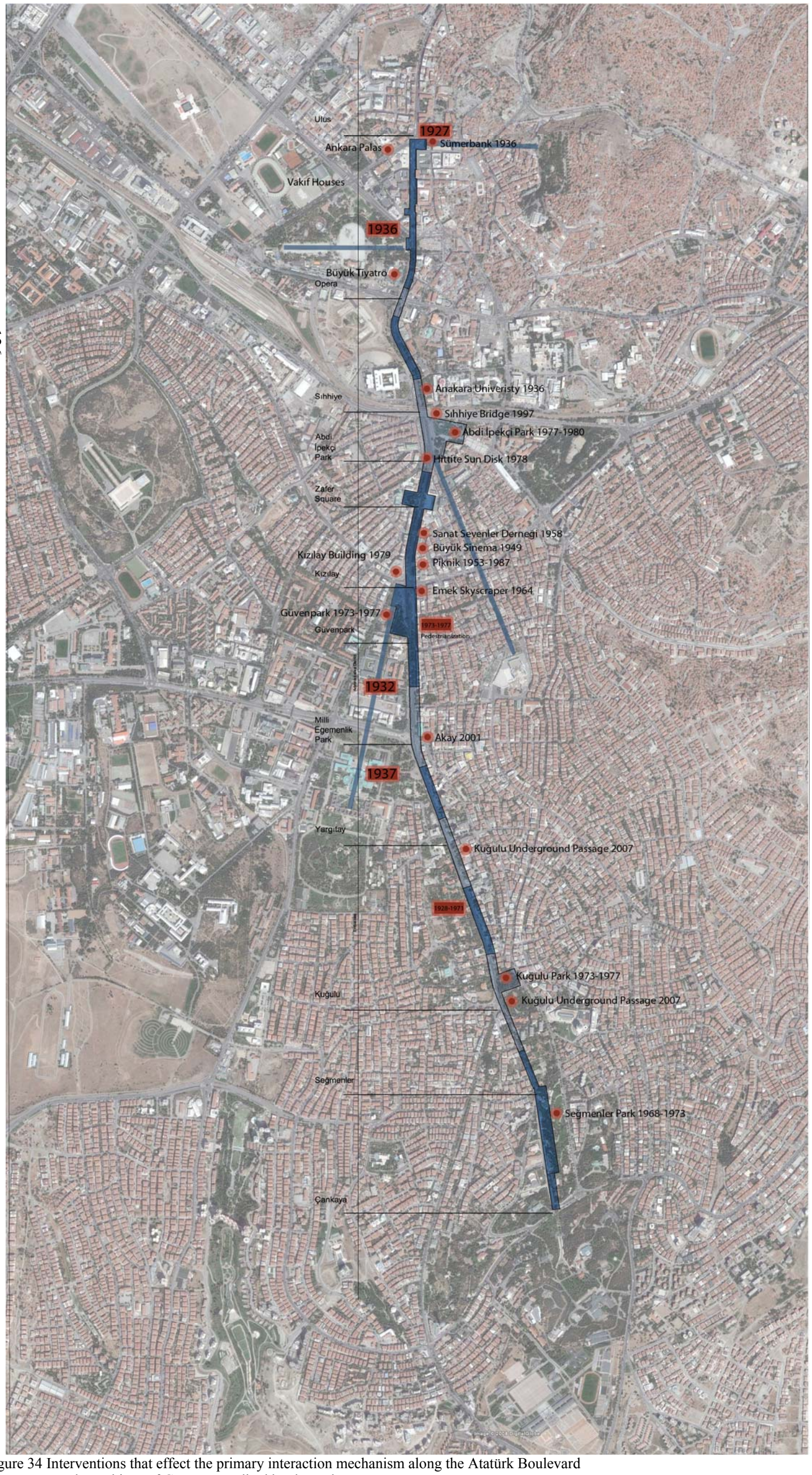


Figure 34 Interventions that effect the primary interaction mechanism along the Atatürk Boulevard
Source: From the archives of Günay B. Edited by the author

As it is expressed in the theoretical chapter, city is a social space. The significance of social interaction is the primary communication mechanisms. Random movement is the crucial activity of primary communication along the linear spaces. It is observable that the random activity is sustained by the balanced structure between longitudinal and transversal movement.

Throughout the history, urban spaces rapidly changed with the technological improvements on technical communication. Automobile became affordable for middle class, and transportation of services and goods necessitates communication routes. The boulevard, as the greatest communication artery of city affected from the changing communication requirements. The balanced structure between primary and secondary communication mechanisms is degenerated. All boulevards as the ritual and ceremonial arteries of social structure are affected again and again by the alienating conventional situational closure. Alienation to boulevard space had a blinding affect on community. Although, most of the boulevards are affected by the technological changes, continues interventions on traffic management made them to loose their rituals. This is evidently, rooted from the stimulation problems because of the dominating technical communication. It is inferred that alienation in the Atatürk Boulevard space is emanated from the ratio of the changing categories of communication.

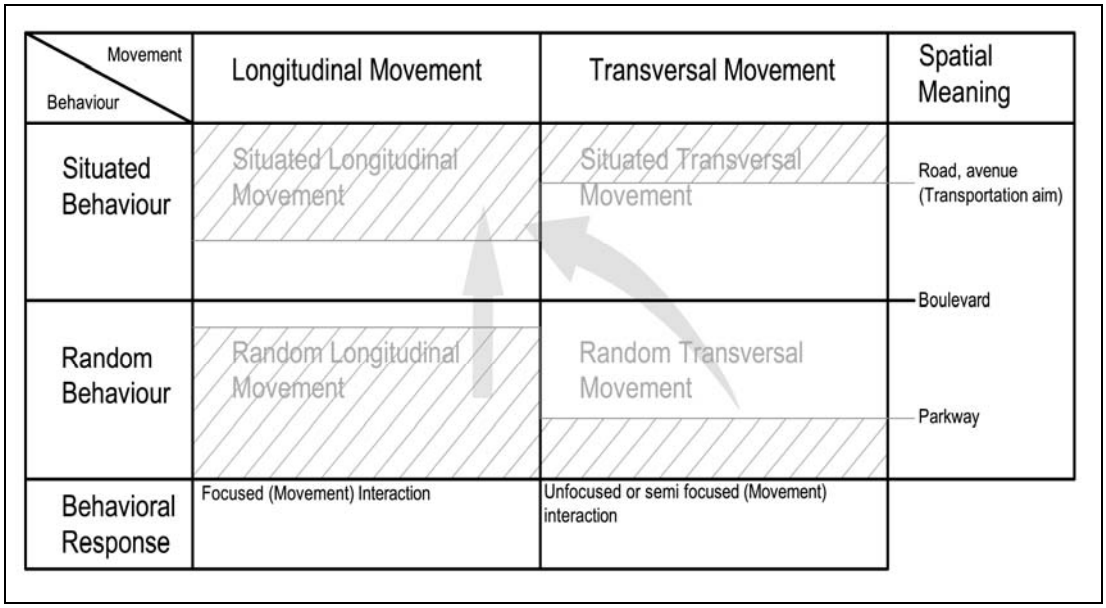


Figure 35 Relation between Movements and Behaviour in Boulevard.
Source: Personal Rendering

In Figure 35, the relation between movements and behaviours along the boulevard is explained. The movements could have different behavioural character. If a linear space concerned, the longitudinal movement is dominant than transversal movement. This results from the linearity of space. In longitudinal movement, the goal is important, as it is explained in the previous sections. The focused interaction decreases the opportunity of random activity. On the other hand, in transversal movement, goal is less important than the activity. So, the opportunity of random activity is increased. It is understood from the figure that, any spatial hindrance in transversal movement will affected the general behavioural pattern. In the Atatürk Boulevard, movements and behaviours reduced to the situated longitudinal movement. Interventions directly oriented to increase the longitudinal movement that is averted the possibility of random behaviour.

This part main aim is to examine the movements that are the representation of relations along the Atatürk Boulevard. For this purpose, transversal movements along the Atatürk Boulevard will be examined especially. For building a comparative study, a movement before 1960's is expressed with the helps of the photographs. First study expresses the Atatürk Boulevard's social structure before

the road widening interventions. Later, a spatial analysis will be prepared for the availability of transversal and longitudinal movements with the last underground road intervention. The question of how boulevard's social interaction changed according to the last interventions is tried to be answered.

Before 1960's pedestrian movement mainly concentrated on Kızılay and Ulus district. First examination mainly based on the calculation of movements along the boulevard with the help of old photos. On the other hand, the availability of both movements is important. Any barrier, restricted area etc. had alienating affect. It should also be remembered that the vehicular traffic is limited because of the affordability in these years. The main objective of examination should concentrate on looking for any alienating physical or social barrier and the use of technical communication.

It should be noted that examining the physical movements could not give the clear result of changing behaviors on boulevard. The aims of the movements identify the real result of examination. Because of identifying the aim of every person is hard to examine, the clear results will be expressed later, with the help of spatial analysis. On the other hand, the photographs will help us to compare the frame of movements to today's condition.

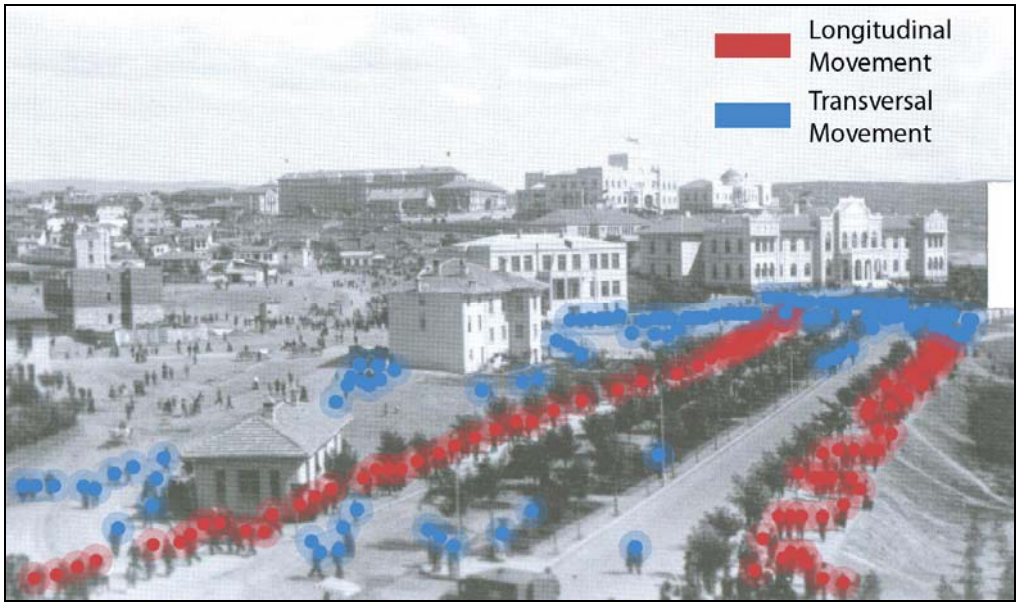


Figure 36 Hergelen Square Area Edited by the author.
Source: Dinçer, G., (2009), *Ankara Atatürk Bulvarının Öyküsü,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti*., p.15.*

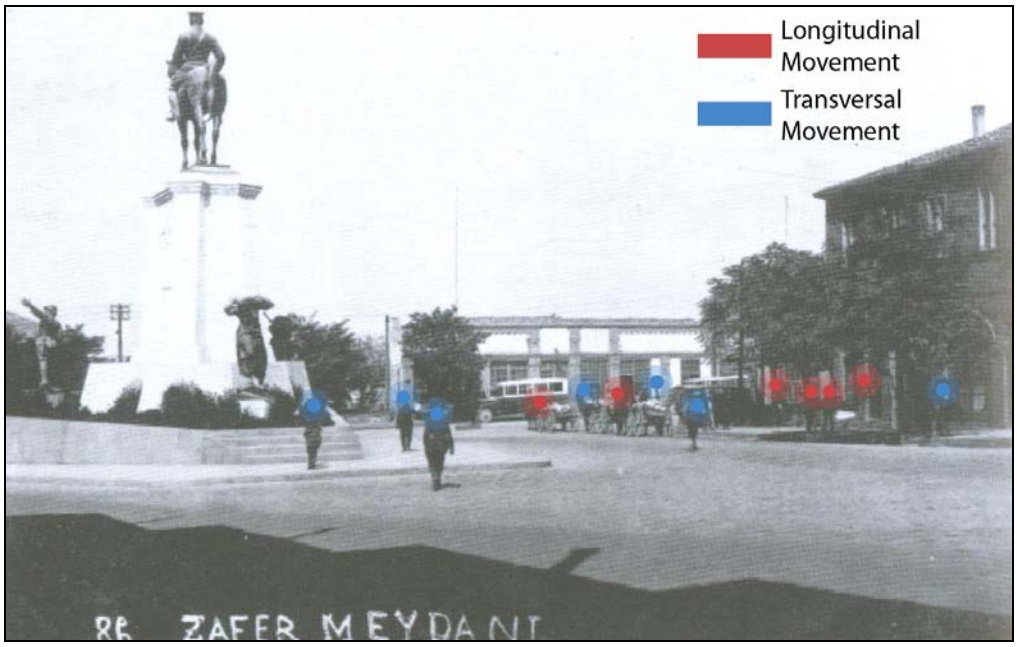


Figure 37 Zafer Square Area. Edited by the author.
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti*., p.132.*

Figure 38 Hakimiyet-i Milliye Square. Edited by the author.
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, *p.134.*

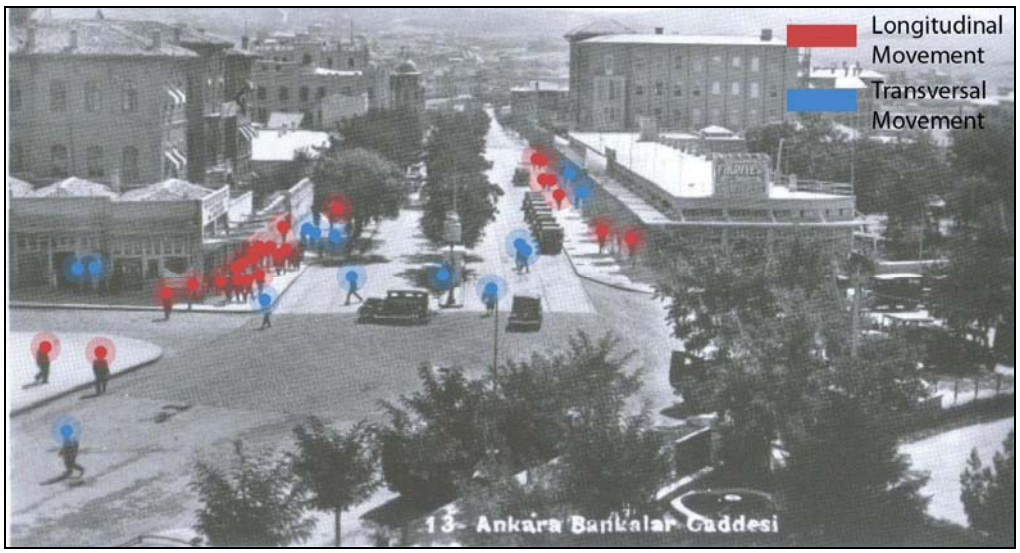


Figure 39 Hakimiyet-i Milliye Square. Edited by the author.
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, *p.134.*

Figure 40 Hakimiyet-i Milliye Square. Edited by the author.
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, *p.139.*

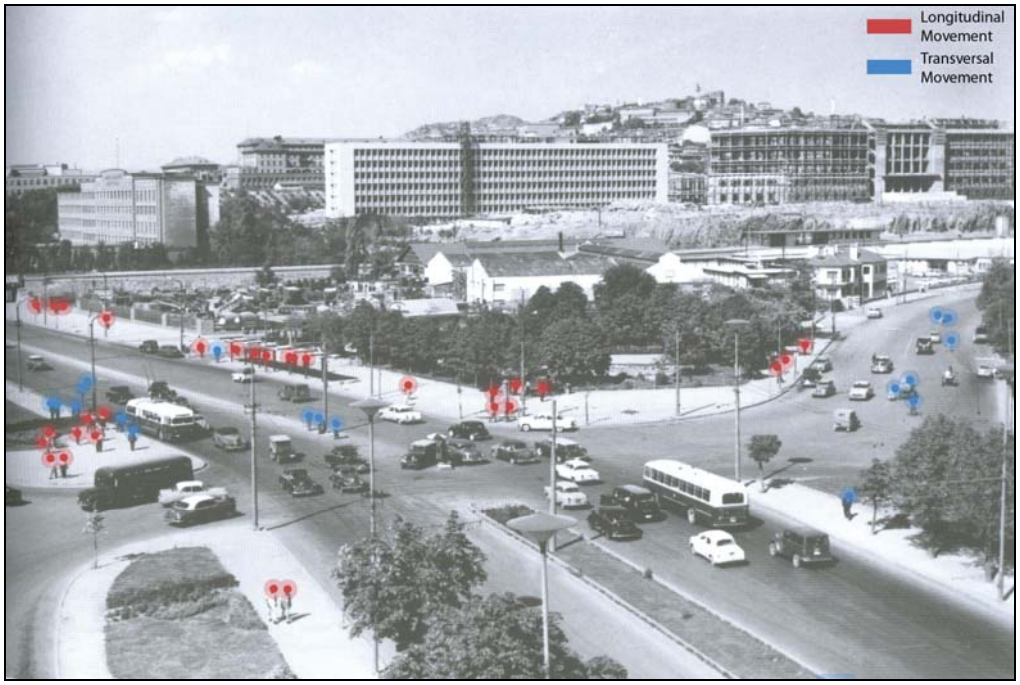


Figure 41 Sıhhiye. Edited by the author.
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, *p.175.*

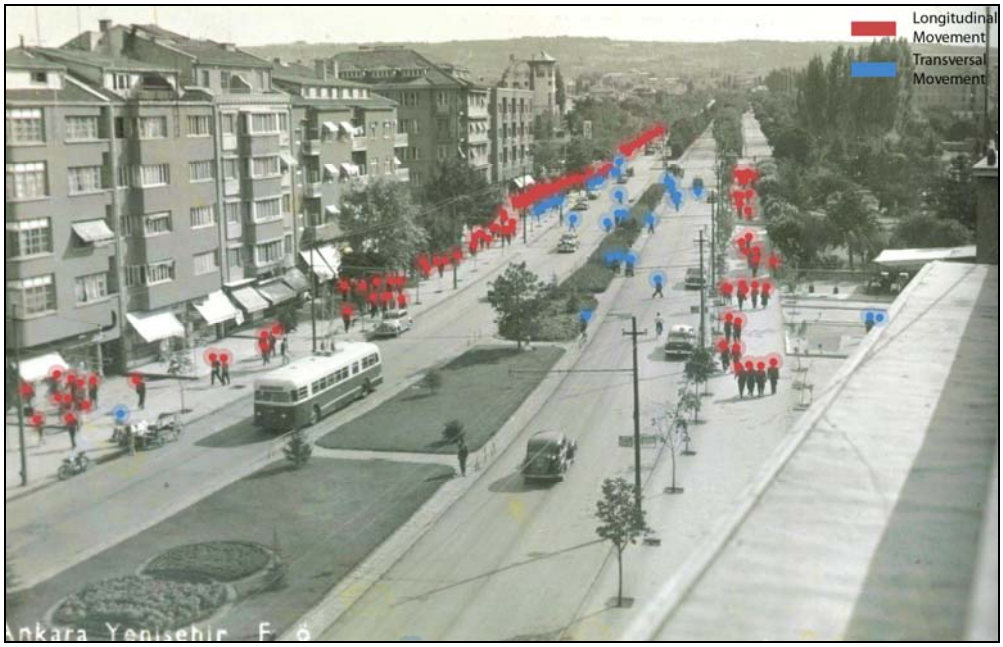


Figure 42 Kızılay. Edited by the author.
Source: Keskinok, Ç. H., (2009), *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu,* ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı,* Kolleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti*, p.186.*

Figures 33-39 represents approximately equal amount of longitudinal and transversal movements. In these years, roads were not imposing a barrier between the two sides and also it was used by pedestrians much more than vehicles. On the other hand, a dense transversal movement is observed on the figure 33. The density caused by the activities of buildings along the boulevard. So, the affect of land use along the boulevard has also important affect on movement. Different from the case of embassies, public buildings are the pedestrian generators in both longitudinal and transversal movement.

It is clearly observed from the figures that when the traffic density increases, longitudinal movement prior to situational activity (in terms of theoretical case) as it was explained in the Appleyard's work, will decreases. In other words, the increasing amount of technical communication has a decreasing affect on transversal movement prior to random behavior. More apparent result is observed from today's condition. The increasing density of traffic as a technical communication hinders the primary interaction mechanism. The ratio of longitudinally moving pedestrians

dominantly increased in today's figures. In figure 43, there is a dense transversal movement in the pedestrian crossing. Although, it is a transversal movement, the nature of the movement is not a random activity. This is the exceptional case for prior situated behavior in transversal movement. Apart from the exceptional cases, it could be observed from the figures that there is not any observed transversal movement prior to random activity. The ratio of longitudinal movement naturally prior to the situated activity dominated the boulevard.

Figure 43 Kızılay. Edited by the author.
Source: www.panoramio.com, http://www.panoramio.com/map/#lt=39.920465&ln=32.854928&z=-2&k=2&a=1&tab=, july 2009

Figure 44 Sefaretler. Edited by the author.
Source: www.panoramio.com/map,
http://www.panoramio.com/map/#lt=39.904963&ln=32.858986&z=-1&k=2&a=1&tab=undefined,
July 2009

Certainly, the only reason of dominant longitudinal movement along the Atatürk Boulevard is not heavy traffic. The distance features surrounding boulevard has also

a great affect on behaviors, interaction mechanisms. In a chain reaction of increasing requirements of technical communication, space attained to primary communication mechanisms will decrease. The barriers like feature that avert transversal movement are not on the middle of the road that decreases the territorial requirements for social interaction. In figure 44 it is observed a squeezed space for pedestrians between the walls of embassies and vehicle road.

In grand manner, increasing technical communication necessities as a situational activity dominated the interaction mechanism along the Atatürk Boulevard. Later, underground roads and bridges were the interventions with the conventional situational closure of increasing needs on technical communication. These interventions naturally increased the flow of traffic that causes alienation and decrease the opportunities of primary communication mechanism. Increasing flow of traffic, decreasing use of social interactions was also creating more reductionism on planning. The Atatürk Boulevard space abandoned for the use of public random activity. The abandonment of public random activity, in the basis of transversal movement; will be explained with the newest photos and a comparative examinations on 2006, 2007 to 2009 sections drawings.

5.3. Experiencing the Atatürk Boulevard

This section aims to define the current condition on the Atatürk Boulevard. The latest photos and comparative sections drawings will help us to understand the latest condition along the boulevard. Author tries to answer the changing behavioral patterns with the help of spatial analysis and, with his own experiences. This section mainly focuses the underground road, which are the last and the most important traffic oriented intervention along the boulevard. Before explaining the latest photo analysis, the reader should pay attention to the different pedestrian activity between Ulus-Kızılay and around the underground roads.

It is observed from the photo analysis that a distinct reduction in transversal movement, if the latest analysis would compared with the old photo analysis. Although, the vehicular traffic that averted the transversal movement is increased, the underground passages and barrier refuges are secondary elements that avert the transversal movement.

Figure 45 Kuğulu.
Source: Author's own archieve.

Figure 46 Akay.
Source: Author's own archieve.

Figure 47 Kızılay.
Source: Author's own archieve.

Figure 48 Opera.
Source: Author's own archieve.

Figure 49 Gençlik Park.
Source: Author's own archieve.

Figure 50 Ulus (Hakimiyet-i Milliye).
Source: Author's own archieve.

The author observed that, transversal movement along the boulevard has also loose its behavioral features. It is easily understood from the photos and experiences that the decreased transversal movement along the boulevard gained a situational character. The main aim of the transversal movement is changed to reaching the

destination and transportation facilities. The only exceptional case is observed on the Ulus (Hakimiyet-i Milliye) Square. This is the direct result of the surrounding activity in the square and the preserved spatial structure.

The spatial interventions that increased the technical communication have a disastrous affect on the spaces attained to other types of communication. The spaces attained to primary communication mechanisms has also affected from the huge increase in technical communication. This is observed in figure 48 that was taken in 12 September (The vehicular traffic along the boulevard is partially stopped at that date). In this photo, however the traffic was stopped, the situational purposed persons waiting for the buses.

In this section, it could be helpful to explain the changing relation with the help of comparative sections around the underground roads. The first 6 sections represent the condition before and after the last underground road interventions. The other 4 sections drawn for controlling the other parts of boulevard that have still includes little amount of transversal random activity. However, the increasing amount of traffic (technical communication), decreased the transversal random movement (formal and informal communication) along the whole boulevard structure, the comparative sections shows us Ulus and Kızılay have not looses their opportunities for becoming a boulevard rather than an avenue. In addition, this analysis aims to express the categories of communication and changes of these categories along the boulevard. For this reason, the spaces measured according to show the changes in the categories of communication.

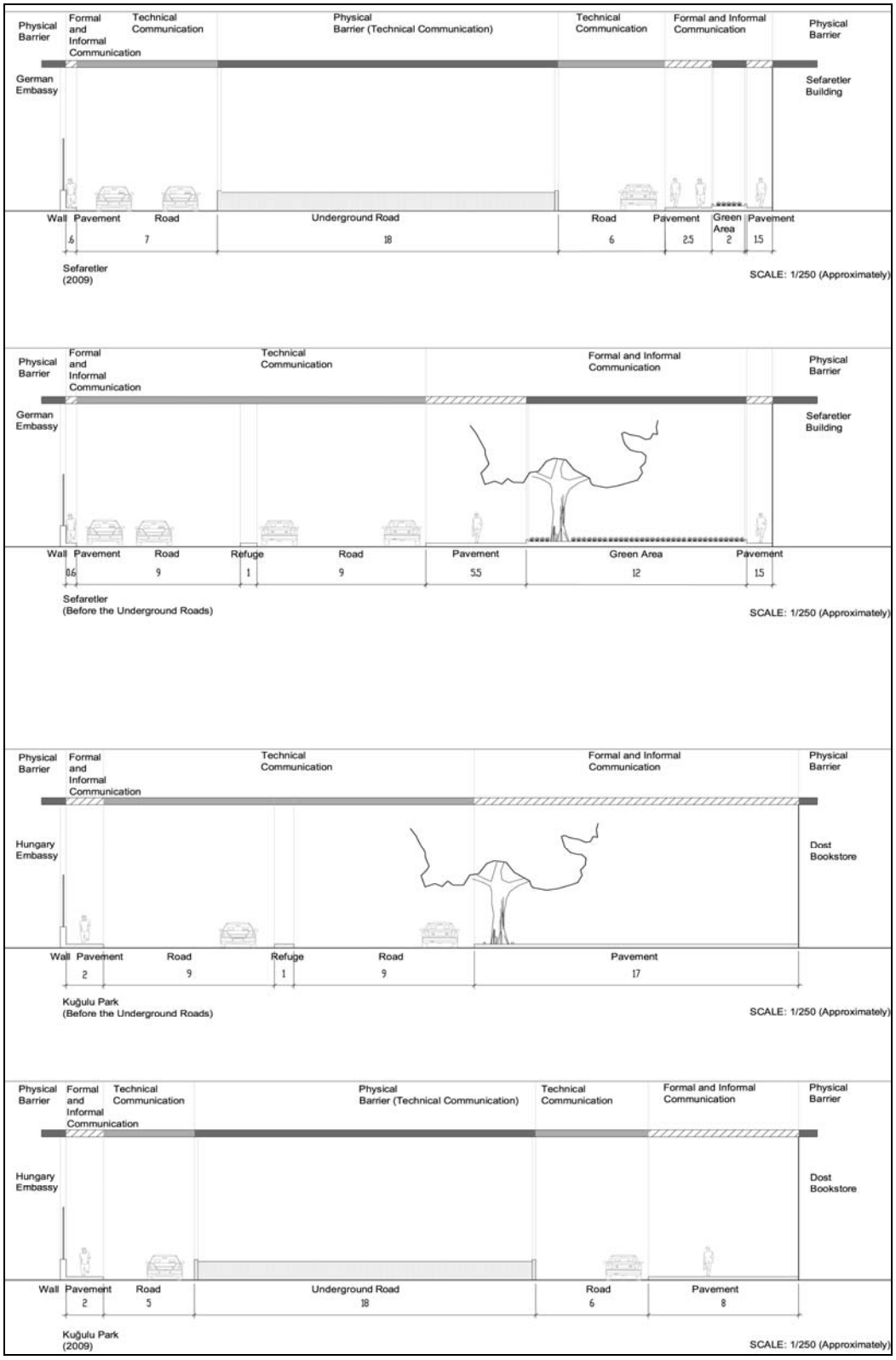


Figure 51 Sections 1
Resource: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

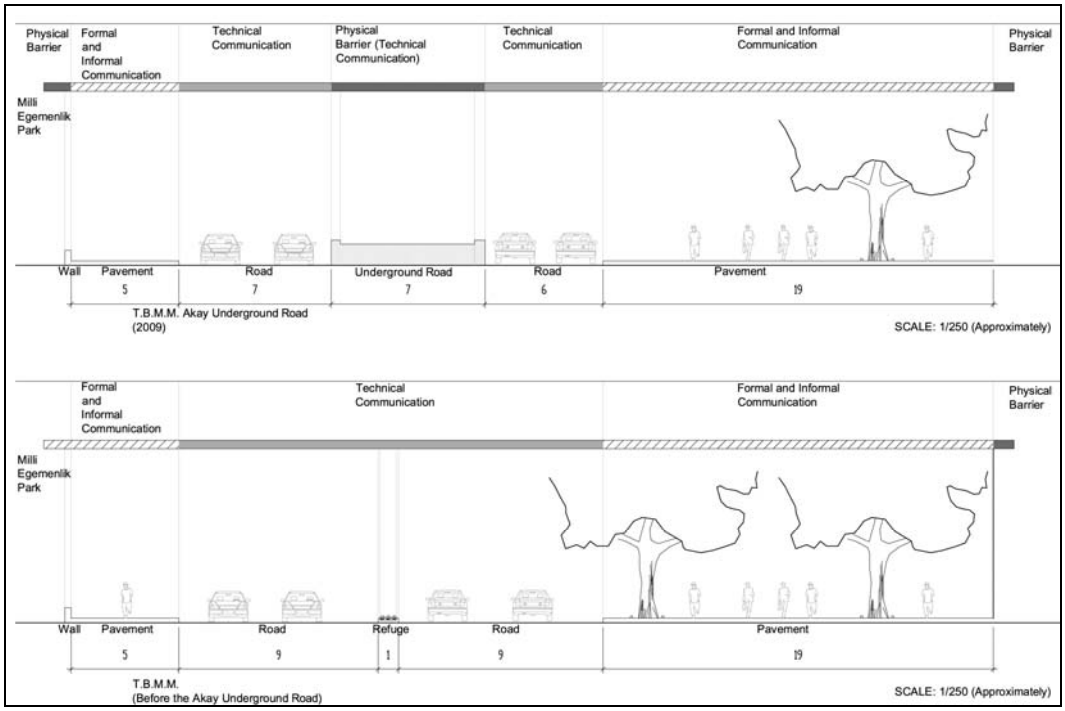


Figure 52 Sections 2
Resource: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

It is observed from the sections that, a clear amount of space attained to the informal and formal communication is changed to technical communication area. These spaces became a physical barrier for pedestrians. As it is explained before this type of separation is directly increases the alienation to the boulevard space. Moreover, the decrease in the proxemical distances is also observed from the section figures. The reduction in the informal and formal spatial structure also affected the activity along the boulevard corridor which is triggering the longitudinal situational activity. Another important change that is observed is the decrease in the greenery structure along the boulevard. The values that have the specialty of *ad hominem*, are decreased with the interventions. It is understood from the analysis that, there is a distinct amount of decrease on social generation of boulevard. These changes directly understood from the disappearance on the balanced structure of transversal and longitudinal movements. This is the reason why this thesis gave such an importance to the social implications on transversal movement and the negative affect of situational longitudinal behavior on it.

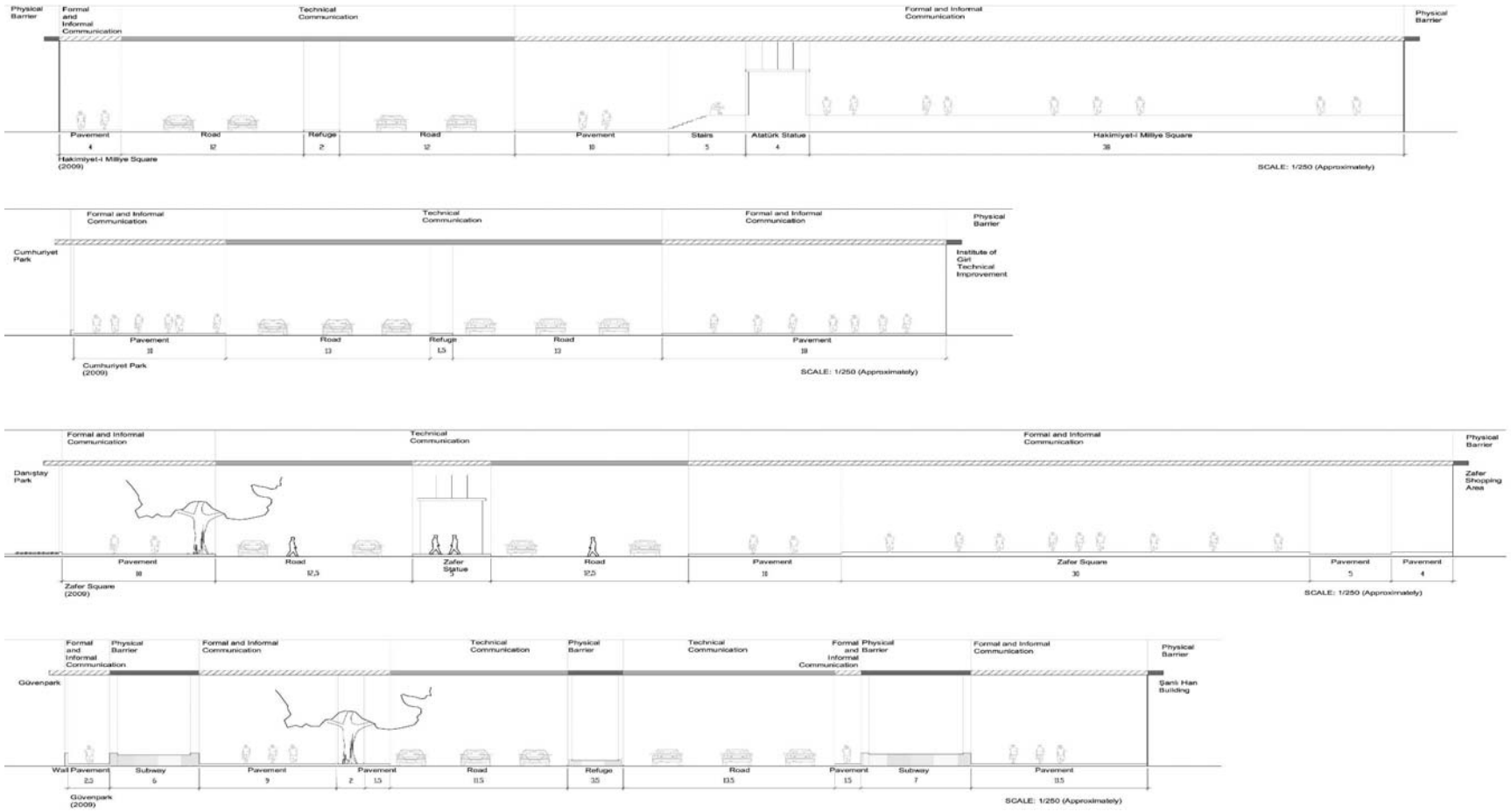


Figure 53 Sections 3
Resource: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

The domination of situational behaviors is clearly appeared when the people are observed privately. The author observed the random people that were walking along the boulevard. In this analysis, author tries to understand the purpose of their movement. These movements are;

Random Person 1 (RP1): RP1 walked from Kuğulu to Kızılay. He walked rapidly without stopping in front of any building. Finally, he entered the subway station. He was walking clearly to reach the transportation point (10.September.2009).

*Random Person 2 (RP2):*RP2 walked from Kuğulu to reach the John F. Kennedy Street. She walked rapidly and stopped only once for buying something from kiosk in front of the Kuğulu Park (11.September.2009).

*Random Person 3 (RP3):*RP3 walked from Olgunlar Street to Kızılay in a middle speed. He waited for couple of minutes and got into a bus. It has no relation with the environment. This is also a clear longitudinal situational behavior (10.September.2009).

*Random Person 4 (RP4):*RP4 walked from Mithatpaşa Street, Kızılay to Tandoğan. He walked in a medium speed. He made a situated transversal movement for reaching the bus stop (12.September.2009).

*Random Person 5 (RP5):*RP5 walked from Kızılay to Zafer Square. This is the first random transversal movement that was observed along the boulevard. Later, she used the boulevard for got into the bus. She moves slowly when walking around the Zafer Square but; when she started to walk the boulevard, walking speed was increased (12.September.2009).

*Random Person 6 (RP6):*RP6 walked from Kızılay to Sıhhiye Bridge's bus stops. He made a clear situated longitudinal movement. He was walking fast (12.September.2009).

*Random Person 7 (RP7):*RP7 made a random behavior in the Ulus Square. He walked around and sat down in front of the statue (12.September.2009).

*Random Person 8 (RP8):*RP8 walked across the street in front of the Ankara University Building, and waited in the bus stop. This is also a clear situated transversal movement (12.September.2009).

During the observation, 1 of 8 people made a transversal movement. 2 of 8 people made random behavior. In addition, it is observed that, there are specific nodes that gave opportunity to transversal random movement. These are Kızılay – Zafer Square, and Opera – Ulus. The other parts of the boulevard is physically averted the transversal movement and also, activities arranged for longitudinal movements. It is easily deduced from 6 of 8 people that made situational activities.

It is understood from the previous analysis that, interventions oriented to longitudinal situated activity had also effected the transversal movement which has a random character in general. According to the experiences along the boulevard, it is observed that, there are a lots of transportation oriented design measures for pedestrians, such as; bus stops, pedestrian bridges, dolmuş stops. These interventions affected the main behavioral features of movements. In addition, the decreased transversal movement along the boulevard has changed its character from random behavior to situated behavior. On the other hand, Ulus and Zafer square still have opportunities for transversal movement.

These photographic analysis and experiences shows that there is distinct increase on technical communication and situated longitudinal movement along the Atatürk Boulevard. These interventions decreased the availability of transversal movement spatially and changed the prior character of transversal movement form random to situated behavior. In general, the Atatürk Boulevard is converted to a place for longitudinal situational behaviors that corresponds a conventional situational closure.

The increasing situational activities converted the social boulevard space to a transportation route. This is what this thesis explains as spatial alienation.

To understand the process of spatial alienation, it should be helpful to make spatial analysis after the last interventions on boulevard. In these analyses, author tries to explain the use of transversal movement prior to random activity as the significance of social interaction.

There are four analysis related to the allowance of primary communication as the transversal movement. First analysis gives information about the today's condition of underground roads and bridges that helps increase flow of traffic as the technical communication. Along the boulevard, there are 2 bridges and 3 underground roads. Bridges on Sıhhiye and Opera were the interventions that expand the use of intersections. These bridges are not only directly increase the flow of traffic, but also indirectly increase the density. Akay main underground road was started to use in 2001. This is the biggest connection that mainly intersects the heavy traffic of Eskişehir road to The Atatürk Boulevard. Kuğulu Underground roads are mainly functioning as the increase the flow of traffic in the Atatürk Boulevard rather than others. Other roads are working for circulation of traffic between several directions, but Kuğulu Underground roads specified on The Atatürk Boulevard traffic. These interventions finished and started to be used in 2007. In figures, it is observed that there is a clear invasion to pedestrian areas. During the construction pedestrian areas narrowed approximately 8-14 meter. It is seen in the photo analysis that west pedestrian way decreased to 20-60 cm. So, underground roads not only affected as directly increase the use of technical communication but also decreases the territorial requirements of primary interaction mechanisms. On the other hand, they became a barrier between the sides of boulevard that keeps transversal movement out.

The second spatial analysis is concentrated on the subject of transversal movement. It examines the physical barriers that are not allows transversal movements between the pedestrian areas. Clearly, the result of analysis identifies the changes on the

development process of the Atatürk Boulevard. As it is expressed above, the Atatürk Boulevard had a powerfull social, ceremonial structure till 1960's. The center of the boulevard from Ulus to Sıhhiye and Abdi İpekçi Park allows transversal movement. Later the interventions were focused on the traffic management rather than social design care. Because of the safety measures to heavy traffic, barriers replaced the refuges on the new development areas. From Sıhhiye to Akay there are several types of barriers created with landscape elements. Transversal movement only allowed in the Zafer Square and Kızılay Square. Between Akay to Çankaya underground roads disallows the transversal movement. The movement is only used for compulsory crossing as a situated behavior with bridges, and pedestrian crossings. Seğmenler Park area was the longest area that allows the transversal movement. It is clearly observed that the traffic oriented design applied along the boulevard after 1960's. The reductionism in design interventions strictly limits the random activity along the new development areas.

The third analysis is the complementary analysis of second. It examines the physical barriers that are not allows transversal movement including the surrounding spaces of boulevard. The main elements that composed the characteristics of the Atatürk Boulevard had a great importance. The greenery structure, administrative district, Turkish Grand National Assembly and embassies and other public institutions constitute the modern symbolic development of Turkey. However, the symbolic meaning was created with the characteristic buildings of capital, in terms of communication; these areas mostly inaccessible for public use. Between Ulus and Kızılay surrounding spaces gave opportunities for random activities and transversal movements. Contrary to opportunities, the quality of social space in the old city center is not preserved. Central Parks loosed their importance in the social life of Ankara. Traffic oriented development and changes in transportation technology created new alternatives for public rituals. Moreover, Güvenpark is used for bus station rather than a park. In the new development areas opportunities of transversal activity is much more limited because of the symbolic characteristics and fixed feature elements of the boulevard. The Administrative District is designed with the

vision of public priority. The central pedestrian axis inside, the Güven Park, is the strong evidence of that vision. But today, it's inaccessible to public usage. Moreover, embassies are naturally inaccessible. The underground road and previous road widening interventions strictly limit the transversal movement in this area. Seymeler Park seems like the strongest point for sustaining social distance. Çankaya District is also closed for public use. The efficient transversal movement prior to random activity must be supported by not only the allowances in the boulevard but also buildings dedicated for the use of social actions, rituals. In this respect, Ulus with the theaters, opera and parks seems like the strongest point for random activity, in contrast to social degeneration.

Final three works are the synthesis of these analyses. Area 1 is the longest space spatially allows transversal movement with the unused opportunities of parks. It should be indicated that increasing flow of traffic has also affected the interaction mechanism of this area. However the great opportunities make the area valuable but transportation oriented development negatively affected the quality of ritual, and social generator buildings, parks. Bridges allows the transversal movement but, they are also the generators of disturbing affect of heavy traffic. Theaters, opera building have already been used. In addition, old historical buildings have already increasing, reminding the social symbolic meaning of boulevard. Area 2 has similar characteristics with area 1 but, The Ankara University Campus is closed to public use. On the other hand, disturbing affect of Sıhhiye Bridge also made that place spatially disabling transversal movement. Area 3 is the place of Abdi İpekçi Park which has better landscape. However, there is a heavy traffic intersection and situated type of transversal movement is sustained by pedestrian bridges; the area is appropriate for random activity. Area 4 includes the army's club that is used only by the army members. The public usage again restricted.

Starting with the Area 4 transversal movement opportunities are decreasing, however, value of spaces increasing to Çankaya District. The surrounding streets specialized on different activities has affected the value of the boulevard.

Unfortunately, The Atatürk Boulevard as the design features oriented to traffic, is used for a transportation route to reaching the surrounding streets, pedestrian areas. So, boulevard is not used for random activity, the valuable biggest space with social opportunities are not used for public interaction. Area 5 is the Zafer Square. Zafer Square has been already a living place in terms of commercial activities and a little greenery with the statue of Mustafa Kemal Atatürk. This place is a unique area that includes ceremonial structure of the boulevard and combining it with the specialized commercial activity. In contrast to the opportunities of random movement, heavy traffic also decreases the random behavior. Because of the heavy traffic, the pedestrian bridges are used for transversal situated activity. Area 6 is a crowded place for generating random activity. The subway system is also increasing the crowd. Because of the pedestrian barriers to protect the citizens from traffic and the separation affects of vehicular road causes the unapprised crowd that is moving situational. The potential of generators are not used in social interaction. Area 7 is a place for situational transversal movement. In this area transversal movement is available but the aim of the movement is only for situational purpose. Area 8 is the place of administrative district and symbolically important, Güvenpark. Transversal movement is hindered from several restrictions. Administrative district is semi-closed to public use. Only the roads and pedestrian ways are ready to use for focused movement. In addition, transversal transaction is restricted with the landscape elements and pedestrian bridges serve for crossing the road. The disturbing affect of vehicular traffic is much more than other places because of the opening intersection to Eskişehir Road. East side of the area has large pedestrian way and surrounded with pedestrian priority streets. Area 9 is The Akay Underground crossing. Apart from the heavy traffic on Akay crossing, the area allows transversal movement with a modern symbolic park of new republic. However it has not any social space and activities that support transversal movement. So, crossing is only became situational purpose. The Park of Milli Egemenlik is the only strongest opportunity for interaction. Area 10 is the entrance of Turkish Grand National Assembly. The Akay Underground road is opening to The Atatürk Boulevard at that space. So, underground road physically disallow the transversal movement. Area 11 is open for

transversal movement. However, the space has no supported activities for random behaviour. It is the last intersection before the embassies. Area 12 is starting with the embassies and goes to Seymenler Park with hindering the transversal activity. Area includes two Kuğulu underground roads. The underground roads increased the whole traffic weight along the boulevard. In addition, decreases the pedestrian area 8-14 meter. The affect of roads are destructive to the social interaction, however Kuğulu Park is still a social generator. The pedestrian way in the west side is also the smallest along the boulevard and it is hard to protect personal territoriality. Embassies have important characteristic components of the Atatürk Boulevard. Although the boulevard activities getting more situated purpose, the symbolic values to the general ceremonial character of boulevard is shaped by them. Area 13 is the last park of the Atatürk Boulevard. The last area has no physical hindrance to transversal movement. It is also supported by the large beautifully arranged Seymenler Park. But, it is also dealt out from the heavy traffic. Area 14 is the Çankaya District with a restricted entrance. However it's not a place for transversal random activity, the president's palace is the ending point of the boulevard symbolically.

In conclusion, every intervention that increases the flow of traffic decreases the transversal movement or in other words, transversal communication prior to primary communication along the boulevard. Actually, the last synthesis should be a long red line, because underground roads increase the whole flow of traffic. As it is stated in the previous chapters, transversal movement is prior to random activity that is the main concern of primary social communication mechanism. Any intervention that decreases the transversal movement is naturally decreases the social interaction and creates a conventional situational closure with triggering reductionism and alienation to space. It is important to remember that the city is a social space. So, The Atatürk Boulevard was a boulevard. From starting 1960's, interventions made it to an avenue. The symbolic structure of The Atatürk Boulevard which is converted into an avenue with the underground road intervention limits the interaction mechanism from Kızılay to Çankaya.

However; it is the symbolic development area of modern young republic. The last interventions entirely abolish the limited social interaction.

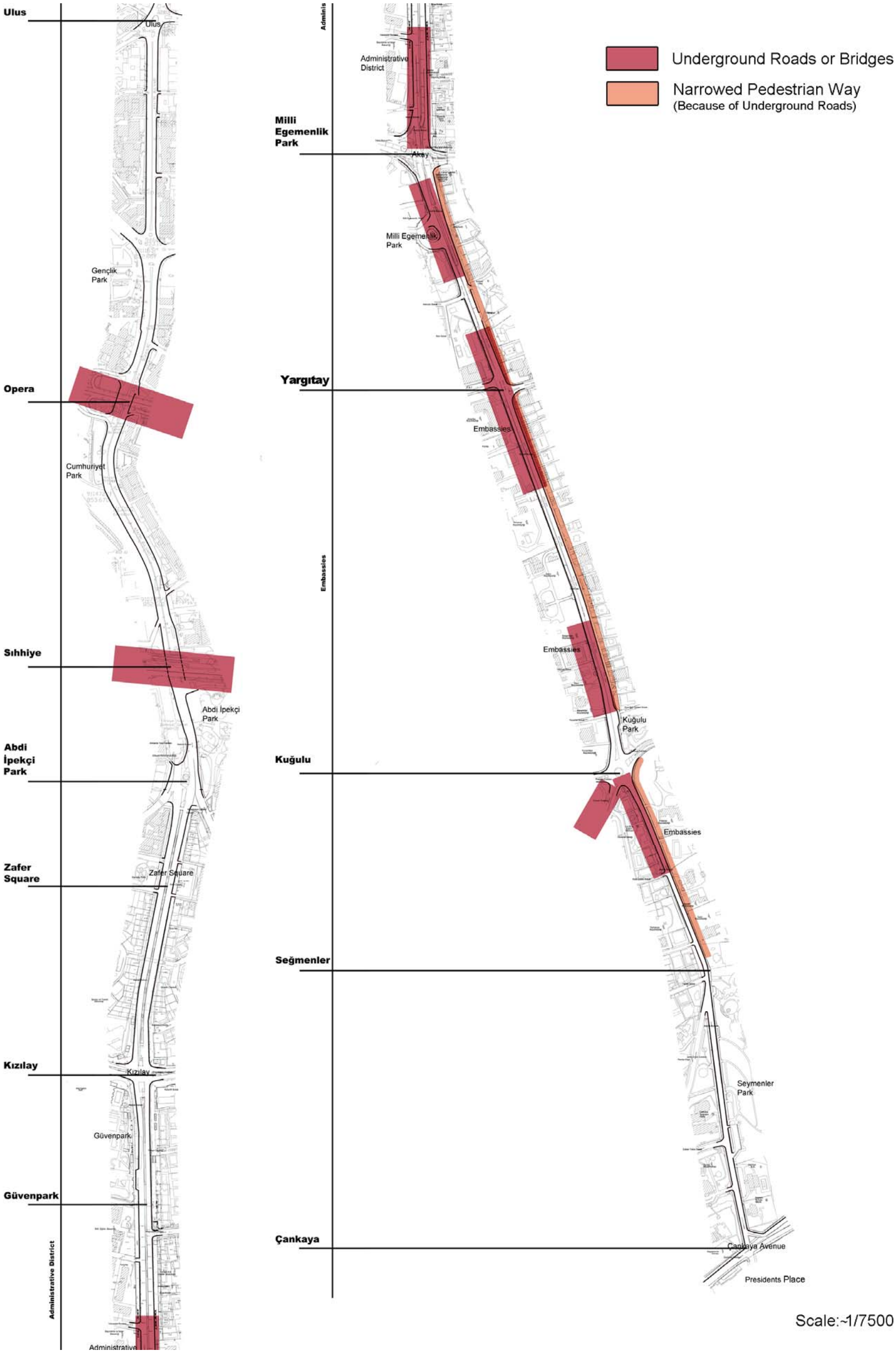


Figure 54 Undergroun Roads, Bridges and Narrowed Pedestrian Areas.
Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

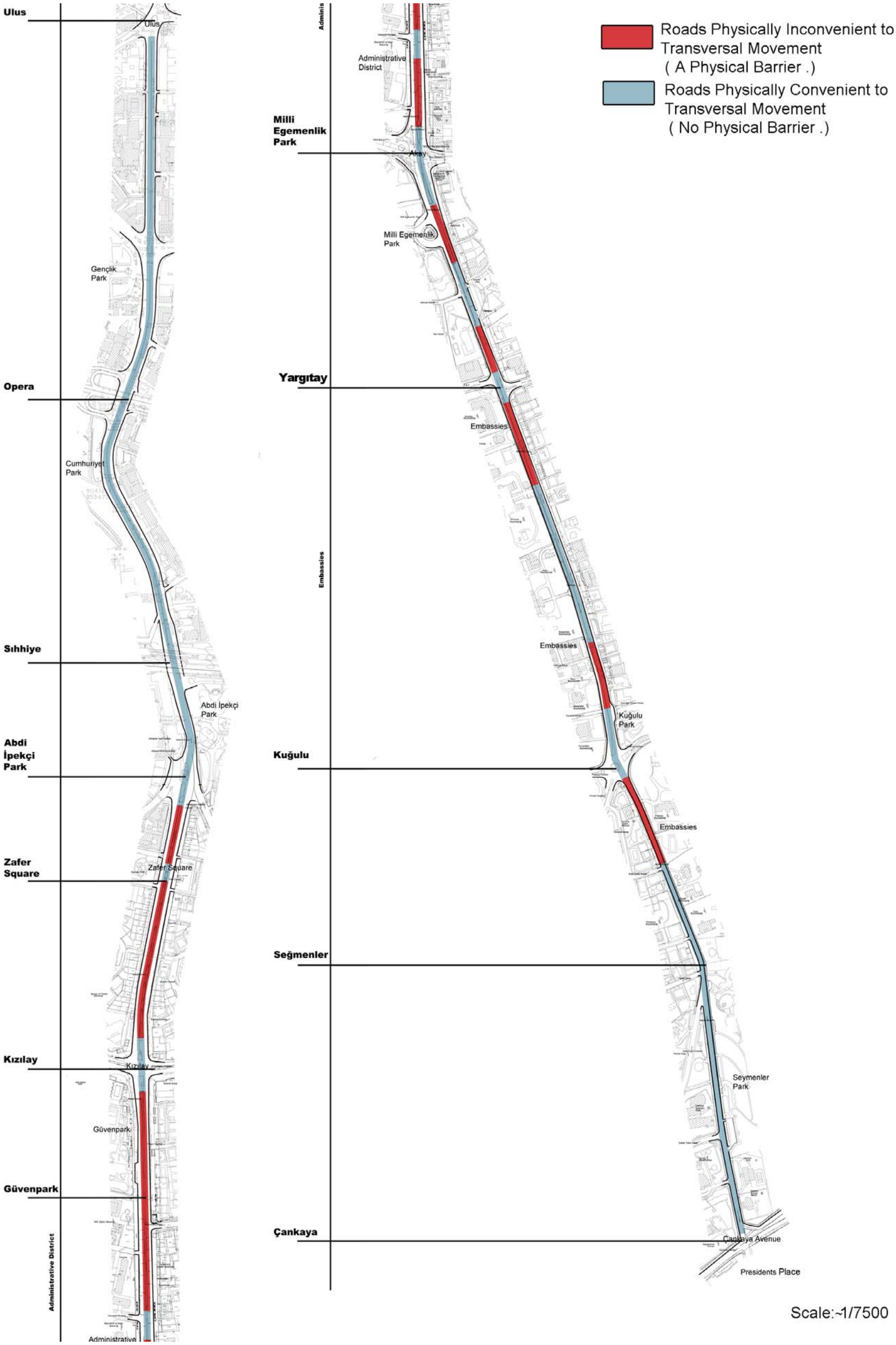


Figure 55 Spatial Convenience of Transversal Movement (Roads).
Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

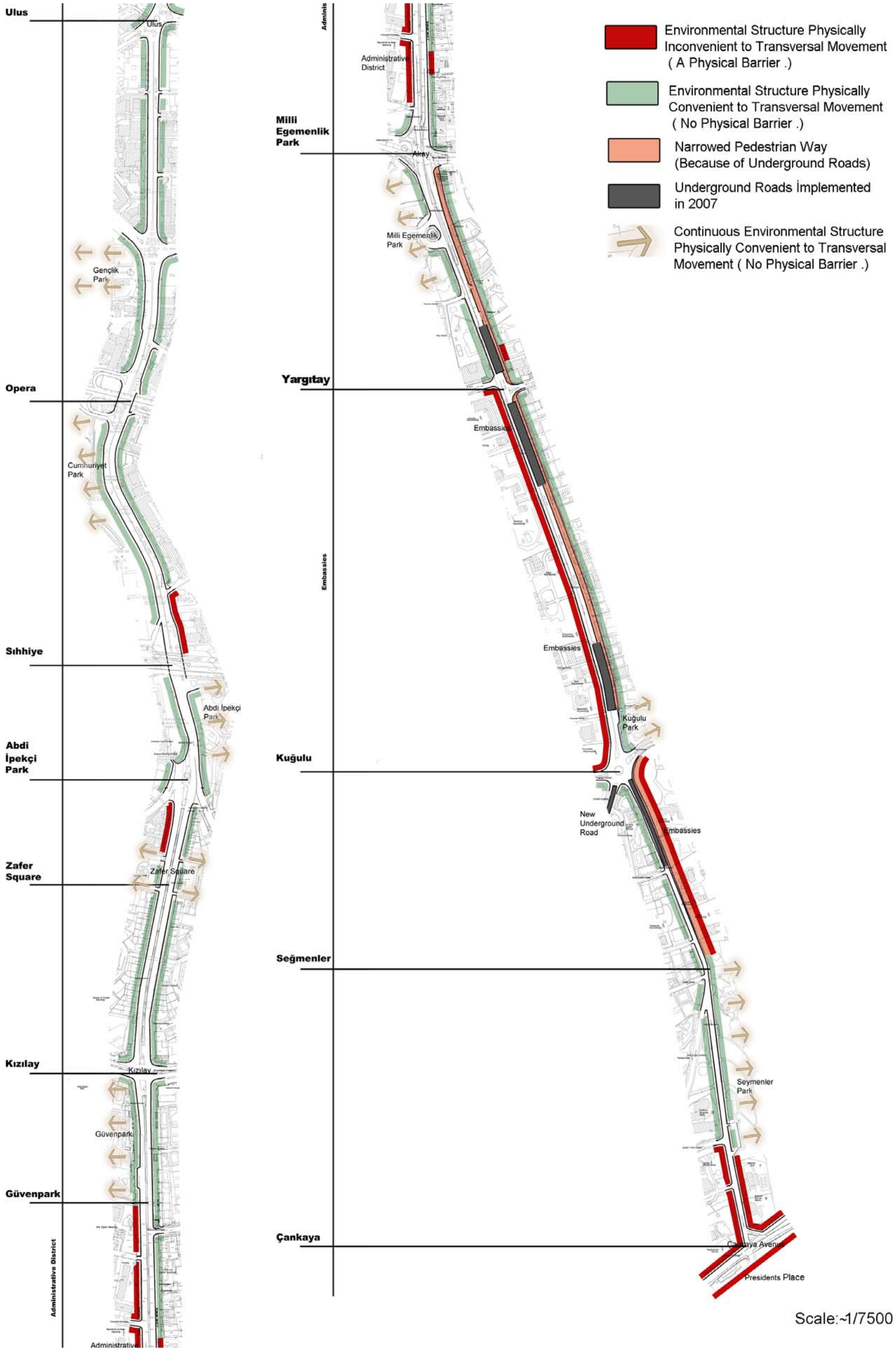


Figure 56 Spatial Convenience of Transversal Movement (Environment).
Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

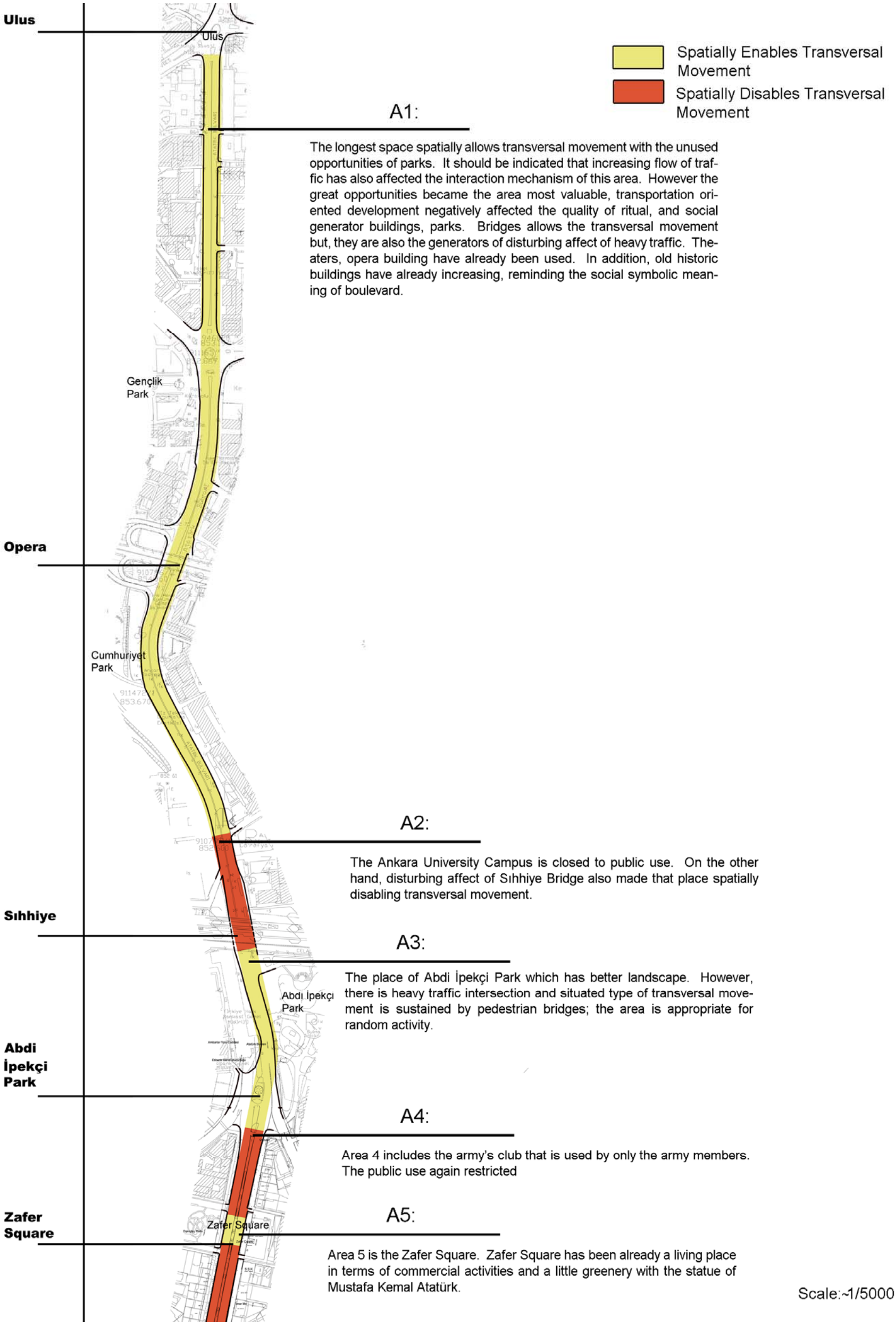


Figure 57 Synthesis of Transversal Movement.
Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

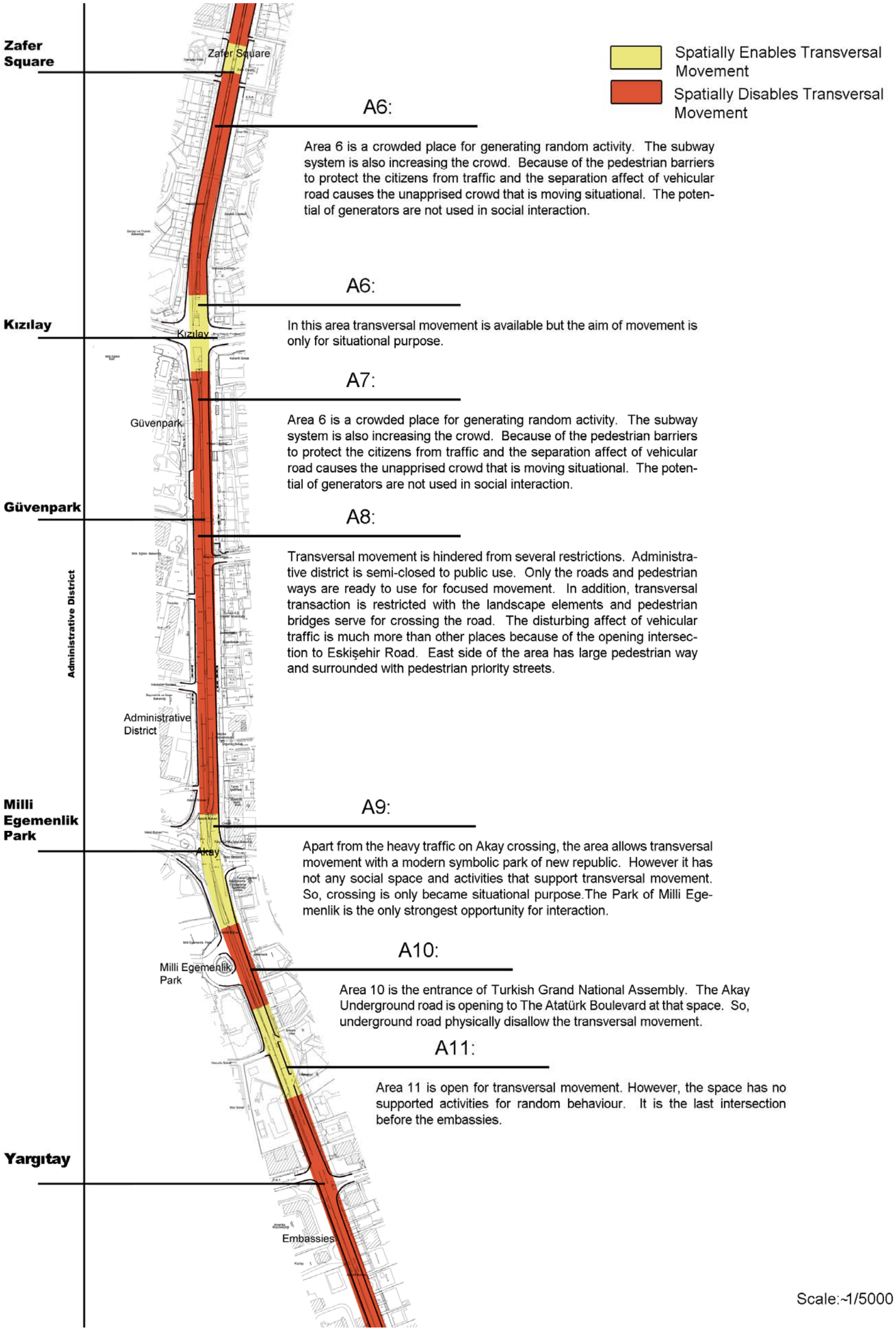


Figure 58 Synthesis of Transversal Movement.
Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

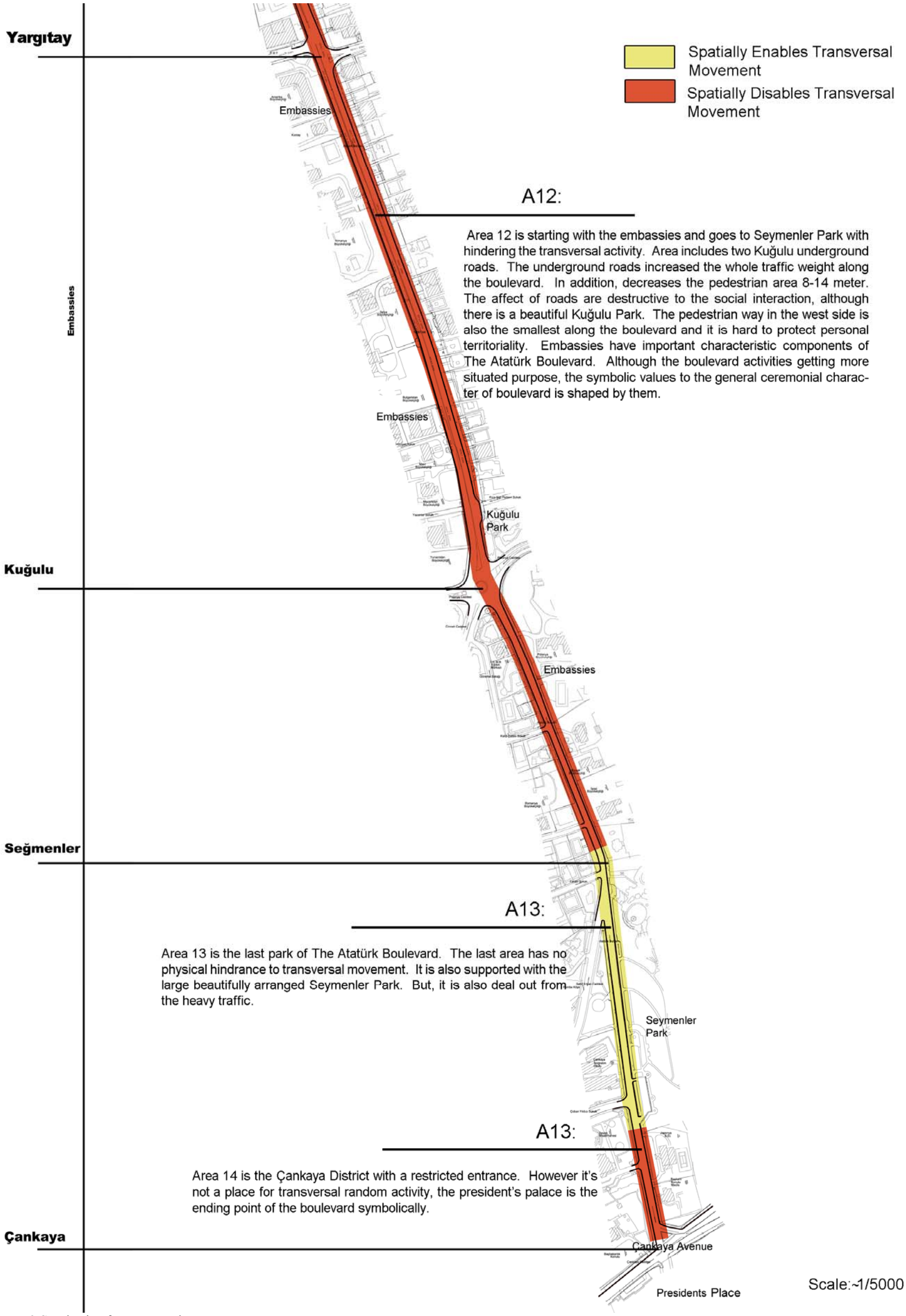


Figure 59 Synthesis of Transversal Movement.

Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

CHAPTER 6

CONCLUSION

Here, the author discussed the boulevard concept and transformation process, by means of historical evaluation, theoretical review and classifications. Finally, outcomes of theoretical chapters are applied to the case study for defining, classifying and testing the case. The aim of the study is to research and define the boulevard concept, and to evaluate the concept in terms of communication. The thesis is trying to find out the spatial measures of communication, and testing the case with these measures. Understanding, explaining and testing the boulevard concept with communication measures; a historical evaluation of boulevard, basic spatial communication theory and defining the relations between communication and boulevard are the main purposes of theoretical chapters. The case study is a sample research for identifying the Atatürk Boulevard in terms of the arguments of spatial communication measures.

Modern definition of boulevard emerged in 17th century inside the fortification walls of city. Destroyed walls created large urban spaces and open the large gardens of the houses to the peripheries of the city. The public rituals which were arranged in the *alles* of gardens, reached to the large open spaces. The boulevard with its ceremonial archetype became an important planning tool for dense modern urban macro form. The roots were the evidences of its rituals and functional structure. The simplest form of boulevard was used for the public usage; celebrations, mourning and daily, monthly, yearly ceremonies, rituals. Because of the social attribute of boulevard which differentiates it from the avenue, supports the necessities of planners as a powerful tool for planning.

City is *ad hominem*. In other words, city is a place for human. The social implication is prior in all aspects of urban elements. Communication constitutes the relation between social beings. Being a social form requires communication. So, city could be defined with communication for different needs of human. However, the social archetypes are unchangeable; the necessities of human could be evaluated according to the changing environmental conditions. The categories of communication are parallel to the changes and they construct new types of relations. Technical communication is the improved type of communication dependent to technological changes. This new technological improvements in communication comes with the diffferent problems. This type of communication is based on machine to machine communication rather than human to human. Machine interposed communication dominated the social space of urban life with the increasing density. Avenues and streets are dedicated to machine interposed communication and pedestrian interaction is divided into two pedestrian areas. The narrowing and dividing the interaction became a reductionism in planning because of the blinding affects of requirements for technical communication. In a chain reaction, pedestrian areas and boulevards are sacrificed to technical communication while abolishing the primary categories of communication. However, city as a place for human should include both categories of communication, a dominated communication technique; indirectly shapes the social aspects will reduce the social quality of space.

Environmental behaviors were used for understanding and representing the communication techniques to urban space. Technical communication is dominantly a situated activity. The situated activity as a focused interaction mechanism limits the individual random activities. Random activities are compulsory for social beings whether adapting or manipulating the environment. The balance between the activities is a dilemma of social life. Technical communication with its dominant structure of situated activity when increased, spaces which are dedicated to random activities decreased. To realize and test these balance, author demonstrated environmental behaviors as random and situated movement. In other words,

transversal movement is a random movement and longitudinal movement is a situated movement. Along the boulevard when longitudinal movement increased, the space attained to transversal movement decreased. In other words, when situated activity increased, the random activity decreased that is the main aspect of human being to adapt the urban environment. Without adaptation, the conventional situational closure occurred with reductionism in planning. This causes the alienation to urban space which was designed for human beings. The balance between the activities is so important in terms of the social aspects of life.

The thesis introduces, that the changing balance between the interactions mechanisms on boulevard is the main problem. The problem of increasing needs to technical communication is not simply solved with the enlarging channels attained to technical communication. The conventional situational closure that is because of the reductionism in planning, is such a disease that planners should overcome. Otherwise, alienation to space is the urgent result.

The Ankara Atatürk Boulevard is the significant example of experiencing the corruption of communication balance. Evidently, as a citizen the author also observed the problem; this thesis clarifies the problem with using the communication point of view. Ankara Atatürk Boulevard was established as the modern young republic's sample development area with giving the strong ceremonial features of new national identity. However, the boulevard feature of space is not only dedicated to its meaning on national identity. The buildings, parks, roads and pedestrian ways were prepared for the new social life. The design also acted for social life as same as the other examples of boulevard. The public social life, social spaces of urban form suffered from the heavy traffic. The requirements of heavy traffic are categorized as technical communication has disastrous separating affects on social interaction when they started to enter human life. However, different methods of interventions are applied to decrease the affect of heavy traffic; the interventions on Ankara Atatürk Boulevard are contrary to increase the flow of traffic. Certainly, in 1920's there were not so many vehicles because it was not affordable for every citizens. The

increasing welfare in 1960's, increased the use of vehicles. Then, it became compulsory to made plans for traffic management. But, the most important purpose of urban life that is a space for people was omitted. Every intervention on increasing the potential density of traffic supplies more vehicles and demand. Unfortunately, the last underground road interventions were the parts of that conventional situational closure. Every communication channel has a potential. Force to increase the limits of channel causes stimulation problems. The Atatürk Boulevard's ceremonial structure is the victim of such transportation oriented development after the 1960's. According to the increasing technical communication that limits the primary communication mechanisms, The Atatürk Boulevard lost its primary social feature and reduced to an avenue, an inner city highway.

It is meaningful to conclude with giving the spatial criteria's for regaining the social structure of The Atatürk Boulevard. The proposed interventions in this work aims to re-create the ceremonial, symbolic structure of the boulevard with revitalizing the forbidden transversal movement. In other words, the imbalance between situated and random activity is balanced with the spatial interventions that arouse the transversal movement. In this context, it has been explained in the beginning of chapter four that the heavy traffic in the boulevard should decrease. Decreasing the heavy traffic, underground roads have to be restored to allow transversal movement. Traffic should be slowed down with modern traffic measures to allow the transversal movement. But, it should be remembered that the generator affects of traffic on random activity of the boulevard is not deprived. The situated requirements of traffic should be allocated to surrounding avenues. Thereby, the increasing situational activity along the boulevard will be balanced with random activity. These are the main interventions that are compulsory for regaining the transversal, random movement. All these interventions should be supported with the sub-interventions to fixed featured space, semi fixed featured spaces. These interventions could be examined into specific areas that are defined in the chapter 5.

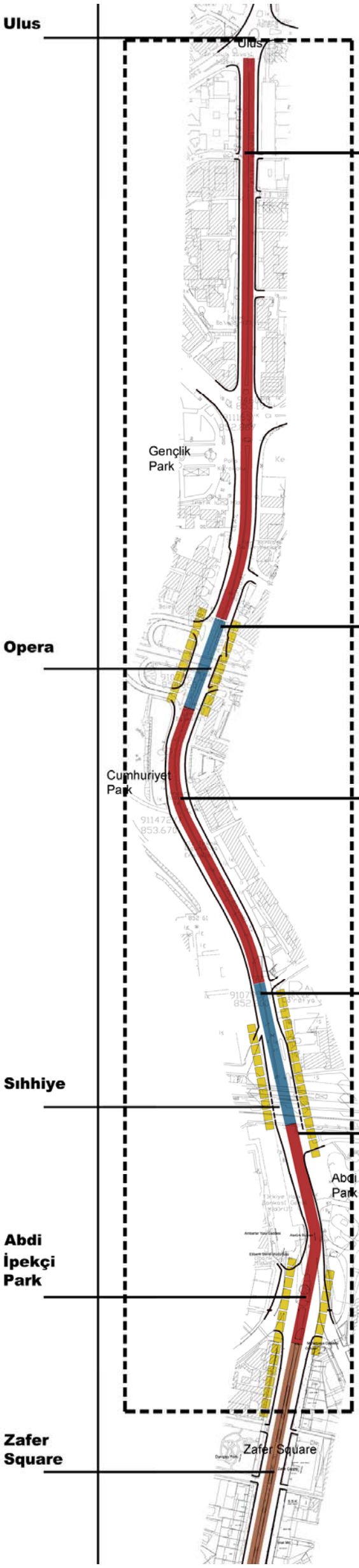
Area 1 is between Ulus and the Opera Bridge. In this area, if the density of traffic will be decreased, the spatial requirements were currently fulfilling the transversal movement and territorial necessities. This is the area of revitalization on fixed feature spaces needed. The historical buildings are giving the main meaning of the boulevard characteristically. Moreover, Gençlik Park has to be revitalized and used to be the incentive development for the area. The Opera Bridge should be integrated to the pedestrian structure. According to the nature of structure, it is not preferred to use. If it has not demolished in terms of traffic requirements, bridges have the opportunity to be designed for pedestrian activity. A modern commercial use of bridges with recreational activities helped to integrate it to the pedestrian structure; however it should be demolished preferably. Area 3 has the similar spatial configuration with area 1. The park and the buildings should be integrated. The functions for the buildings could be revitalized for helping to increase the pedestrian use. Area 4 is currently separating the parks of area 3 and 5. However, underside of the bridge is used actively by pedestrians; it should be integrated to two beautiful landscape areas. Area 5 is the last part that section of boulevard that is fulfilling the territorial requirements. It is also an important traffic junction point. This junction could be used as the opportunity of generating pedestrian activity, if the density of traffic will be decreased. In this point it is compulsory to use extra traffic regulation elements in terms of the safe transversal movement. In addition, the safety elements, barriers, pedestrian bridges in this area should be removed after the traffic decreases for sustaining the transversal movement. Area 6 basically needs interventions on semi-fixed feature spaces. The situated behaving pedestrians are offering a great opportunity for random activity. The main problem of that area is the integration problem of pedestrian ways along the boulevard and surrounding pedestrian activity. Transversal orientations of pedestrian routes have to be integrated to the pedestrian areas in the other side of the boulevard. The Zafer Square and Güvenpark are the opportunities of transversal movement. The physical barriers have to be removed in the refuge and administrative district. The random activity along the Karanfil, Konur and Selanik Street should be integrated to the boulevard. On the other hand, it is important to regain the symbolic meaning of Güvenpark and Zafer Square. The bus

stop on the Güvenpark should be removed and the pedestrian route between the administrative district and Güvenpark should be regenerated according to the implication of national ideology. Area 7 includes the Akay crossing. Starting here, transversal pedestrian movement is interrupted with the underground roads that have to be removed. Because of the similar spatial specifications, this zone is examined under the primary intervention zone as a whole. This zone needs urgent attention, in terms of the social requirements of boulevard. Starting with the Akay crossing to Kuğulu underground road, not only transversal movement, but also the situational requirement to pedestrian movement is hindered. Because of the underground roads, a pedestrian area in the west side is 30-80 cm width. The underground roads have to be removed in terms of semi-fixed and fixed feature intervention and, vehicle route have to be narrowed for pedestrian territorial need in terms of semi-fixed featured interventions. Embassies are the characteristic features of the Atatürk Boulevard, however they are inaccessible. The pedestrian area along the embassies should be widened and the landscape features can help the random activity. In addition, the transversal movement from the boulevard to embassies should be enabled. Yazanlar Street is an example for integrating the Kuğulu Park to the embassies. The east side of this zone is fulfilling the territorial requirements. But, the activities along that side are not supported the random activity. It is important to protect the characteristic buildings but, it is important to add values and land uses that supports random activity (Tunalı Hilmi Street's pedestrian activities are the biggest opportunity). Area 20 is the Seğmenler Park area. The main problem of that area is different uses between the two sides. With the fixed featured space interventions to the other side of the road helped increase the potential random activity of Seğmenler Park. The last part of the boulevard has an important characteristic place. A symbolic landmark which is integrated with the pedestrian routes of Seğmenler Park could strengthen the symbolic meaning of the Atatürk Boulevard. In general, it is understood from the typology of interventions, there are three main intervention zones. Ulus area has great territorial opportunities. If the incentives of the opportunities could be used, regenerated; the national identical characteristics of The Atatürk Boulevard and, the social structure of it could be regained. Kızılay has the problem of over

communication based on technical character. With the semi-fixed featured spatial interventions, the area fulfils the requirements of primary communication. The primary intervention zone needs a great change on distance requirements. The decreasing social interaction is stem from the underground roads in that area. It should be remembered that core problem is these underground roads that are decreasing the random activity. If the underground roads are not demolished or if any other solution has not been found, the social, ceremonial interaction artery of the Ankara that is the physical evidence of national identity will be lost.

The Atatürk Boulevard was a boulevard that is transformed to an avenue. The unique attributes of being a sample development area transformed to an inter-city road. The alienation to the boulevard space could be altered with smaller investments that were spent to build underground roads. The first responsibility of the next planning activity should concentrate on the integration of pedestrian facilities to boulevard space.

In grand manner, this thesis aims to search for the social values of boulevard with the help of communication. Boulevards, urban spaces suffer from technical communication. The reason of the problem has been rooted from the reductionism approaches in planning. According to the author, planners are not only the designers of physical requirements for human life; the social requirements of urban life should be the first responsibility. They have to concentrate on space for human life. The physical requirements have to be arranged in terms of the public priority, both in social and physical meaning. Otherwise, city as a place for human social life will loose, its meaning, as in the case of the Ankara Atatürk Boulevard.



Proposed Interventions to Fixed Featured Spaces

Proposed Interventions to Semi-Fixed Featured Spaces

Proposed Interventions to Both Spaces

Necessity of Pedestrian Integration for Transversal Movement

Necessity of Pedestrian Widening

P1:

In this area, if the density of traffic will be decreased, the spatial requirements were currently fulfilling the transversal movement and territorial necessities. This is the area of revitalization on fixed feature spaces needed. The historical buildings are giving the main meaning of the boulevard characteristically. Moreover, Gençlikpark have to be revitalised and used to be the incentive development for the area.

Tertiary Interventions Zone

P2:

The Opera Bridge should be integrated to the pedestrian structure. According to the nature of structure, it is not preferred to use. If it has not demolished in terms of traffic requirements, bridges had the opportunity to designed for pedestrian activity. A modern commercial use of bridges with small cafes helped to integrate it to the pedestrian structure, however it should be demolished preferably.

P3:

Area 3 has the similar spatial configuration with area 1. The park and the buildings should be integrated. The functions for the buildings could be revitalised for helping to increase the pedestrian use.

P4:

Area 4 is currently separating the parks of area 3 and 5. However, under the bridge is used actively by pedestrians, it should be integrated to two beautiful landscape areas.

P5:

Area 5 is the last part that section of boulevard that is fulfilling the territorial requirements. It is also an important traffic junction point. This junction could be used as the opportunity of generating pedestrian activity, if the density of traffic will be decreased. In this point it is compulsory to use extra traffic regulation elements in terms of the safe transversal movement. In addition the safety elements, barriers, pedestrian bridges in this area should be removed after the traffic will decrease for sustaining the transversal movement.

Scale:~1/5000

Figure 60 Proposals.
Source: Personal rendering from: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

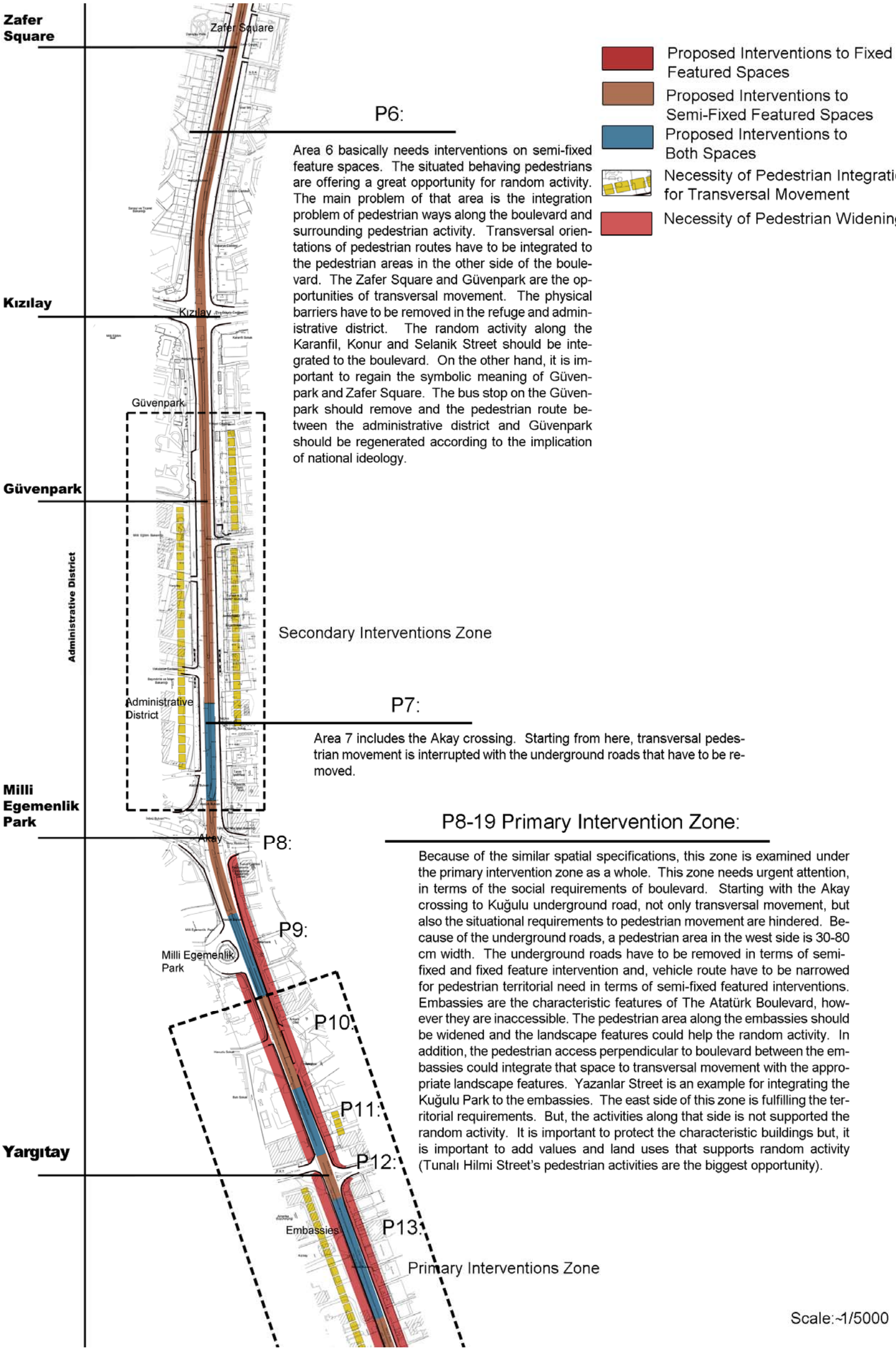


Figure 61 Proposals.
Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Maps

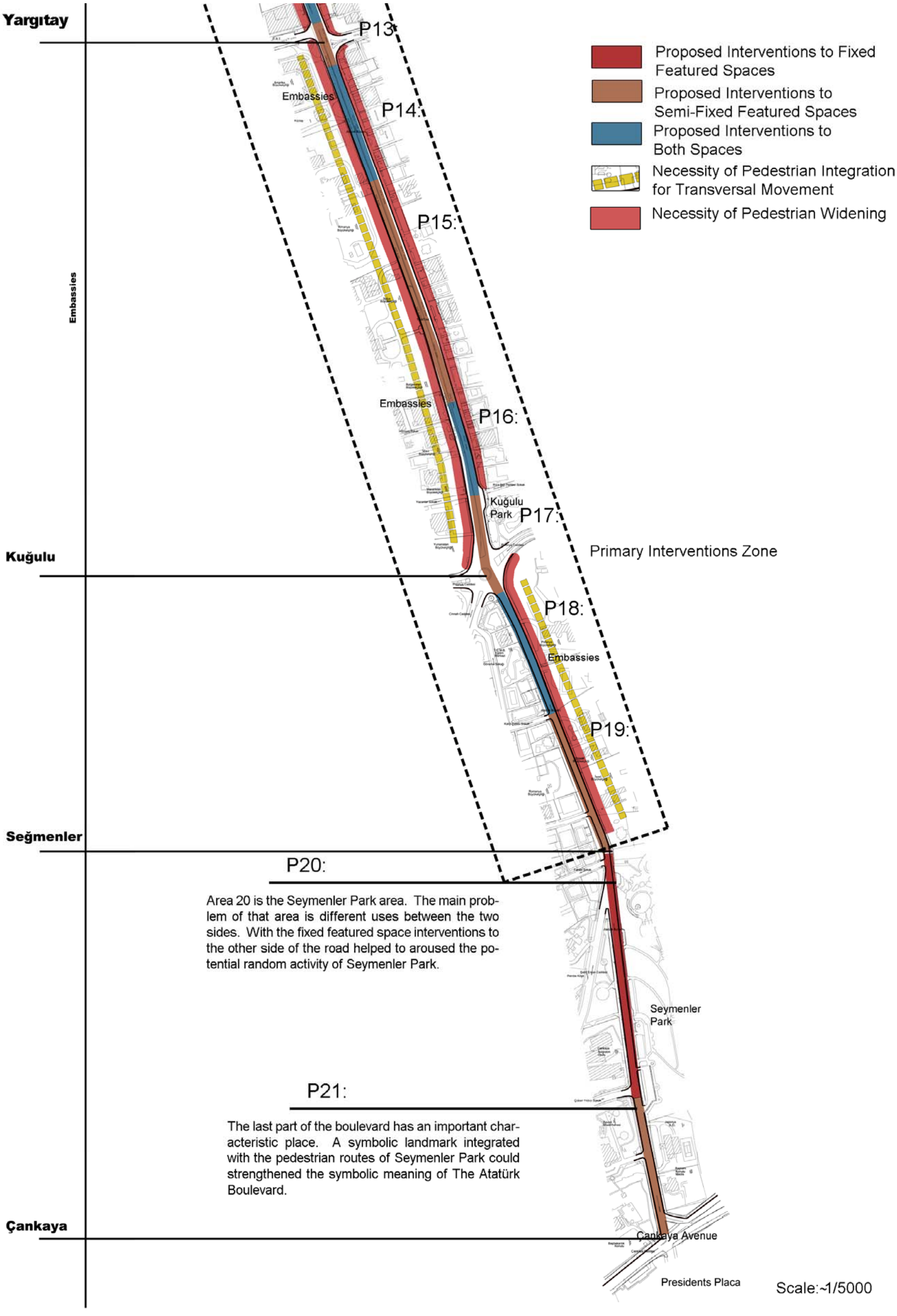


Figure 62 Proposals.
Source: Personal rendering from: Ankara Büyükşehir Belediyesi, İmar ve Şehircilik Daire Başkanlığı, (2007), 2007 Ankara Current Use Map

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APPENDIX A

NOTES OF FIGURE 21: RELATION BETWEEN WEIGHT OF VEHICULAR TRAFFIC AND PRIMARY COMMUNICATION

1: "Dangerous occasionally when trucks come by. For me, the street width is just about right… it's not too far to run across when traffic is coming." "The street is well-maintained. There is usually someone sweeping. The sidewalks are big enough to ride down on a bike and not knock down any people." "I feel it's home. There are warm people on this street. I don't feel alone." "The street life doesn't intude into the home… only happiness comes from the street. I feel my home extends to the whole block." "Variety of people, all ages. People sit on front steps and chat, visit each other. It's a comforting block, very cheerful."

2: "Lots of hot-rodders… otherwise, traffic is quiet." "Have a feeling of security on this street. I feel at home, even at night." "A friendly street. People chatting washing their cars, people on their way somewhere always drop in." "It's living in the hearth of the city. My wife is constantly looking out of the window. There are a lot of activity- old men standing talking outside their houses, kids playing... The houses are not over bearing: they are all different, with in and out facades."

3: "Traffic has increased in the last five years. Doesn't bother me, but I have to be more careful, mustn't back out of my garage too quickly." "I definitely think of it as my real home."

4: "I' m sometimes troubled by noise of heavy trucks." "Everybody knows each other."

5: "Definitely a friendly street." "I feel a sense of responsibility. I planted trees in front of my house and keep property and sidewalk clean of trash."

6: "I am worried for the kids because of the traffic." "You see the neighbors, but they aren't close friends."

7: "I keep front windows closed, but even than fine soot gets in." "Used to be nice. People were friendly."

8: "Exhaust fumes and soot come in from bedroom windows." "Nothing outstanding."

9: "Frequent traffic accidents at corners, especially at night. People drive like maniacs down this street." "I am bothered by the traffic noise at night- cars screeching."

10: "I feel angry at traffic… dust is constantly coming in, a fine powder." "It's medium place- doesn't require any thought. Medium sort of block- half-way from here to there."

11: "A friendly street. Some families here a long time, many people related."

12: "Don't feel there is any community any more, but people say hello."

13: "It's a medium place- doesn't require any thought."

14: "I can't get out of my garage easily. Sometimes I wait two minutes then I have to chance it when I do get out."

15: "It's dangerous coming out of the driveway and having to turn in front of the pack coming down the street." "I don't like living on an express street. It's

convenient, but I don't like the noise and the feeling of vulnerability." "It's not a friendly street- no one offers help." "It's impersonal and public." "Noise from the street intrudes into my home." "I find the street monotonous. I am street watcher, but there are no people to watch."

16: "You can only get into your car safely between lights." "All the cars in the world are going by out in front." "I am bored because there is no life in the street, no people, nothing to look at."

17: "It's not a friendly street, but it's not hostile."

18: "The traffic is very dangerous. There are a lot of accidents at the intersections, especially at night." "People have moved because of the noise. There is too much noise from the traffic. It's getting unbearable. They sit turning over traffic lights and then roar off when lights change." "It's used by pedestrians on their way to somewhere." "People are afraid to go into the street because of the traffic." "Just this apartment… not even that." "Traffic comes to mind, just traffic."

(Source: Appleyard, D., (1981), *Livable Streets*, California: University of California Press, Adapted and Redrawn by: Barlas, A. M., (2006) *Urban Streets & Urban Rituals*, METU Faculty of Architecture Printing Workshop p. 119)

APPENDIX B

THE FORMAL (F), INFORMAL (I) AND TECHNICAL (T) ASPECTS OF HUMAN ACTIVITY

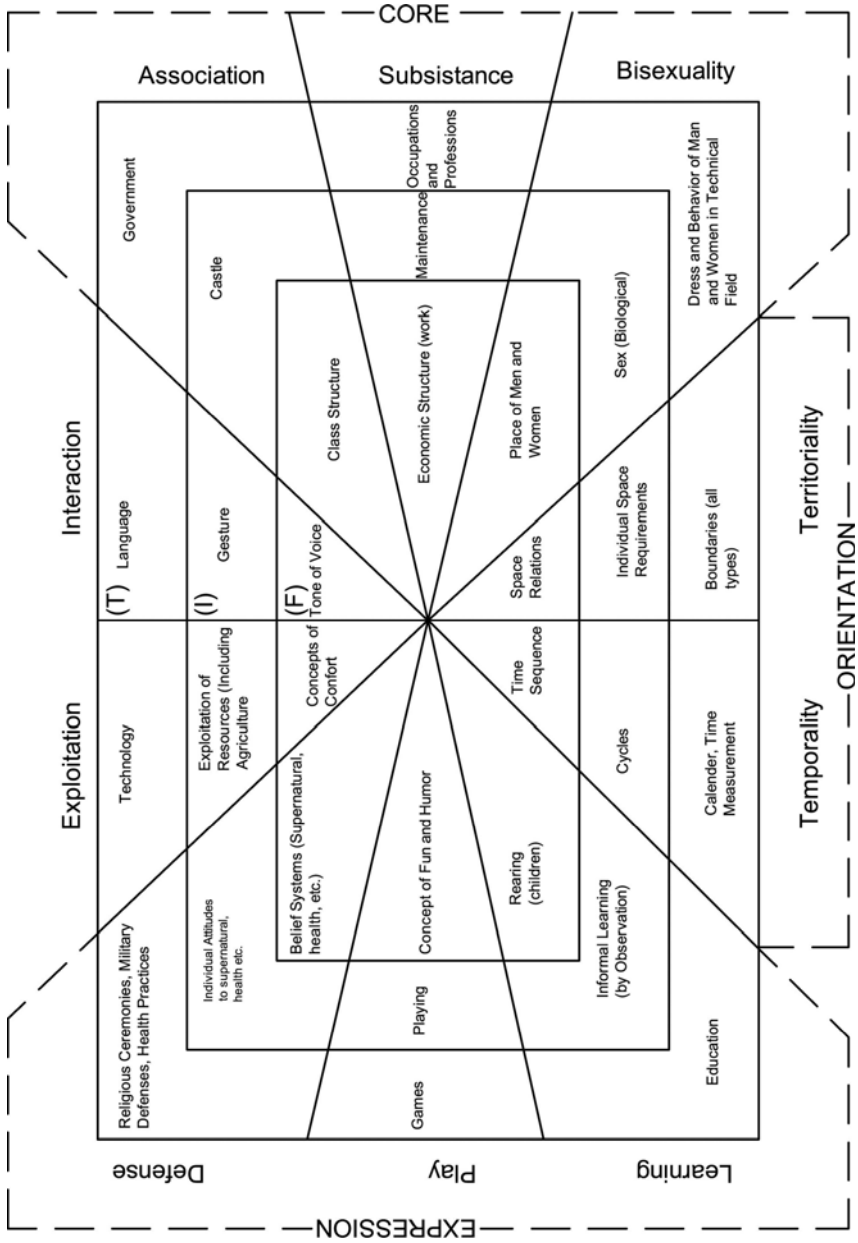

Figure 63 The Formal (f), Informal (i) and Technical (t) Aspects of Human Activity.Source: Hall, E. T., (1959), *The Silent Language*, Doubleday & Company, Inc., Garden City, New York, p.117

APPENDIX C

A MAP OF CULTURE

Table 4 The Formal (f), Informal (i) and Technical (t) Aspects of Human Activity.

Primary Message System	0 Interactional	1 Organizational	2 Economic	3 Sexual	4 Territorial
0 Interaction	00 Communication Vocal qualifiers Kinesics Language	01 Status and Role	02 Exchange	03 How the sexes interact	04 Places of interaction
1 Association	10 Community	11 Society Class Caste Government	12 Economic roles	13 Sexual roles	14 Local group roles
2 Subsistence	20 Ecoligal community	21 Occupational groupings	22 Work Formal work Maintenance Occupations	23 Sexual division of labor	24 Where the individual eats,cooks, etc.
3 Bisexuality	30 Sex community	31 Marriage groupings	32 Family	33 The Sexes Masc. Vs. Fem. Sex(biological) Sex(technical)	34 Areas assigned to invididuals by virtue of sex
4 Territoriality	40 Community territory	41 Group territory	42 Economic areas	43 Men's and women's territories	44 Space Formal space Informal space Boundaries
5 Temporality	50 Community cycles	51 Group cycles	52 Economic cycles	53 Men's and women's cyclical activities	54 Territorialy determined cycles
6 Learning	60 Community lore-what gets taught	61 Learning groups-educational institutions	62 Reward for teaching and learning	63 What the sexes are taught	64 Places for learning
7 Play	70 Community play-the arts and sports	71 Play groups-educational institutions	72 Professional sports and entertainment	73 Men's and women's play,fun and games	74 Recrational areas
8 Defense	80 Community defenses-structured defense systems	81 Defense groups-armies,police,public health,organized religion	82 Economic patterns of defense	83 What the sexes defend (home,honor, etc.)	84 What places are defended
9 Explotation	90 Communication networks	91 Organizational networks(cities,building groups, etc.)	92 Food,resources and industrial equipment	93 What men and women are concerned with and own	94 Property what is enclosed,counted, and measured

Source: Hall, E. T., (1959), *The Silent Language*, Doubleday & Company, Inc., Garden City, New York, p.222, 223

Table 4 Continued The Formal (f), Informal (i) and Technical (t) Aspects of Human Activity.

5 Temporal	**6** Instructional	**7** Recrational	**8** Protective	**9** Exploitational
05 Times of interaction	**06** Teaching and learning	**07** Participation in the arts and sports(active and	**08** Protecting and being protected	**09** Use of telephones,signals,writing, etc.
15 Age group roles	**16** Teachers and learners	**17** Entertainers and athletes	**18** Protectors (doctors,clergy,soldiers,police, etc.)	**19** Use of group property
25 When the individual eats,cooks, etc.	**26** Learning from working	**27** Pleasure from working	**28** Care of health protection of livelihood	**29** Use of foods,resources and equipment
35 Periods assigned to individuals by virtue of sex	**36** Teaching and learning sex roles	**37** Participation in recreation by sex	**38** Protection of sex and fertility	**39** Use of sex differentiating decoration and
45 Scheduling of space	**46** Teaching and learning individual space assignments	**47** Fun,playing games, etc. İn terms of space	**48** Privacy	**49** Use of fences and markers
55 Time Sequence Cycles Calender	**56** When the individual learns	**57** When the individual plays	**58** Rest,vacations,holidays	**59** Use of time-telling devices, etc.
65 Scheduling of learning(group)	**66** Enculturation Rearing Informal learning Education	**67** Making learning fun	**68** Learning self-defense and to stay healthy	**69** Use of training aids
75 Play seasons	**76** Instructional play	**77** Recration Fun Playing Games	**78** Exercise	**79** Use of recreational materials(playthings)
85 The When of defense	**86** Scientific religious,and military training	**87** Mass exercises and military games	**88** Protection Formal defenses Informal defenses Technical defenses	**89** Use of materials for protection
95 What periods are measured and recorded	**96** School buildings,training aids, etc.	**97** Amusement and sporting goods and their industries	**98** Fortifications,armaments,medical equipment,safety	**99** Material Sytems Contact environment Motor habits Technology

Source: Hall, E. T., (1959), *The Silent Language*, Doubleday & Company, Inc., Garden City, New York, p.222, 223