THE HUMANISTIC MEANING OF URBAN SQUARES: THE CASE OF ÇAYYOLU URBAN SQUARE PROJECT

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ABSTRACT

THE HUMANISTIC MEANING OF URBAN SQUARES:
THE CASE OF ÇAYYOLU URBAN SQUARE PROJECT

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Urban public squares, within the context of public spaces, are essential components of cities because they provide spaces for social interaction. This helps sustain the humanization of the society through gathering, lingering and wandering through, and engaging together into various human activities and can make significant contributions to the cultural development of communities.

In the last three decades, the concept of public space has been redefined within the context of urban space development leading to socio-spatial developments like social polarization and spatial fragmentation. Accordingly, new places like shopping malls, parking lots, heavy traffic roads have replaced traditional public spaces such as squares, plazas and neighborhood streets. These alternative public spaces, in many instances, are provided without taking into consideration the human aspects.

The aim of this study is to extract humanistic design attributes that can be used in the production of a public square in the Çayyolu District in Ankara. To do that, the study explores the meaning of urban square as a public space through inhabitants' eyes. Furthermore, it examines the socio-spatial components (regarding the behavioral, psychological, physical, visual-aesthetic, geographical and managerial aspects) of urban

square and critically reflects on the design of the Çayyolu Urban Square Project (ÇUSP), with respect to human design principles through a comparative analysis of users' and decision makers' perceptions.

Keywords: Public Space, Urban Square, Urban Square Design, Humanistic Design Attributes of an Urban Square, Çayyolu

ÖZ

İNSAN GÖZÜYLE KENT MEYDANLARI: ÇAYYOLU KENT MEYDANI PROJESİ ÖRNEĞİ

Zeka, Başak

Yüksek Lisans, Kentsel Tasarım, Şehir ve Bölge Planlama Bölümü
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Kamusal alan bağlamında kent meydanları, kentlerin temel parçalarıdır. İnsanlara bir araya gelme, vakit geçirme, gezinme ve çeşitli faaliyetlere katılma imkanı veren sosyal etkileşim alanları sunarak, onların insancıllaşmalarını destekler. Böylelikle toplumların kültürel gelişmelerine önemli katkıda bulunur.

1980'lerden sonra, kentsel mekandaki gelişmelerle birlikte, kamusal alan kavramı yeniden tanımlanmış ve beraberinde sosyal kutuplaşma ve mekansal parçalanma gibi çeşitli sosyo-mekansal gelişmelere yol açmıştır. Buna bağlı olarak, alışveriş merkezleri, otoparklar, hızlı trafik yolları gibi insancıl yönleri göz ardı eden yeni mekanlar üretilmeye ve meydanlar, sokaklar gibi geleneksel kamusal alanların yerini almaya başlamıştır.

Bu çalışmanın amacı, Ankara Çayyolu bölgesindeki bir meydan üretiminde kullanılabilecek insancıl tasarım özelliklerini ortaya çıkarmaktır. Bu amaçla çalışma, yaşayanların gözünden kamusal alan olarak meydanın anlamını araştırmaktadır. Ayrıca, meydanın sosyo-mekansal özelliklerini (davranışsal-psikolojik, fiziksel, görsel-estetik, coğrafik ve yönetimsel boyutlarıyla); ve Çayyolu Kent Meydanı Projesi'ni eleştirel olarak insancıl

tasarım ilkeleri açısından karar vericiler ve kullanıcıların algılarını karşılaştırarak incelemektedir.

Anahtar Kelimeler: Kamusal Alan, Kent Meydanı, Kent Meydan Tasarımı, Kent Meydanının İnsancıl Tasarım Nitelikleri, Çayyolu

To my family
and
Ufuk Cesur

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ÇUSP .....ÇAYYOLU URBAN SQUARE PROJECT

CHAPTER I

INTRODUCTION

This chapter introduces the aim of the study, setting and the rationale. It provides the research questions and brief discussion of the methodological framework used in this research. Finally, it presents the content of the thesis.

1.1 AIM OF THE STUDY, SETTING AND THE RATIONALE

The aim of this study is to extract humanistic design attributes that can be used in the production of a public square in the Çayyolu District in Ankara. To do that, the study explores the meaning of urban square as a public space through inhabitants' eyes. Furthermore, it examines the socio-spatial components (regarding the behavioral, psychological, physical, visual-aesthetic, geographical and managerial aspects) of urban square and critically reflects on the design of the Çayyolu Urban Square Project (ÇUSP), with respect to human design principles through a comparative analysis of users' and decision makers' perceptions. This study makes a contribution at various levels, theoretical, methodological, and practical professional.

The study is important because it explores humanistic design principles of a 'good' urban square in an initially suburban area, which later transformed into a housing and commercial development district, in the capital of Turkey. It examines the new meaning of a public square in a city which looses the public spaces of its older parts conveying modern design traces. It highlights the human aspect of space-making through a comparison of users' and decision makers' perception of a good design. The study also makes a methodological contribution by adopting both exploratory and experimental research approaches which function as a testing mechanism of the findings. In terms of practical professional, the study reveals the preferred attributes of future users of the Çayyolu Urban Square where a design project has been completed in recent years, but

not implemented yet. The findings of this study provide useful design principles by which the Çayyolu Urban Square Project can be revised to become more responsive to users' preferences. Moreover, the findings can also be applied, in general, to the design of 'successful' urban squares.

Scholars like Carr et al. (1992) and Lynch (1972) who have significantly contributed to the literature on squares see urban squares/plazas as common types of public spaces. Since the first urban formations, from Agora of the *polis*, and the open market places of Medieval towns, public spaces have always existed and been one of the fundamental components of cities. Public spaces are 'publicly accessible' places where citizens can 'gather, linger or wander through' and have positive social interactions with friends or strangers, facing differences and learning 'to understand and tolerate' others; in other words it is where communities regenerate themselves through dialogue, action and reflection together with the variety and diversity of activities (Carr et al, 1992; Lynch, 1972; Francis, 2003; Madanipour, 1996; Ataöv, 2007; Akkar Ercan, 2007; Shaftoe, 2008). More than being just arenas for "good time", public spaces also represent a significant and indispensible part of the 'democratic' community life, especially urban squares/plazas, a public property that serves as a site for free speech and free judgment of elected officials in full view of others (Worpole and Greenhalgh, 1996; Shaftoe 2008; Carr et al, 1992; Miller, 2007).

Along with the development of cities and societies, urban squares acquired more functions and, became one of the key elements of city design with their significant role of creating a gathering place for people, humanizing them by mutual contact and providing a shelter in the chaos of the city. The square, as a central formative element, makes the society "a community and not merely an aggregate of individuals" (Janicijevic, 2005; Zucker 1959,p.1).

Urban public squares, within the context of public spaces, are essential components of cities because they provide spaces for social interaction, which thereby, support the civilization and humanization of people through hearing others and being heard by others, gathering, lingering and wandering through, and engaging into various activities. This, thus, can make significant contributions to the cultural development of communities.

In the last three decades, the concept of public space has been redefined within the context of urban space development. This is part of the process of structural change in

political and economic terms. This, in turn, has led to social and spatial developments (as social polarization and spatial fragmentation) have occurred and new places as shopping malls, parking lots, fast traffic roads have begun to be produced and become as alternative public spaces to the traditional ones like squares, plazas and streets. These alternative public spaces, in many instances, are provided without taking into consideration the human aspects.

In line with many scholars (e.g., Carr et al, 1992; Francis M., 2003; Shaftoe, 2008), this thesis argues that urban plazas are for *people.* For a square to be 'real', it has to be used by people (Shaftoe, 2008). How people see these spaces, their behaviors, needs and perceptions are the basic factors that designate the 'use of space'. It is fair to state that the use of space should be a prerequisite for identifying the square a successful one. Successful urban plazas should be 'responsive to the needs of their users; democratic in their accessibility; and meaningful for the larger community and society' (Carr et al, 1992; Francis M., 2003, p.1).

Although public spaces are evidently crucial components of the cities; they have become 'subject to broad concern' for the last two decades (Francis, 1987; Carr et al, 1992; Tibbalds, 1992; Madanipour, 2000; Akkar Ecan, 2007). While primarily dealing with many other problems of the cities; city planners have neglected the fundamental importance of the squares as a basic factor in town planning. As Shaftoe (2008, p.5) points out, without good urban public spaces, we are gradually about to move into an "increasingly privatized and polarized society, with all its concomitant problems".

The changing nature and typology of public spaces of Ankara involves examples of public spaces that have been produced in most Turkish cities for the last decades. Moreover, it requires a special attention as the capital of the Republic of Turkey, which has represented a modernizing country through socio-spatial transformation. It is fair to claim that the declaration of Ankara as the capital city has significantly changed the city's destiny. The era denoted with the republic is the most productive and planned period in which public spaces and squares are introduced. Later in the 1950s, and after the 1980s the changing political and economical mechanisms have gradually diminished the production of public space in the city, and thereby today, Ankara has become a 'squareless' city, a city without squares and public spaces, as a result of the fragmentation processes in the city center. The development of new housing and commercial structures in the outskirts of the city has induced a process of fragmentation. City plans suggest the inclusion of public squares but they are mostly plain voids, vacant

spaces, transportation nodes or plazas provided in shopping malls (Ataöv, 2007; Shaftoe, 2008). On the other hand many existing squares and public spaces have been sacrificed in favor of transportation decisions and private interest.

Governments and local authorities are the major actors who take place in the production of public spaces and squares. Since the proclamation of the republic, Ankara has also been experiencing a socio-spatial transformation based on the enlightenment and modernity discourses on social, cultural, economic and political grounds (Sargın, 2002, p.33). In this respect designs of the public spaces are developed through the ideological preferences and decisions of the administrators. Sargın (2002, p.32) states that the public spaces are designs of 'bourgeois elites'. Furthermore, in line with Sargın, Aydın et al (2005, cited in Ayoğlu, 2010, p.23) argue for an inverse proportion between elite designed public spaces and people's use of these spaces. In other words, these spaces turn into unused areas by inhabitants, which can be described as 'squarlessness'. This put "users' perception" in a significant position that needs to be further explored. Considering the deterioration of urban squares/plazas and the social significance of such spaces call for the need to define urban squares particularly from users' perspectives. What makes people to use such spaces and what is the definition of the 'good' urban square for them appear as leading questions that can contribute to the process of public square production apart from the perceptions and decisions of administrators.

These changes call for regenerating and/or re-producing inner-city urban squares which take people into account. In recent years, there has been a globally increasing concern about creating public spaces in cities. This interest arose due to various social, cultural, economic reasons including new urbanism, increasing demand for outdoor facilities, museumization of historic sites, social polarization, privatization and, in general terms, globalization. Today, local authorities attempt to regenerate public squares not only in existing urban neighborhoods, but also in relatively recent development areas.

In Ankara, the inner public squares continue to be under the threat of destruction due to the transportation planning decisions, which are taken by higher decision making authorities. However, the trend of public square regeneration has been observed especially within the boundaries of district municipalities. Among these, in 2009, The Municipality of Yenimahalle has initiated a design process of an urban square, the Çayyolu Urban Square Project (ÇUSP), in the Çayyolu District, one of the leading middle-and-high income development areas along the Eskişehir Road (Doğan, 2008). Çayyolu presents particularly an interesting district to study for. It is one of the early examples of

the peripheral developments in the city during the decentralization process, that is now an autonomous and a growing district assigned as sub-center in 2023 Capital Ankara Plan.

This study uses ÇUSP to explore the design components of a 'good' urban square from Çayyolu inhabitants' eyes and compare them with the centrally driven design principles adopted in ÇUSP. This project is particularly chosen as a case study considering the 'limited' provision of public squares/plazas by local governments in the last decades, and the consideration of suburbs as unlikely places to find central social spaces and public life (Skartvedt, 2009, p.10).

Within this framework, it is important to study urban squares regarding its social meaning for the community. Urban squares within the context of public spaces are the primary components of cities allowing people come together and socialize. Especially Ankara, having an urban morphology that is growing piece by piece, needs many of this kind of spaces. Similarly Çayyolu, as a district composed of numerous gated communities each closed to its own world, needs a variety of outdoor spaces of freedom like open spaces and green areas. In Çayyolu, Arcadium (shopping mall) – which is located adjacent to the ÇUSP area – acts as a public space; yet it is an indoor space whose main concentration is commerce. It does not provide a breathing space or introduce opportunities for interacting with the natural environment. ÇUSP represents the only urban square project in a peripheral development (suburban district) in Ankara. ÇUSP, named as "Democracy Square", is not only about introducing an open space, however it is foremost more vital to have a humanistic approach and to be more responsive and democratic to its users' needs and preferences; which should be investigated through a scientific inquiry.

As mentioned previously, in the last two decades the meaning and the physical production of urban space in Ankara has changed in parallel to a development process in the outskirts of the city. The north-western development of the 1970s shifted towards the south-western part, especially along the Eskişehir Road (Doğan, 2008, p.120). In the 1990s, the south western and southern parts of Ankara became more developed parts of the city compared to the other sections. Çayyolu started to be transformed in the mid 1980s. Housing with better urban services and in lower densities has attracted especially high income households (Akın, 2007, p.238-239; Doğan, 2008, p.121, Güvenç, 2001, p.18). Akın's (2007) study shows that the inhabitants of Çayyolu prefers living in the area due to its high living standards and peaceful environment.

The proposed ÇUSP is located in the center of this south-western housing development along the Eskişehir Road, immediately behind the main street of the district: the '8th street', where the major public transportation takes place (Figure 1.1 and 1.2). It is surrounded by dense residential areas, such as Koru Sitesi, Konutkent and Oyak Houses. The site is in the middle of social and economic activity nodes. Arcadium shopping center, bazaar area, supermarket, bookstores and cafes are located in the south; mosque, sport fields, kinder gardens and theatre are located in the west of the proposed square area. Ali Rıza Bey Forest takes place in the north-western part of the site.

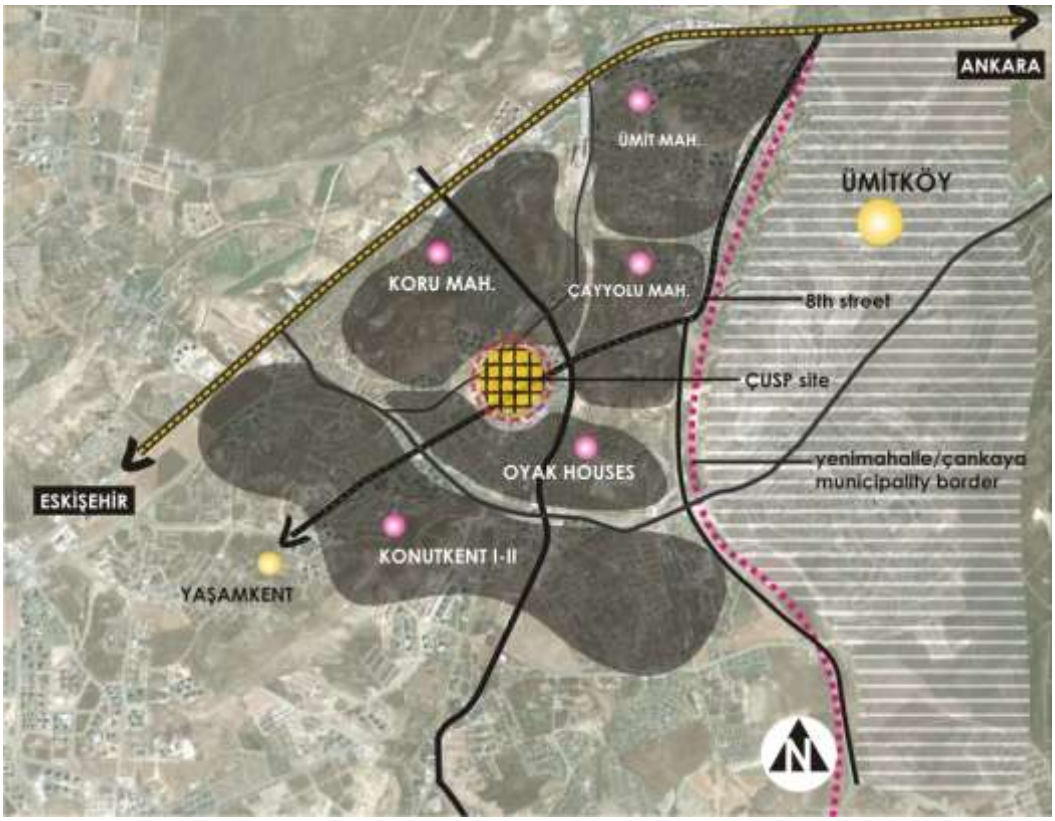


Figure 1.1: Location of the proposed Çayyolu Urban Square Project (ÇUSP)

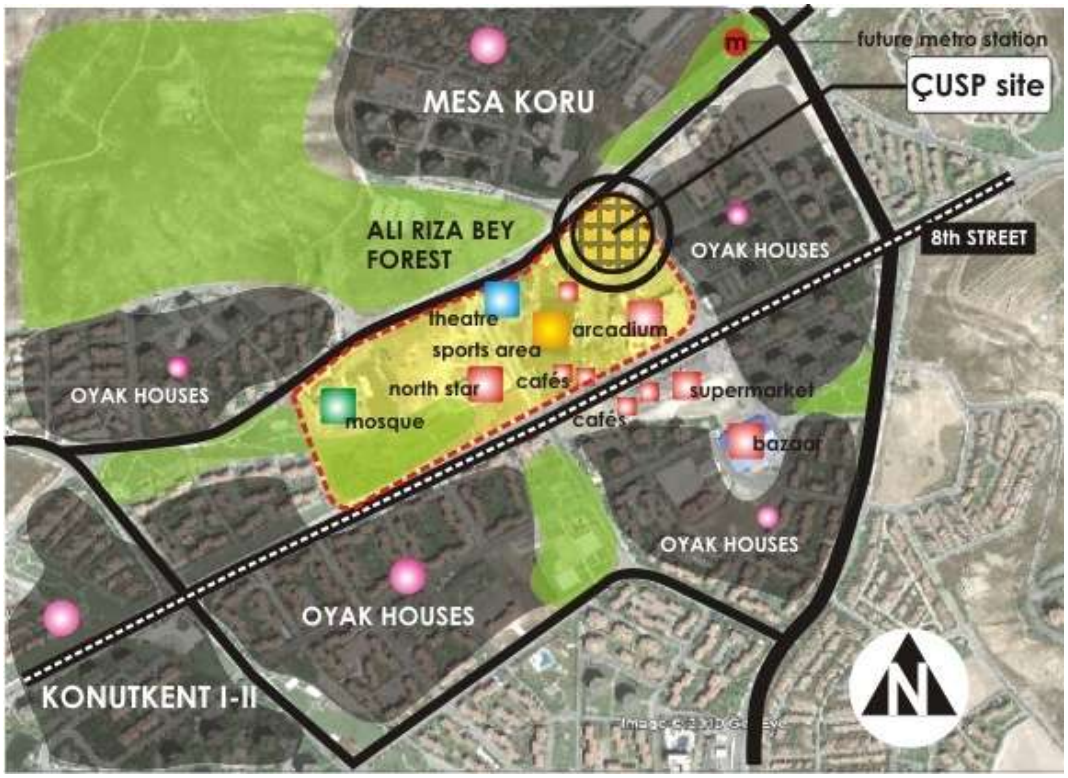


Figure 1.2: Location of the social and economic activity nodes surrounding the proposed ÇUSP site

This study intends to respond the main following question: **"What kind of an urban square can be produced in Çayyolu?**". Respectively, this study addresses four challenging issues. First, the study attempts to explore inhabitants' perception of a 'good' urban square. To do that, it extracts the in-depth meaning of a good public square. Second, the study examines users' assessment of a good public space with respect to perceived attributes predefined in previous studies, as well as users' evaluation of Arcadium (the adjacent shopping mall to the ÇUSP area) with respect to their definition of a 'good' public square. Third, in reference to the theoretical arguments on differences of preference between users and design professionals, the study intends to extract decision makers' intention to formulate the design principles of ÇUSP. Fourth, the study aims to assess differences across user groups of different ages and genders as well as differences between users and decision makers.

Considering these challenging issues, I intend to respond to more specific questions related to the users' perception, decision makers' perception, and differences between groups (Figure 1.3). These questions are as follows:

1) What is the perception of the Çayyolu inhabitants (future users of ÇUSP) for a 'good' urban square?

2) What are the preferred attributes of a 'good' public square? Do perceived attributes of a 'good' urban square explain Arcadium users' preferences?

3) What is the local authority's approach on urban squares and their intention while introducing the ÇUSP?

4) How do perceived attributes explain differences between age/gender groups and between users and decision-makers?

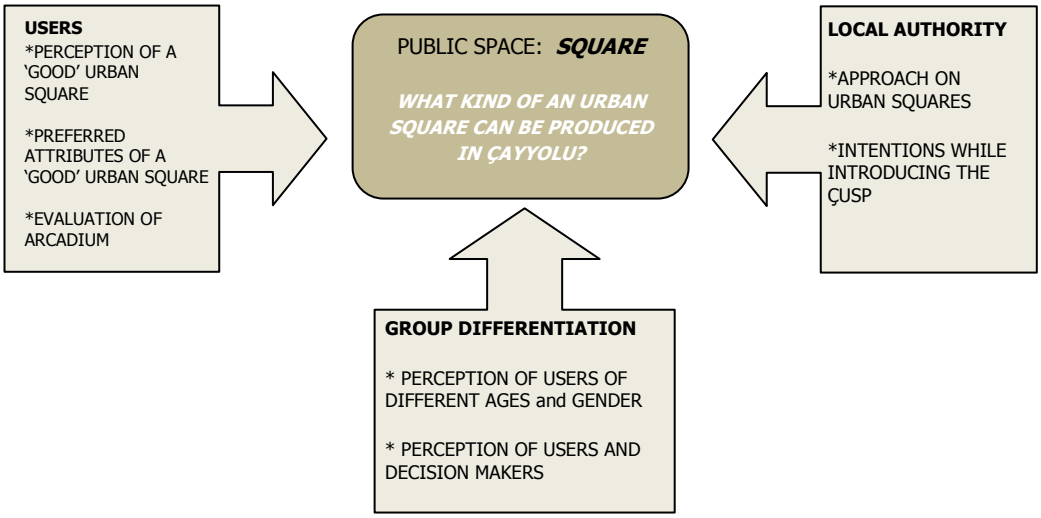


Figure 1.3: Conceptualization of the research question and the sub-questions of the study

Within this framework, the study aims at revealing inputs for designing a humanistic urban square. In conclusion, the study structures its main concentrations on better understanding the meaning of an urban square as a public space; exploring the human design features of an urban square; and considering the significance of user's point of view for a "good" public space production. Within the methodological context, emphasizing the role of "people: users" in revealing the human design features of the square the study uses perceptions of the users' and the local government's approach for the production of an urban square. In this respect, the study will methodologically pursue both "exploratory" and "quasi-experimental" research approaches.

1.2 CONTENT OF THE STUDY

This study is composed of four main chapters apart from the introduction and conclusion parts.

First of all, in order to understand the perception of a 'good' urban square, study draws a theoretical framework with respect to the human behavior concept, and the square concept within the context of urban space. Second chapter dedicated to the fundamental concepts of human behavior and the definition of the square concept, focuses firstly on the man-environment relationship and defines this relationship through perception, cognition and spatial behavior; secondly chapter makes a definition of the urban square at first, then introduces the roles of the square, recent increasing interest on it and the design criteria.

Third chapter examines the historical background of the square concept in order to better understand the scope and the significance of an urban square and integrate the theoretical framework of the study with the historical basis.

The approaches, theories and definitions are introduced in the second chapter, and afterwards, in the third chapter historical evolution is analyzed according to these theoretical base. During historical background part of the study, besides Western experiences, Turkish city is also taken as a matter of concern in case of capital city Ankara in order to have a better perception of the Turkish urban space and square approaches.

The following chapters concentrate on the case study, regarding first of all, in chapter four, the research methodology; and in chapter five the case study area and research findings. Chapter four introduces the methodological framework of the study including the research approaches, variables being tested, data gathering and data analysis techniques.

Fifth chapter firstly presents the case study area within the context of Ankara and explains the Çayyolu Urban Square Project design and implementation process. Secondly it introduces the research findings presenting the results that came up from the in-depth interviews carried out with the inhabitants of Çayyolu and the analysis of the previously defined attributes for the 'good' urban square. Finally it introduces the local authority's approach and the group differentiations in terms of perceived attributes.

CHAPTER II

THEORETICAL FRAMEWORK

This chapter presents the theoretical framework of the study related firstly to the human behavior and secondly to the definition of the square concept within the context of urban space. First section of the chapter introduces the man-environment relationship; and defines this relationship through motivations and needs, perception, cognition and spatial behavior. Second section makes a definition of urban square with a gradual approach in reference to the urban space and public space discussions, then section introduces the roles of the square, recent increasing interest on it and the design criteria.

2.1 FUNDAMENTAL CONCEPTS OF HUMAN BEHAVIOR

Urban plaza is a significant component of cities regarding the opportunities it provides in terms of socialization and development of one's self together with its spatial and physical attributes. This study focuses on revealing the users' perception of a definite physical setting: the urban plaza where such a 'man-environment' relationship is realized. In this respect, this section of the study aims to understand how man is related to the built environment within the context of the perception of an urban plaza. Based on the factors of behavior namely man's motivations, needs, and perceptual and cognitive abilities as the affordances of the environment, this part of the study concentrates on the concepts and processes of the human behavior approaches.

2.1.1 MAN-ENVIRONMENT RELATIONSHIP

There are a number of approaches concentrated on man and environment relationship. One of the recent studies (Patricios 1975; Lang 1987) with an 'ecological approach to

environmental perception and cognition deals with the factors underlying behavior at the micro scale, such as buildings, urban complexes and open spaces' (Barlas, 2006, p.7).

Particular 'perceptual processes' contribute to obtaining information about the environment and Gibson's (1966) model best illustrates them (Barlas, 2006, p.16). The information collected about the environment is argued to be emanated from 'the affordances of the environment' (Barlas, 2006, p.17). The term affordance is introduced by Gibson (1979) and refers to "both the environment and the organism in a way that no existing term does" (Şahin, 1996, p.7). 'Affordances' is defined by Gibson (1979, cited in Barlas, 2006, p.18-19) as follows:

> *"The affordances of anything, be it material or nonmaterial, are those properties that enable it to be used in a particular way by a particular species or an individual member of that species. These properties can be physical properties of the configuration of an object or setting that allow it to be used for some overt activity. They also afford meanings and aesthetic appreciation. Some things are afforded by an object or environment –terrestrial, animate or cultural- more readily than others; some activities and/or interpretations are afforded some people and not others by a particular configuration of the built environment*."

Barlas (2006, p.19) states that the 'built environment' provides spaces for different kinds of 'behaviors' affecting 'perceptual processes'. In other words, 'the affordances of the environment limit or extend the behavioral choices of an individual' in line with the order of the environment and considering the existence of cultural and individual differentiations as well (Gibson, 1979 cited in Şahin, 1996, p.8). For instance, according to Barlas (2006, p.19) "horizontal surfaces support movement and locomotion; the combination of vertical horizontal and sloping surfaces may afford and provide for shelter from the weather, concealment, and security". Briefly put, as Lang (1994) points out, there are two main aims of 'the affordances of the built environment' which are to 'provide support and shelter for human activities and to serve for the communication of the meanings' (cited in Şahin, 1996, p.8).

It is evident that the definition of built environment is strongly related with human behavior. On the other hand, it is important to understand the process of human behavior with its basic concepts in order to better grasp the man-environment relationship.

2.1.2 HUMAN BEHAVIOR AND BASIC CONCEPTS

The fundamental processes of the human behavior taking place during the interaction between individual and his/her environment as introduced by Gibson (1966) are illustrated in Figure 2.1. Following the framework of the figure below, this section of the study will focus on giving information about the major elements contributing to the environmental perception and cognition approach. The discussion will proceed from *motivations and needs*, to *perception*, *cognition and affect*, and finally to *spatial behavior*.

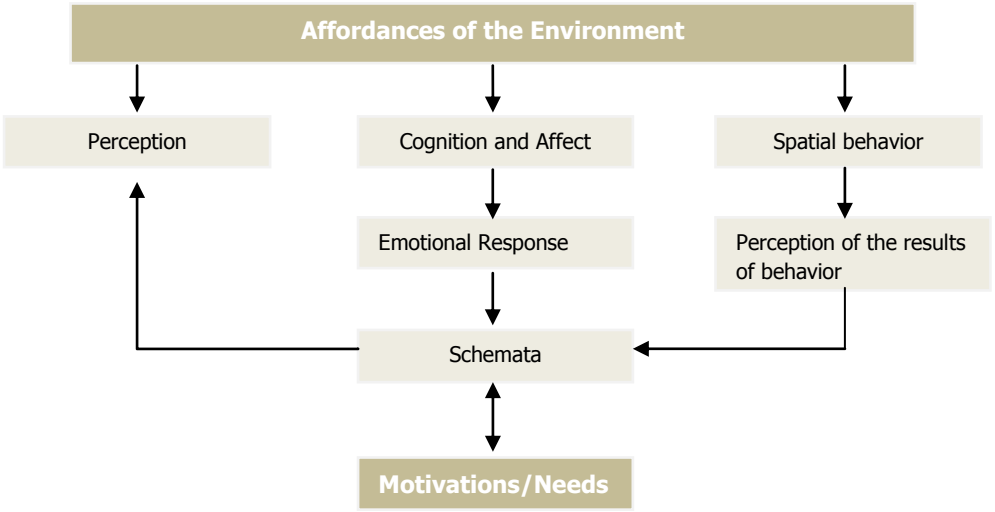


Figure 2.1: The Fundamental Components and Processes of Human Behavior, Source: Lang, 1987, p.84, adapted from Gibson, 1966 cited in Barlas, 2006, p.16.

2.1.2.1 MOTIVATIONS AND NEEDS

Motivation is the 'guiding force behind behavior' and is strongly related with the satisfaction of the human needs (Barlas, 2006, p.20; Şahin, 1996, p.10). Many scholars constitute models that are dealing with the identification of the relationship between 'motivation and human behavior'. There are two significant models among them used in 'understanding the affordances of the built environment', Leighton's Model (1959) and Maslow's Model (1943, 1954) (Barlas, 2006, p.20).

Leighton's Model deals with the human needs as: physical security, sexual satisfaction, the expression of hostility, the expression of love, the securing of love, the receiving of recognition, the expression of spontaneity, orientation in terms of one's place in society

and the places of others, the securing and the maintenance of membership in definite group, and belonging to a moral order (Barlas, 2006, p.20; Şahin, 1996, p.11). This model copes with the affordances of environment at two levels, the *instrumental level* (such as security) and the *symbolic level* (such as recognition by and membership in a group) (Barlas, 2006, p.20).

Maslow's Model deals with the hierarchy of human needs, 'from the strongest to the weakest' suggesting a list of levels of human needs that need to be met within an order from strongest to the weakest (Barlas, 2006, p.20-21). The list is composed of following levels:

-PHYSIOLOGICAL NEEDS: are related with the fundamental survival needs of an individual for food and water.

-SAFETY NEEDS: are about the provision of safety and security, protecting self from the danger imposed by other people or animal species, or from the harm of weather conditions.

-BELONGING AND LOVE NEEDS: are about one's affiliation needs of being loved; including such needs as group membership, friendship, kinship and affection.

-ESTEEM NEEDS: are related with one's desires about to be held in esteem by herself/himself or others.

-ACTUALIZATION NEEDS: express the individual's needs about the fulfillment of his/her capacities.

-COGNITIVE AND AESTHETIC NEEDS: refer to the needs such as: the desire to become knowledgeable and the desire for beauty for its own sake.

According to Barlas (2006, p.21), Maslow's model represents an appropriate framework for the analysis of the 'built environment and its affordances' and he briefly identifies the built environment as,

> *"... providing for physiological needs, through shelter; for safety needs, through physical and psychological security; for belonging and esteem needs, through symbolism as well as through sets of activities; for actualization needs through the freedom of choice among a, preferably large, number of activities; for cognitive*

needs, through access to opportunities to maintain self development; for aesthetic needs, through formal and symbolic beauty."

Some of the mentioned needs are physiologically, some are sociologically or psychologically based and some others are based on a mixture of all these. Cultural and personal variations result with a differentiation in these needs. However, it is evident that the more stronger the needs are, the more physiologically based they are. In this respect, moving down the hierarchy, weaker needs seem to be psychologically based (Barlas, 2006, p.21; Şahin, 1996, p.12).

According to Barlas (2006, p.21-22), 'built environment' is very significant during the satisfaction of individuals' needs, particularly while the satisfaction of the weaker needs. And consequently, these needs guide our perception of the world and actions taking place within it.

2.1.2.2 PERCEPTION

There is a correlative relation between man and environment which is to be realized through *perception*. Perception is 'stimulated by sight, sound, smell or touch that offer clues about the world around'; however, perception represents a more complex structure about 'understanding of stimuli' (Carmona et al, 2003, p.87-88). Briefly perception is defined as "the process of obtaining information from and about environment" (Barlas, 2006, p.22).

Taking into consideration that perception is guided by motivations and needs, there are basically two major theoretical approaches where first approach, the *inferential approach*, relates perception with sensory experiences (using previous experiences to understand what is being seen). In this respect, Gestalt Theory focuses on senses as active and interrelated systems (Barlas, 2006, p.22; Childs, 2004, p.119). The leading scholars focused on Gestalt Theory and perception put forward that "there are forms we perceive that are dependent on the whole structure of an image" (Childs, 2004, p.119; Barlas, 2006).

Secondly, in contrast to the approaches focusing on the 'senses' and the 'role of experience' such a radical theory introduced by Gibson (1966, 1969, 1979, cited in Barlas, 2006, p.22): the *ecological theory* of perception which argues that perception is information based and senses are 'perceptual systems' (Barlas, 2006, p.22).

Some scholars like Kevin Lynch (1960) and Montgomery (1998) studied the urban environment as it is a mental product, a vision of environment that differentiates for each person depending on the previous experiences. Pocock and Hudson (1978, p.33 cited in Carmona et al, 2003, p.88) also point out this uniqueness of the every individual's urban image.

Individuals' reactions and interpretations differentiate, although the sensations are similar; in this sense perception is not only a 'biological process', but is also 'socially and culturally learnt' (Carmona et al, 2003, p.88). 'Age, gender, ethnicity, lifestyle, length of residence in an area and the physical, social, cultural environment in which a person lives and was raised' may be influential on the differentiation of the environmental perception of an individual (Carmona et al, 2003, p.88). Emphasizing the use of *mental maps, images of places and environments, and shared images* in environmental perception studies, Carmona et al (2003, p.88) point out the existence of a 'common' image of an environment in a number of individuals' minds, due to the parallelisms in terms of their 'socialisation, past experiences and the present urban environments', although each individual is experiencing his 'own world'.

Regarding the significance of perception during the production of such a common image of an environment, the following section will be dealing with the dimensions of perception namely cognition and affect.

2.1.2.3 COGNITION AND AFFECT

Cognition and affect are the other major components of the human behavior taking place as the dimensions of perception. Cognition deals with gathering, arranging and storing data and basically it is the ability to 'make sense of the environment' (Carmona et al, 2003, p.88; Barlas, 2006, p.23). Cognition is also about 'thinking, learning, remembering, feeling and mental development' (Barlas, 2006, p.23). Affect, referring to the feelings, deals with the emotional aspects of perception considering 'likes and dislikes' which allows comprehension of 'value and attitude formation' (Barlas, 2006, p.23; Carmona et al, 2003, p.88).

Many scholars developed theories about perception and cognition, and looked for the reasons of likes and dislikes. As Barlas (2006) reviews, behaviorists and psychoanalysts are the two major schools of psychology dealing with cognition where *behavioral*

approach concentrates on the like or dislike process of individuals that are related with 'the process of socialization'; *psychoanalytical approach* focuses on the unconscious parts of the minds of psyches; and on the other hand, *Gestalt Theory* studies the way that the process of liking occurs by associating meanings with the environment in relation with the geometric forms of the environment.

Together with all these theories built environment can be identified and meanings associated to it by individuals can be better comprehended. However to completely understand the process of human behavior spatial behavior will be continuously discussed.

2.1.2.4 SPATIAL BEHAVIOR

Spatial behavior is another aspect of human behavior which deals with the 'people's use of the environment' within various scales (Barlas, 2006, p.29). The one appropriate to this study is the spatial behavior at the micro-scale that covers a range from *rooms*, *buildings*, *streets*, *squares* to *residential districts* and *neighborhoods*.

The major concepts of spatial behavior are as follows: *personal space*, *privacy*, *territoriality* and *behavior setting*. Personal space 'is a mechanism that helps one attain and maintain his/her privacy' where privacy refers to the aspect of *control*ling one's self and/or people's 'interactions with others' (Barlas, 2006, p.29). Territory signifies a delimited space, private for a person or a group, which becomes a place solely by the realization of the 'psychological identification' (Barlas, 2006, p.30).

Barlas (2006) refers to various studies about the identification of human territories such as Newman's (1972) classification of spaces in terms of *private*, *public* and *semiprivate* and/or *semipublic*. Degrees of privacy in this hierarchy range from the living room of one's house as the private space, to the city's town hall square as the public space (Gehl, 1987, p.60); on the other hand, semiprivate spaces may be considered as gardens in front of the single-family residential units whereas classrooms or the gardens of the multi-family residential units can be considered as semipublic spaces (Barlas, 2006, p.31-32). In this context urban squares are identified as the public spaces taking place in urban fabric.

The final concept of spatial behavior is the behavior setting which is introduced by Barker (1968, cited in Barlas, 2006, p.33). Behavior setting involves a *standing pattern of*

behavior (a repeating activity), the *milieu* (an individual's social setting or environment), *synomorphy* (appropriate structure between the behavioral aspects and the individual's environment), and a *specific time period* (Barlas, 2006, p.33-34). Briefly put, these features represent that various physical settings of *milieus* may result in various kinds of behaviors.

Consequently, human needs and motivations are the primary components of the human behavior. Environmental perception and cognition approach deals with the process of human behavior in the built environment. Understanding human behaviors allows one to understand the built environment as well. This study concentrates on revealing the users' perception of an urban plaza through which man and environment relation is realized. This perception process is directly related with the physical setting of the environment. Following chapter will focus on the concept of urban square including physical dimensions.

2.2 DEFINING URBAN SQUARE

This section of the chapter introduces the definition of urban square within various frameworks. In the first part, section focuses on the meaning of square within the spatial context. In the second part it presents the roles and functions of the square. Then in the third part, it puts forward the discussions on recent increasing concerns about the square. Finally it concentrates on the design principles of a good urban square.

2.2.1 URBAN SQUARE WITIHIN THE SPATIAL CONTEXT

This part concentrates on the meaning of urban square within the spatial context. To do that, this section of the study gradually focuses on the urban space, public space and finally urban square (Figure 2.2).

Figure 2.2: Gradual spatial context of approaching urban square

2.2.1.1 URBAN SPACE

Understanding 'what the urban space is' is crucial before moving into the meaning of an urban plaza. In other words, it is important to understand urban space in order to transform it into an urban plaza.

Norberg-Schulz (1979, p.11) defines space as the "three dimensional organization of the elements", "a three dimensional geometry". Urban space, on the other hand, is directly related with people, objects and events (Madanipour, 1996, p.3), "where streets, squares, parks, playgrounds and gardens are all voids that have been limited or defined to create an enclosed space" by the surrounding structures (buildings etc.) (Zevi, 1957, p.30 cited in Madanipour, 1996, p.7-8). Similarly Trancik (1986, p.63) and Norberg-Schulz (1979, p.11) pointed out the "creation of enclosure" as a significant factor for the perception of space.

Many scholars have been identified urban space with a number of different perspectives. Giedion (2002) identifies space concepts within a historical perspective in three categories. First category covers the Egyptian, Sumerian and Greek space concept which is created by the interaction between volumes. Second category begins with the Romans, having a space concept same as the interior space. The third category taking place in the 20th century, had a concept of "space-emanating qualities of free-standing buildings". Postmodernists criticized modernist urban space concept (in the third category) as being "limitless and abstract" (Madanipour, 1996, p.9) and modern city buildings as "simple-shaped volumes, *floating in a sea of ill-formed space*" (Alexander et al., 1987, p.67).

Kevin Lynch (1960) identified the cities and the urban space through the famous five elements: *paths*, *edges*, *districts*, *nodes* and *landmarks*; relating both on the physical form and the symbolic aspects. Lynch's elements all together provide a complete image of the city: "districts are structured with nodes, defined by edges, penetrated by paths, and sprinkled with landmarks . . . elements regularly overlap and pierced one another" (Lynch, 1960, p.48-9, cited in Carmona et. al., 2003, p.90).

Colquhoun (1989, p.223) defined urban space as "social space" and "built space". While built space concentrates on the physical space and "its morphology, the way it affects our perceptions, the way it is used and the meanings it can elicit"; social space deals with the "spatial implications of social institutions". Colquhoun(1989) claims that the traditional differentiation of social and physical space depends on the "role of social functions", similar to the modernist approach: "form follows function". In this respect, he criticized

modernists as they see the city a byproduct of social functions and in the end producing one particular type of urban space. He also asserts, like postmodernists, the physical and social spaces should be held separated. And yet he sees physical space as an "autonomous formal system" (Colquhoun, 1989, p.224).

Krier (1979, p.15) also having a physical approach of urban space, identifies space as the form ("without imposing aesthetic criteria"). Therefore he defines urban space as the "external space", "all types of space between buildings in towns and other localities".

Some other scholars deal with space through a different conception. They define urban space as it is perceived by "senses" and "intellectual interpretations" (Madanipour, 1986, p.12). This approach further detailed by the studies on "real space" and "mental space". Lefebvre is one of the leading scholars who offers a way to fill the" gap between mental and real space" (Madanipour, 1996, p.15). In order to fill this gap, he introduces the concept of "social space", "the space of social life, of social and spatial practice" (Madanipour, 1996, p.16). He asserts that the "mental, physical, and social dimensions of space" should not be kept separate.

Lefebvre (1991, p.38-40) puts forward the "three moments of social space" as: perceived, conceived and lived spaces which he thinks to be interconnected. He introduces perceived space within the context of *spatial practice* regarding the organizational setting of space and its use [materializing such "a close association between daily reality (daily routine) and urban reality (the routes and networks which link up the places set aside for work, 'private' life and leisure)]. Secondly he introduces the conceived space of the representors calling the moment as *representations of space*. This is "the dominant space in any society" which is " the space of scientists, planners, urbanists, technocratic subdividers and social engineers". Thirdly he introduces the *representational space* in the moment of lived spaces. This is the "space as directly lived through its associated images and symbols, and hence the space of 'inhabitants' and 'users'". Representational space is "overlapping physical space and making symbolic use of its objects" (Madanipour, 1996, p.17). According to Lefebvre, "before the 20th century ,the ways in which space was perceived, conceived and lived were interconnected, as was the case in Western towns, from the Italian Renaissance and the 19th century" (Madanipour, 1996, p.17-18).

To summarize, the concept of urban space need to take into consideration the physical, social and symbolic aspects at the same time.

Besides these space discussions, place is also a significant notion that is to be considered within this context; since it is a part of space "that is occupied by a person or a thing, and is endowed with meaning and value" (Madanipour, 1996, p.23). In other words, place is the sensual experience of space.

Madanipour (1996, p.23) states that "if space is allowing movement to occur, place provides a pause". Norberg-Schulz (1979, p.6) defines the concept of place as; "something more than abstract location… a totality made up of concrete things having material substance, shape, texture and colour". Moreover, apart from these physical properties, Trancik (1986, p.112) associates the concept of place with the 'cultural and human characteristics', stressing the contextual meaning based on the cultural or regional scope of the space, as what makes a space a place with a "unique character". These "intangible cultural" aspects of place are fundamental for people to 'develop themselves, their social lives and their culture' (Trancik, 1986, p.113). The Latin concept for "sense of place" is "*genius loci*", 'which suggests that people experience something beyond the physical or sensory properties of places, and can feel an attachment to a spirit of place' (Jackson, 1994, p.157).

Building on the ideas of some scholars such as Relph (1976) and Canter (1977), Punter (1991) and Montgomery (1998) identified the elements of sense of place. Following figures show the components of 'sense of place' (Figure 2.3, 2.4).

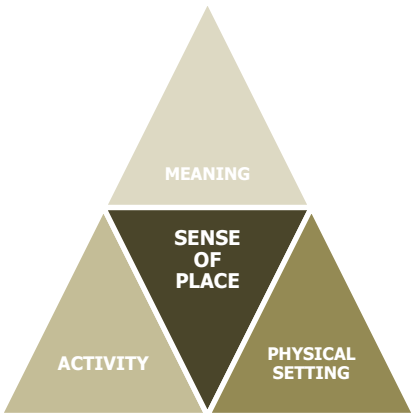


Figure 2.3: Elements of the sense of place according to Punter (1991), Source: Carmona et. al., 2003, p.99.

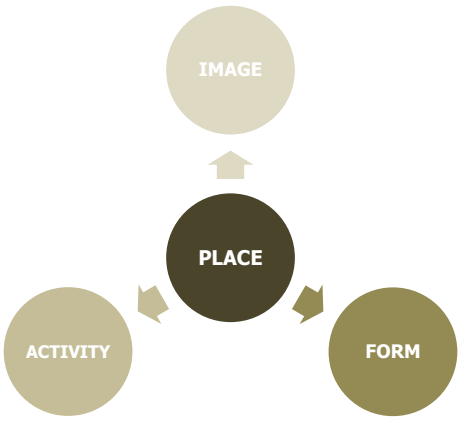


Figure 2.4: Elements of the sense of place according to Montgomery (1998), Source: Carmona et. al., 2003, p.99.

Both Punter and Montgomery set out the elements of place as *activity* and *physical form*; in addition to these, the *image* and *meaning*, mainşy putting emphasis on people, their perceptions, values and meanings (Carmona et. al., 2003, p.105). Place making is significant for the creation of successful public spaces, which constitutes a particular setting in which the social life takes place.

2.2.1.2 PUBLIC SPACE

Urban spaces are important components of daily lives (Francis, 1987,p.23). Such activities of daily life take place both in public sphere and private sphere. According to Madanipour (1999, p.140), the differentiation between these 'public and private spheres of life' is the fundamental feature of social and political setting anywhere in the world and anytime in history; and identifying urban spaces as *public* and *private* is the major way of spatial organization.

Private places are separated from the remaining parts of the city space, covered by a complex system of signification (such as boundaries, fences, walls, gates, or predetermined working hours etc.) and owned by specific entities (Madanipour, 1999, p.140). In contrast, public places are accessible for everyone with less restrictions.

In John Gehl's (1987, p.15) famous terms, public space is "*the life between buildings*" together with such basic qualities as: "presence of other people, activities, events, inspiration, and stimulation".

The term 'public' has various definitions related with community. In this respect, 'public space is provided by the public authorities, concerns the people as a whole, is open and available to them, and is used or shared by all the members of a community' (Madanipour, 1999, p.140-141).

Carr et. al. (1992, p.xi) defines public space as "the common ground where people carry out the functional and ritual activities that bind a community, whether in the normal routines of daily life or in periodic festivities". Tibbalds (2001, p.1) sees public realm as the most significant element of cities and towns where 'public have physical and visual access' and most importantly 'human contact and interaction' is realized.

Besides the concerns on 'public' accessibility, public spaces deal mainly with bringing people together (Trancik, 1986, p.65). Public spaces are spaces where citizens can 'gather, linger or wander through' and have positive social interactions with friends or strangers, facing differences and learning 'to understand and tolerate' others; in other words it is where communities regenerate themselves through dialogue, action and reflection together with the variety and diversity of activities. (Shaftoe, 2008, p.4-5; Worpole & Greenhalgh, 1996; Francis, 2003, p.2-4; Ataöv, 2007; Akkar Ercan, 2007). "Civic Commons" is another term introduced by Childs (2004, p.22) referring to the physical spaces that are ideally 'open to all people for the exercise of their (*roughly equal*) rights'.

Being more than just places for "good time", public spaces are the significant and indispensible parts of the 'democratic' lives (Shaftoe 2008, p.5; Carr et al, 1992; Miller, 2007, p.ix; Childs, 2004, p.3), being a public property they serve as a site for free speech and free judgment of 'elected officials in full view of others' (Miller, 2007, p.1).

Today, despite the discussions about public space and its "death" due to the increasing concerns on the creation of "cyber-public-spaces" (simulations of cyberspace and in virtual realities), public spaces are not yet to be demolished and people "are not ready …. to abandon physical space for more esoteric worlds" (Kayden, 2005, p.136, cited in Shaftoe, 2008, p.11).

Public space concept covers a wide range of roles and functions in a variety of physical setting such as streets, squares, plazas, market places and parks. As also Lynch (1960) emphasizes, public spaces are the significant nodes and landmarks in the cities; and in this respect, this study aims to focus on the public urban spaces such as squares and

plazas which are the fundamental types of public spaces contributing to the city designs as the key elements (Krier, 1979; Moughtin, 2003).

2.2.1.3 URBAN SQUARE/PLAZA

The term *plaza* originates from Spanish and refers to 'urban square'. The Dictionary of Architecture and Building Construction (2008, p.284), other than the previous definition, defines plaza as 'any large open urban space, often linked to a prestigious building'. Concurrently this dictionary defines urban square, as 'an urban public open space, often planted or paved, surrounded on all sides by, in front of or between buildings' (2008, p.357). Every society have its own terminology for such urban public open spaces. Italians use the term 'piazza' for 'a square or open space' and in Turkish context, 'meydan' is used to denote 'a square' or 'wide, plain, open spaces and places of entertainment or meeting'. Obviously, all these terms address a common point which is: *'the open space for public use'* concept of urban plaza/piazza/square. In this respect urban squares have a social aspect regarding its public dimension and a spatial aspect due to its physical organization.

Scholars further detailed the definition of urban square. Jackson (1985) defines urban square as the 'urban form that draws people together for passive enjoyment' (cited in Marcuse & Francis, 1998, p.14). According to Lynch (1981, p.443) urban square is the "activity focus" in the center of dense urban areas. He states that ". . . it will be paved, enclosed by high density structures, and surrounded by streets, or in contact with them. It contains features meant to attract groups of people and to facilitate meetings".

Krier (1979) who deals with urban space with a physical perspective, on the other hand, puts 'square' to the center of city design together with streets. However he criticizes the contemporary squares as being incomparable to the ones created until the 20th century; and claims that "squares" today should be rediscovered (Krier, 1979, p.19). He emphasizes the importance of the *location* of and *functions engaged* to the square in order to 'generate activity twenty-four hours a day'. Moughtin (2003, p.87) who similarly sees urban plaza as the fundamental component of the city design, defines urban plaza as 'an area framed by buildings and an area designed to exhibit its buildings to the greatest advantage'.

Childs (2004, p.22-23) defines squares as 'designed commons' (*commons are physical spaces to which a group shares a set of rights* [p.21]). Childs puts three points of square as commons that are:

-outdoor places enclosed by the fabric of a town
-of a size and shape that allow members of the fabric to interact as a social group
-intended as a public commons and regulated and designed to support this role. They have walls that provide a sense of enclosure.

Marcus and Francis (1998, p.14) defined the square with its spatial, physical dimensions as follows; "plaza is . . . a mostly hard-surfaced, outdoor public space from which cars are excluded. Its main function is as a place for strolling, sitting, eating, and watching the world go by. Unlike a sidewalk, it is a place in its own right rather than a space to pass through".

Consequently, squares are publicly accessible, open spaces which covers variety of functions in various spatial organizations. Next section will identify the roles and functions of squares.

2.2.2 ROLES OF AN URBAN SQUARE

This part of the study focuses on the roles and functions of contemporary urban squares. It gives brief information about reasons of using a square and identifies the utilities that squares provide.

Urban squares have a variety of roles and functions since they are the essential forms of public spaces that attract large number of people with a wide range of activities. Looking at the agora of Ancient Greece, sets out the basic roles and functions of a plaza. William Whyte (2009, p.339) quotes from R. E. Wycherley's (1969) study of the agora, in order to highlight the "parallel" roles that are still considerable today. Wycherley (1969) writes as follows:

> *"A fairly open space was all that was needed. . . . A roughly central site was adopted, since the agora had to provide a convenient focus for the city life in general and for the main streets. . . . The same free space sufficed for all kinds of purposes. Here people could assemble to be harangued; the only equipment*

needed was some sort of tribune for the speakers, and possibly seats for men of dignity."

In time, some administrative buildings were included; open colonnade (the stoa) with a 'general-purpose structure', served as a place for shops. Whyte (2009, p.339) states that "the agora was a sociable space" since it allowed one to 'amble' through and 'pause' to chat with a friend under the shading trees and it provides 'a number of convivial places at which to stop'. Whyte puts out such major roles of agora as political, economic and social roles, pointing that they are valid even today. With the idea of agora in mind, the contemporary roles of squares will subsequently be identified.

Urban square is a place where people gather and fulfill their a variety of social, cultural, political and economic needs. It is a place where people have positive social interactions, meet each other, have lunch, hold a friendly chat, watch the world go by, read something, rest for a while or shop around. Besides, urban plazas are the stages of political debates yet today this is not the main function as it used to be (Tavakolian, 1990, p.3; Whyte, 2009, p.339).

In general, similar to the overall public spaces, an urban square has physical, ecological, psychological (including mental health and wellbeing), social (including learning experiences and human communication), political, economic, symbolic and aesthetic roles (Akkar Ercan, 2007, p.115-119; Shaftoe, 2008, p.12-15; Tavakolian, 1990, p.10-17).

2.2.2.1 PHYSICAL ROLES

Physical roles of squares include tools and facilities in order to serve for the daily needs of people. Squares provide a pausing space to rest, furniture to sit, a place for 'convenience facilities' and various economic (places for commercial activities such as shops etc. and service sector facilities such as banks, post offices etc.), social (places for health, education, administration etc. and cultural facilities) and political activities. Furthermore they create diversity within the public spaces provided throughout the city (Akkar Ercan, 2007, p.116; Gül, 1993, p.31).

2.2.2.2 ECOLOGICAL ROLES

Squares also have ecological roles. With vegetation they provide, inside or around the squares, they make contribution to the creation of a healthy environment (Thompson, 1998, cited in Akkar Ercan, 2007, p.116).

2.2.2.3 PSYCHOLOGICAL ROLES

Together with the ecological roles, squares contribute to the mental health and wellbeing of the people by their psychological roles. Some research shows that increasing health problems like obesity or heart disease are 'resulting from more sedentary lifestyles' (National Heart Forum et al. 2007, Ward Thompson and Travlou, 2007, cited in Shaftoe, 2008, p.12).

Moreover squares assure social communication and greenery which are indispensable elements for psychological and mental health of human beings since they provide a relief, relaxation and distress (Carr et al. 1992, cited in Akkar Ercan, 2007, p.117) . As Shaftoe (2008, p.12) points out, "this is presumably why people go mad when held in solitary confinement and why this is used as the cruelest form of punishment". Plazas provide convenient places for outdoor activities and social interactions and thus contribute to the psychological, mental health and wellbeing of people.

2.2.2.4 SOCIAL ROLES

Squares, as places serving mainly for the social interaction of people, have vital social roles. Being open to everyone, squares play a significant role to 'learn coexistence' and encounter with a number of people of different age groups, gender, origins and social status (Tavakolian, 1990, p.11; Akkar Ercan, 2007, p.117). This is the process of 'social learning' provided by plazas. They are the places where 'people with different norms, behaviours and cultures' come together and learn about their community (Shaftoe, 2008, p.12-13). In this respect, the interaction and communication between distinct groups of a society contribute to the development of 'social coherence', 'community life' and thus a 'sense of community' (Akkar Ercan, 2007, p.117; Trancik, 1986, p.65).

Additionally, a square can maintain 'individual's identity', regarding the sense of belonging to the place (Tavakolian, 1990, p.12-13). By providing such a connection between the place and the self in relation to others can create a sense of identification as emphasized by Lynch (1960, p.4) with "perceptual identity".

2.2.2.5 POLITICAL ROLES

A square being a 'public' space, incorporates also political roles. It constitutes an effective medium for 'political action' (Tavakolian, 1990, p.16). Plazas, as gathering spaces available/accessible for everyone and belonging to 'public', are locations of 'democracy' (Shaftoe, 2008, p.15; Akkar Ercan, 2007, p.117). They provide convenient places for 'political participation' and 'public discussions' in order to voice both 'solidarity and dissent' (Shaftoe, 2008, p.15; Akkar Ercan, 2007, p.118; Tavakolian, 1990, p.16). At the same time, they provide such a ground for political demonstrations, as Shaftoe (2008, p.15) states, the "demonstrations, pamphleteering and soapbox orations [are] so important for grassroots democracy". In short, squares provide places for political representation. They allow individuals 'to act freely, represent themselves and interact freely with others' (Akkar Ercan, 2007, p.118).

2.2.2.6 ECONOMIC ROLES

Economic roles are the most significant roles of a square since the Greek agora. Squares have been primary locations of commerce and economic activities (Whyte, 2009; Gehl, 1987, Akkar Ercan, 2007). There is such a strong bond between squares and commercial facilities. Although specific locations in towns are provided for commercial activities to take place, this bond remained the same since the squares are major people attractors and generating 'financial benefits' (Akkar Ercan, 2007, p.118; Shaftoe, 2008, p.14).

Additionally, squares, provided that 'in good conditions', increase the 'economic value' of the surrounding lands and properties and consequently are 'good for business' (Shaftoe, 2008, p.14; Akkar Ercan, 2007, p.118).

2.2.2.7 SYMBOLIC ROLES

Symbolic roles associated with squares are common throughout the history. The symbolic meaning dedicated to a place is the most significant element for its perception (Moughtin, 2003, p.88). The concept of identity in this respect is directly related with symbolic roles of a plaza.

According to Lynch (1960, p.8) identity represents a particularity of an 'object' in the whole context, 'with the meaning of individuality or oneness'. The awareness of people about their surrounding environments are strongly related with the architectural and urban forms and the meanings they attribute to them. Therefore squares can give identity to the places, with their particularity as a form of urban public space, where they are located (Akkar Ercan, 2007, p.118; Moughtin, 2003, p.88). For instance, Piazza San Marco in Venice, the Spanish Steps in Rome or the Trafalgar Square in London are regarded as the 'public images' of their cities (Akkar Ercan, 2007, p.118).

Squares furthermore can become distinct places for 'a group of people or a society' within which, there exists such a collective "cultural, historical, religious or other social and political values for them" (Akkar Ercan, 2007, p.118-119). Symbolic roles of a square in this context, contribute to the 'continuity of a group or society' and enhance the ties between the members (Akkar Ercan, 2007, p.119).

2.2.2.8 AESTHETIC ROLES

As primarily emphasized by Camillo Sitte (1965) in his seminal book, City Planning According to Artistic Principles, aesthetic concerns are crucial for a beautiful plaza and town. Therefore, aesthetic roles of squares are significant for beautifying towns and cities.

Aesthetic roles of squares, together with symbolic roles, address to the people's senses and feelings. They affect 'minds and senses' of people, and lead to a positive or negative influence on them (Shaftoe, 2008, p.56). Thomsen (1998, p.108) points out that, "Architecture without sense appeal makes people, moody, grumpy, at first emotionally unsatisfied and then physically ill". Kaplan and Kaplan (1989, p.10) also emphasizes the significance of aesthetic roles by seeing them as a 'guide to human behavior that is both ancient and far-reaching".

Aesthetic elements are mainly visual ones. 'Visual impression' of such a space is the most effective 'sensory experience' of individuals (Shaftoe, 2008, p.57; Landry, 2006, p.50). Yet, on the other hand, squares also address to the senses other than seeing, namely hearing (covering traffic noise), feeling of warm and cold (shade and sun), smelling (urban pollutants) and touching (textural qualities, surfacing types and built features) (Shaftoe, 2008, p.57-58). In other words, aesthetic experience of a place is 'a combination of several senses' (Shaftoe, 2008, p.63).

Consequently, there are a variety of functions of squares embedded within different roles as; physical, ecological, psychological, social, political, economic, symbolic and aesthetic. And eventually, squares become significant parts of cities and societies.

Marcus and Francis (1998, p.13) on the other hand, discuss in their book, People Places, whether there is a role for the urban plaza or not, and criticize the limited use that contemporary squares provide as follows:

> *"The modern plaza is not the piazza of days gone by, yet it does have some relevant contextual and functional parallels. It is farfetched to consider the corporate skyscraper the modern equivalent of the medieval cathedral, each symbolizing, for its era, the seat of power? The public outdoor space next to each is, or was, crowded at certain times of the day because that particular building function attracted people. In each case, the primary people generator (cathedral or corporate office tower) has, or had, a vested interest in the appearance of the space and in how it is used. What is undoubtedly different is that the contemporary office plaza has a very limited range of uses compared with those of the medieval piazza."*

However Marcus and Francis (1998) also point out the growing interest on public spaces, and especially on plazas. Many scholars (Whyte, 1974; Gehl, 1987; Marcus & Francis, 1998) indicate that there is an increase in the use of squares and 'with each new plaza' produced, 'the clientele grows' (Marcus & Francis, 1998, p.13). Within this context, next part will focus on this rising interest on urban squares.

2.2.3 INCREASING CONCERNS ON URBAN SQUARES

This section of the study concentrates on the recent interest on urban squares and presents the reasons behind it.

Squares as a form of urban public space, which are the significant components of cities, have been subject to 'broad concern' for the last three decades (Tibbalds, 2001, p.1; Akkar Ercan, 2007, p.119). Regarding the transfer of such social functions and uses to private realms that are traditionally taking place in public spaces, the growth of 'individual mobility' – especially by cars that are easing 'private control' over public spaces and the 'privatization impulse' creating the 'shopping mall' movement have led the decline of public spaces including squares (Carmona et al., 2003, p.110). It is in response to these conflicts, that such an interest on public spaces have been developed. Many scholars (Akkar Ercan, 2007; Tibbalds, 1992; Carr et al, 1992; Madanipour, 1999) point out this recent concern and explain the causes behind it.

Akkar Ercan (2007) summarizes the recent increasing interest on public spaces, including urban squares, in reference to a variety of reasons ranging from new urbanism approaches, demand on outdoor facilities, museumization affects, social polarization and privatization trend, and in a general sense, globalization.

Regarding the new urbanism approaches, referring Tibbalds (2001), Akkar Ercan (2007; p.119) stresses the recently emerged approaches in urbanism that are against the Modernist approaches in 'architecture and planning', focusing on the 'traditional features' of towns and cities. Tibbalds (2001, p.12) at this point, indicates that "*the concern is once again for the scale of people walking, for attractive, intricate places and for complexity of uses and activities. The object has now become the public realm*".

Another reason, as the 'demand on outdoor facilities' is related to the growing interest on such activities as *outdoor eating*, *walking*, *cycling*, *street vending* and *street performing*, together with the *sportive 'young, middle-class' urbanites'* call for the provision of public spaces that are easily accessible from their houses or works (Francis, 1987; Carr et al, 1992 cited in Akkar Ercan, 2007, 119). Akkar Ercan (2007, p.120) adds on that the demands of particular groups, such as tourists or service sector employees, on 'new' and 'safe' squares and public spaces, where they can shop, socialize and interact with other people are likewise reasons of the growing interest.

Museumization is the term introduced by Perla Korosec-Serfaty; for the 'historically preserving and socially altering' older public spaces (such as plazas and squares) he called 'museumization of public landscapes' (Francis, 1987, p.56). Similarly 'museumization of the culture' is counted as one of the reasons for the interest on public spaces regarding especially the tourists who demand a variety of public spaces in cities including squares, plazas, museums, galleries etc. (Burgers 2000, cited in Akkar Ercan, 2007, p.120).

On the other hand, public spaces are becoming subject of an increasing concern due to their positions as tools for facing the socio-spatial fragmentation of cities providing 'forms of togetherness' (Madanipour, 1999, p.144), with respect to the "social and spatial segregation among the middle and working classes", "racial and social segregation in North American and European cities", together with the processes of "deindustrialization", and "transition to a service economy" (Akkar Ercan, 2007; p.120).

Privatization trend, "from shopping malls to gated neighbourhoods, and protected walkways", have been one of the reasons behind the public space considerations (Madanipour, 1999, p.148). According to Madanipour (1999, p.148) against this privatization trend, "the development of truly public spaces is expected to promote a degree of tolerance and social cohesion" in order to diminish the private interest of the particular segments in the city which creates imbalance and social polarization.

Besides all these previously mentioned reasons for the recent interest on public spaces, the effect of 'globalization' in cities throughout the world have also motivated the rise of concerns on public space (Akkar Ercan, 2007, p.120). Carmona et al (2003, p.101) note that globalization provides a homogeneous and standardized spatial context in global scale; however, at the same time it promotes distinctiveness in local scale. In this respect, as far as these local differences are appealing for global marketing, globalization encourages the provision of such public spaces. In other words, public spaces have been promoted since they are seen as a marketing tool for cities and localities.

Similarly Akkar Ercan (2007, p.120-121) relates globalization to the emergence of "world cities" with "spectacular, astonishing, glorious, fantasy-world" landscapes (which are generally "self-referential"). Furthermore, these new landscapes have noticeable qualities such as "good design, cleverly managed and maintained visual décor and ambiance which create strong visual identity, and themes which are well-articulated with space".

On the other hand, regarding the global marketing strategies, the awareness of investors and developers about the significance of "high quality and lively" public spaces and squares for their increasing economic benefits drew attention towards public spaces (Akkar Ercan, 2007, p.121). Public spaces come forward as the significant elements of cities representing the cities' "positive image" and developing their 'attractiveness' for the 'potential investors'; as well as constituting a "symbol" for local authorities regarding 'their commitment and effectiveness in urban regeneration' and crime prevention (by providing such a space for socializing and entertainment) (Madanipour, 1999, p.147).

There is a recent interest on public spaces, and also plazas and squares, because of a variety of reasons. However, making 'better public spaces' is directly associated with good design. Furthermore, Akkar Ercan (2007, p.131) emphasizes that "real public spaces can only emerge if they are planned, designed, developed and used through the involvement of as many and variety of groups as possible". In this respect, next section will focus on the design criteria needed for creating successful plazas.

2.2.4 'GOOD' URBAN SQUARE DESIGN CRITERIA

This section of the study focuses on the design criteria obtained from previous research for the production of successful urban squares, considering both its 'design' aspects and 'users' aspects. The data gathered in this section constitute the basis of the analyses and evaluations in the following chapters within the study.

There has been a recent interest on public spaces and especially, on creating 'better' ones. The question of 'what constitutes such a 'better' space?' has various answers, however it is quite difficult to know and organize the 'right conditions' for the creation of a successful place.

There a number of studies dealing with the success of urban places, some have a physical approach (Cullen, 1961), and some others have a psychological approach (Alexander, 1979; Lynch, 1960). And on the other hand, there are studies that provides an approach which is a combination of both physical and psychological approaches (Jacobs, 1960; Whyte ,1980; Gehl, 1989).

Within an approach that covers both physical and psychological aspects, Punter (1991) and Montgomery (1998) emphasize '*form'* and 'activity', besides '*image'* and '*meaning'* (those mainly dealing with people, their perceptions, values and meanings) in terms of place making.

Montgomery (1998, p.100) introduces the concept of *form* that should 'fit' to 'activity' and create 'a positive image' for a 'strong sense of place'. *Activity* is related to the concepts of *vitality* and *diversity*, where vitally signifies a major role for the success of a place by referring to the number of people in and around the place during different time periods engaged into various facilities or cultural events etc; and diversity acts as a generator of vitally through management of providing 'diversity of primary land uses and activities' (Montgomery, 1998, p.96). In this regard, for more vital and lively places, the golden rule is to mix the activities (economic, social and cultural) within adequate population densities. *Image* is a combination of 'what a place is actually like' (signifying the identity of a place*: its physical form and setting*) and 'how a place is perceived' (Montgomery, 1998, p.98). Apart from these, image is directly related with the 'activity' provided in the place and its 'built form' as well.

On the other hand, Carmona et al. (2003) see urban space design as a multi-dimensional concept and introduce such following dimensions: morphological, perceptual, social, visual, functional and temporal, which could be implemented for the creation of successful public spaces including urban squares as well.

Morphological dimension deals with the shape and form of the environment and identifies the major patterns in terms of blocks, streets, squares and buildings (which physically and socially defines the forms of these spaces). Perceptual dimension deals with the meanings attributed to the built environment by people and introduces the concept of sense of place. In terms of social dimension, relationship between society and space is considered (how people use the public space). Visual dimension is about the aesthetic concerns and technical information. Functional dimension covers the functions provided for the users' needs. Temporal dimension deals with the 'time' concept of the spaces (such as different activities taking place at a space, in different times; different policies, projects implemented within various time cycles etc).

Success of the public spaces are in a direct relation with the existence of public (people); and thus, in order to sustain the success, public space should provide 'what people want in an attractive and safe environment' (Carmona et al, 2003, p.100). 'The Project for

Public Space' (1999, cited in Carmona et al, 2003, p.100) defines successful places according to 'comfort and image', 'access and linkage', 'uses and activity' and 'sociability' of the places.

The attributes of 'the most sociable spaces' (which are more physical ones) introduced by Whyte (1988, cited in Carmona et al, 2003, p.169) are as follows:

> *"-A good location, preferably on a busy route and both physically and visually accessible.*
> *-Streets being part of the social space – fencing off a space from the street isolated it and reduced its use.*
> *-Being level or almost level with the pavement (spaces significantly above or below this were less used).*
> *-Places to sit – both integral (e.g. steps, low walls); and explicit (e.g. benches, seats etc.).*
> *-Moveable seats, enabling choice, and the communication of character and personality.*
> **Less important factors included sun penetration, the aesthetics of space (what mattered was how people used it), and the shape and size of spaces."*

In this respect, considering the concepts and attributes introduced in literature within the context of various studies on successful places; such elements, making a better space and in the end a successful urban square, as activity, diversity, image, form, enclosure, density, vitality, safety, comfort etc. can be categorized due to the geographical, physical, behavioral-psychological and managerial aspects regarding also the classification made by Shaftoe (2008).

Geographical aspect responding the question of 'where?', deals with the location of the square, its accessibility and the catchment area.

Physical aspect covers first of all, the form of the square, then its size, and visual complexity (visual and aesthetic elements, from seating, landscaping to subspaces, shelter and protection – from sun and cold – , lighting, human scale etc.).

Behavioral and psychological aspects deal with the users' needs that are to be satisfied in a public space, as in case of this study: the square. It includes, comfort, safety and security, relaxation, passive and active engagement, discovery and joy.

Managerial aspects include strategies and programs in order to provide and sustain the success of the square focusing mainly on diversification of uses and activities embedded within the square for every segment of the community, with respect to the diversity of users from different cultures, different genders and age groups; and deals with eating and drinking opportunities, vending, and maintenance issues.

2.2.4.1 GEOGRAPHICAL ASPECTS

This part introduces the attributes as location, accessibility and catchment area constituting the geographical aspect of a good urban square.

2.2.4.1.1 Location

Location is one of the major factors that direct people to use such a specific public place. Whyte (2009, p.108) states about public spaces (*squares/plazas*) that 'the space should be in the heart of the downtown'. Public spaces are functioning at the optimum level in 'central' locations (Shaftoe, 2008, p.139). Mixed-use urban environments providing various uses and facilities (such as offices, shops, residential areas, hotels, retail stores, cafes, restaurants etc.) for a variety of people (different genders, different age groups etc.) within a close distance to or on a busy route are most convenient places for public spaces to locate and stay lively during day and night and at weekends (Shaftoe, 2008; Tibbalds, 2001; Marcus & Francis, 1998).

2.2.4.1.2 Accessibility

Accessibility is the another major point contributing to the success of a public space. Location of a square directly influences the accessibility regarding whether it is located within a close distance to main pedestrian and vehicular traffic routes and transportation nodes (referring to the accessibility of the square by 'all means of transport' (vehicular), but not being 'dominated' by them) (Shaftoe, 2008, p.140). Whyte (2009, p.129) introduces a visual accessibility concept apart from physical accessibility for the catchment of people. In other words, the visual access (visibility) of an urban square is important for the society's utilization from the square (Marcus & Francis, 1998, p.32).

2.2.4.1.3 Catchment Area/ Potential Service Area

A catchment area (or the potential service area) signifies the area which covers the potential users of a public space are coming from (Childs, 2004, p.127; Marcus & Francis, 1998, p.32). According to various studies, an average length that people would walk to a square is about 275 meters long (*a four-minute walk*) (Lieberman, 1984 cited in both Childs, 2004, p.128; Marcus & Francis, 1998, p.32); and the 'comfortable walking distance' is about 600 meters (Calthorpe, 1993, p.56 cited in Childs, 2004, p.128). Childs (2004, p.128) reviews that users arriving to the square with 5 to 10-minute bicycle trips would be able to come from 1200 meters to 3200 meters distances; and the users arriving with 5 to 10-minute automobile trips would be able to access the square from 800 meters to 2400 meters long distances (Table 2.1).

Table 2.1: Potential service area guidelines, Source: adapted from Childs, 2004, p.128.

CATCHMENT TROUGH	NOTES	LENGTH	REFERENCE
WALKING TRIP	-average length that people would walk to a plaza	275m	Lieberman, 1984
	-comfortable walking distance	600m	Calthorpe, 1993
BICYCLE TRIP	-5 minutes bike ride	1200m	Childs, 2004
	-10 minutes bike ride	3200m	Childs, 2004
AUTOMOBILE TRIP	-5 minutes automobile trip	800m	Childs, 2004
	-10 minutes automobile trip	2400m	Childs, 2004

As previously mentioned, visual accessibility of squares are significant for the potential service areas; high visual accessibilities might cause an increase in the service areas (that people might prefer to walk much longer distances to reach that square); less visual accessibilities on the contrary, would come up with a decrease in the service areas (Marcus & Francis, 1998, p.32). Childs (2004, p.127) states that having such an information about catchment/service areas (signifying the potential users) might help to get the 'desired facilities in or near the place' and 'formal characteristics'.

2.2.4.2 PHYSICAL ASPECTS

This part introduces the attributes related to physical aspects of an urban square as form, size and visual complexity.

2.2.4.2.1 Form of a Square

The very first issue about the physical existence of a particular space is its shape, morphology or form. Visual and kinaesthetic (*involving awareness of movement of all parts of the body*) experiences generates the individual's perception of the form of the built environment (Carmona et al., 2003, p.130).

Built environment is experienced and perceived as a 'whole' rather than with its 'singular parts', yet however it is the singular attributes that constitute the whole structure; in this respect, Gestalt psychologists states that "order and coherence comes from the grouping and recognition of patterns, and to make environments more coherent visually we use principles of organisation or grouping to create 'good' form from the parts" (Carmona et al., 2003, p.131). Principles of organization and coherence are the *similarity*, *proximity*, *common ground* and *common enclosure*, *orientation*, *closure* and *continuity* that are all illustrated in the following figure (Figure 2.5).

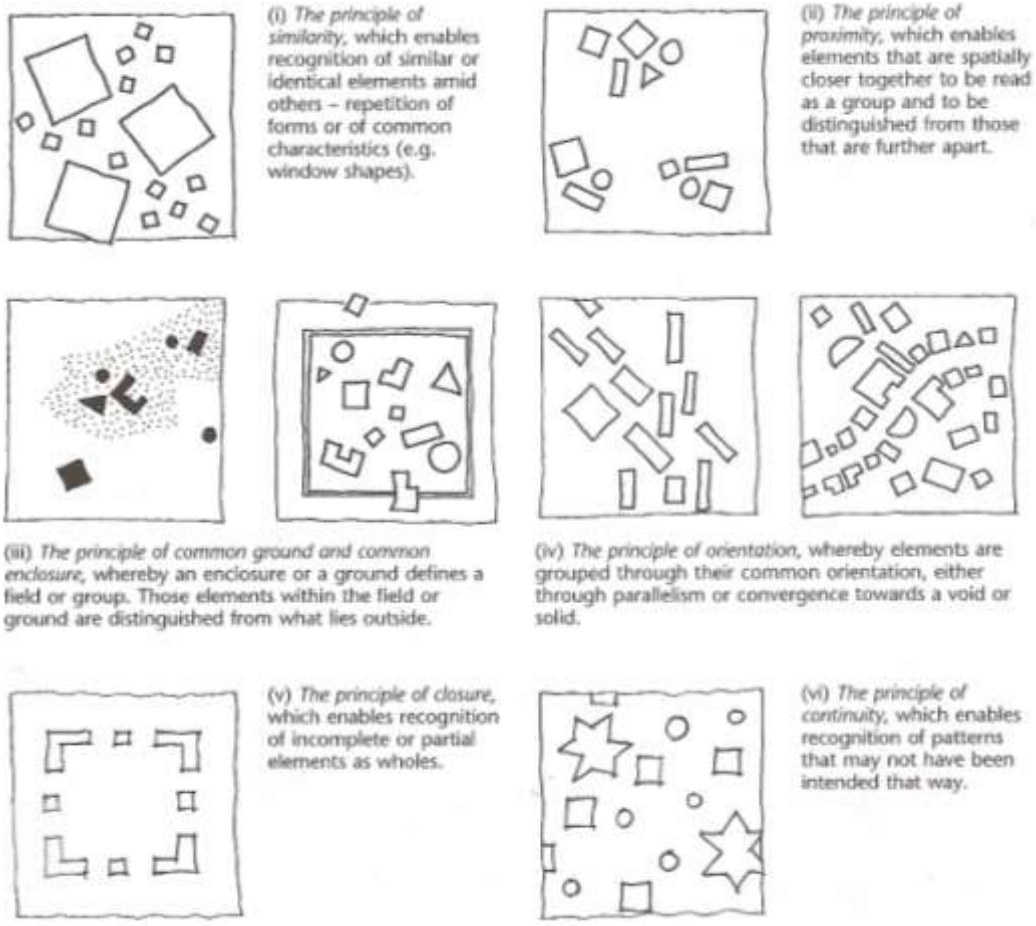


Figure 2.5: Principles of organization and coherence, Source: Carmona et al., 2003, p.132.

Another significant point about the form of a plaza made by Camillo Sitte (1965) in his seminal work, City Planning According to Artistic Principles, is 'the sense of enclosure'; where Sitte states that 'the main requirement for a plaza, as for a room, is the enclosed character of its space' (Sitte, 1965, p.32).

The Figure 2.6 illustrates the formation of enclosure. The surrounding forms define the central form. Although there are differences between a two-dimensional perception (*from above*) and a three-dimensional perception (*through walking in*) of a plaza, 'if the enclosing forms are shaped in the mutual agreement that a volume exists, then we sense the shape of the volume' (Childs, 2004, p.120).

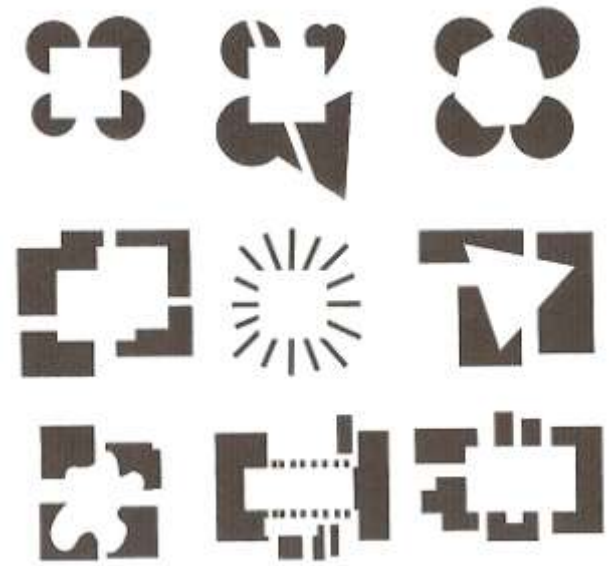


Figure 2.6: Formation of enclosure, Source: Childs, 2004, p.120.

For the perception of an 'implied figure', corners of the surrounding elements, buildings are *critical* as illustrated in Figure 2.7 (Childs, 2004, p.120). Second group with elements having 'sharp corners' creates an image of a larger circle and square, however the first group fails to create such an image.

Figure 2.7: Corners' impact on creating form, Source: Childs, 2004, p.120.

Carmona et al. (2003, p.139) refers to Booth's (1983) study on the quality of enclosure, where Booth identifies principles of enclosure through a number of diagrams (Figure 2.8). According to Booth's (1983) study,

(a) the singular building is an individual entity taking place in the 'space' rather than defining a space;

(b) buildings situated 'in a long row' without having an interaction is the 'weakest definition of space';

(c) buildings situated 'at right angles' to each other define a space, but a 'monotonous' space would be created if this is 'overused';

(d) relationship between buildings can be enhanced by using imaginary lines that 'align' buildings facing one another;

(e) buildings can be grouped around a 'central space' creating an 'enclosure' with open corners;

(f) a 'stronger sense of enclosure' can be created by using a similar setting however with 'building walls turning the corners';

(g) for 'further involvement' of individuals, buildings can be organized as to create 'subspaces' inducing a 'sense of mystery or intrigue';

(h) however, the environment created in the previous diagram might result with a 'disjointed series of separate spaces';

(i) final point is about the 'windmill or whirling square' (as Sitte's (1965) 'turbine plan'), in which the major point for the enclosure is the 'design of openings into the space' in this respect, streets entering each plaza are organized obliquely not traversing the plaza, but encouraging people 'to walk through -rather than by- it'.

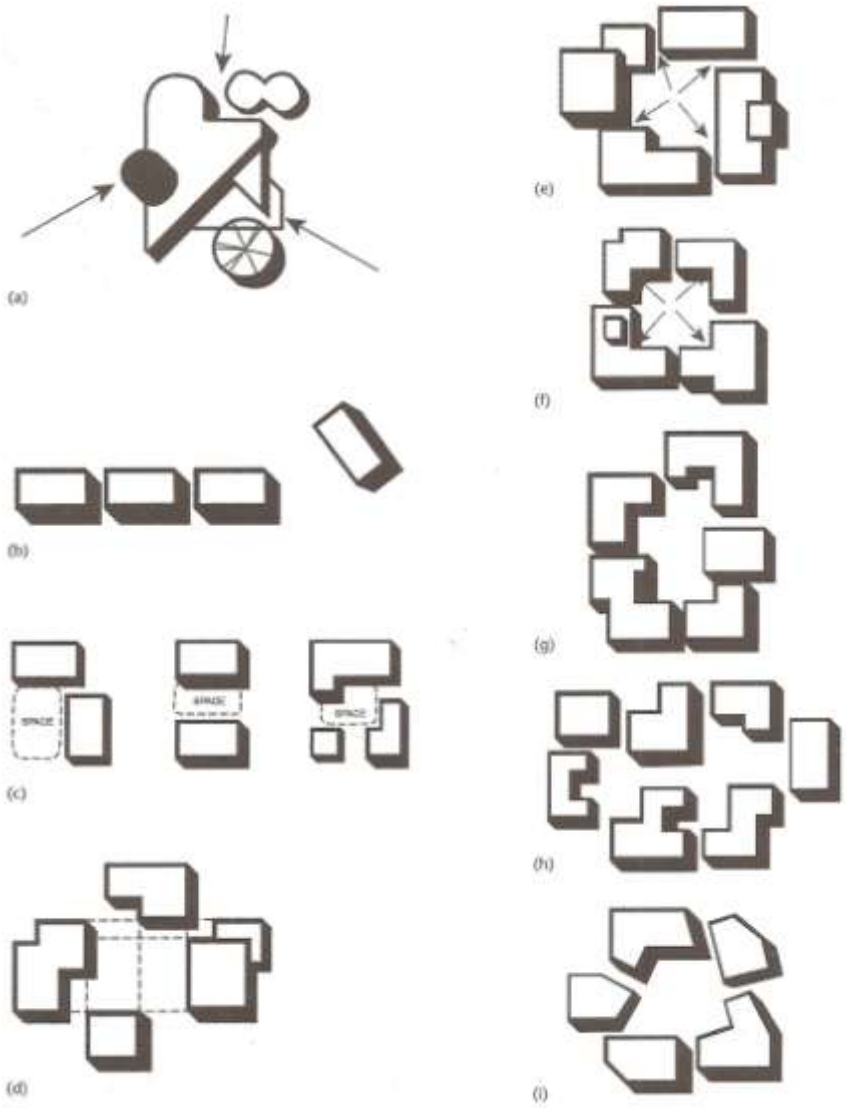


Figure 2.8: Principles of enclosure, Source: Carmona et al., 2003, p.140.

Hillier (1996 cited in Carmona et al, 2003, p.173) with a distinct perspective argues that, sense of enclosure should not necessarily be the primary concern of the 'contemporary public spaces'; according to him, the major point of users is 'integration' ('connectedness' as Hillier calls), in this respect, designers should focus on their 'movement' patterns and create 'connected systems'.

However, a degree of enclosure is needed regarding the form of a square since it 'creates a feeling of security' (Carmona et al., 2003, p.139) and according to some scholars

people prefer a 'defined openness' ('open *but* bounded spaces') (Nasar, 1998, p.68 cited in Carmona et al., 2003, p.141).

Other than studies about gestalt psychology and sense of enclosure, Rob Krier (1979) made a morphological study with respect to the geometric patterns and developed a typology of urban squares.

According to Krier's study there are three major shapes (*squares*, *circles* or *triangles*) that are to be modified through *angling*, *segmentation*, *addition*, *merging*, *overlapping* and *distortion*; resulting with regular or irregular forms which might be *open* (to the environment) or *closed* (by walls, arcades, colonnades from the streets around) (Figure 2.9). The number of intersecting streets and position of the entry points as well designates the 'closed' or 'open' character of the square. The shapes can also be modulated by a variety of sections and in various elevations which in turn influences the quality of the space.

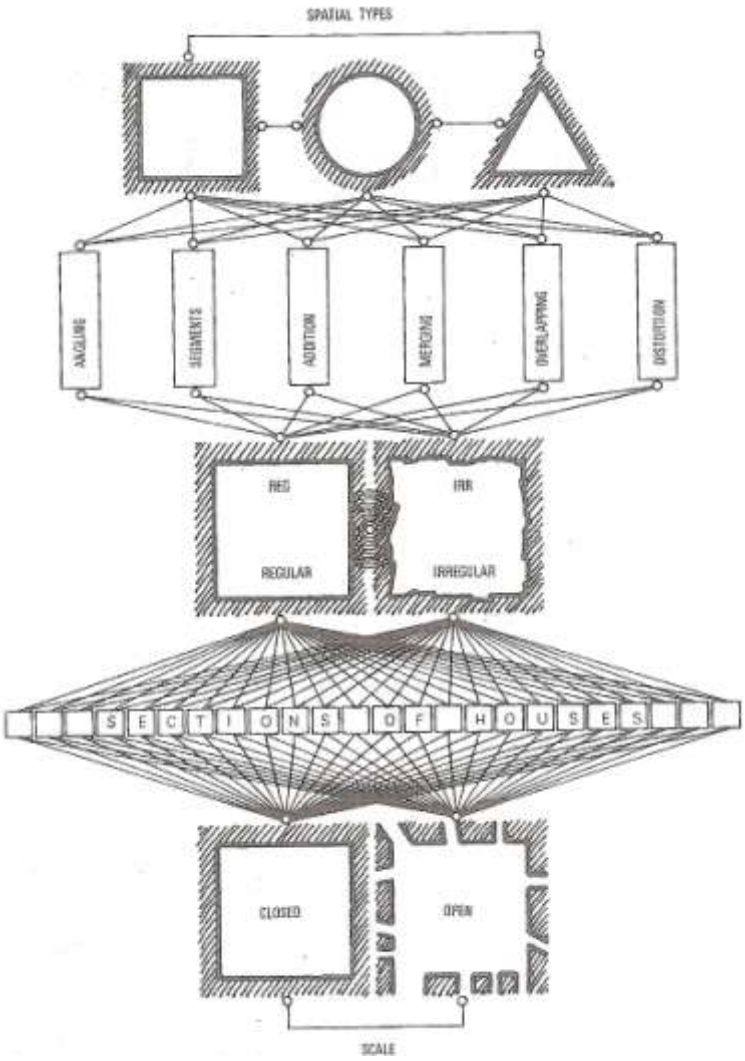


Figure 2.9: Rob Krier's typology of urban squares, Source: Krier, 1979, p.29.

Public spaces are mainly called as 'squares' regarding their shapes, however, there are many spaces within various shapes. As Shaftoe (2008, p.75) argues, 'curves and bends in public spaces offer intrigue and prospect of something interesting round the corner'. Similarly a number of scholars see 'straight lines' and 'rectangular forms' as unnatural and 'alien to human beings' (Christopher Alexander; Hundertwasser cited in Shaftoe, 2008, p.75). Although there is a great variety of shapes, form is a significant element for the physical perception of a square/plaza.

2.2.4.2.2 Size of a Square

Size of a plaza depends on the *context* and the *location* that the square takes place. The dimensions of plazas represent the character of the space whether it is friendly, cozy, intimate, political, unfriendly etc. (Shaftoe, 2008, p.73). Shaftoe (2008, p.73) argues that 'very large spaces' may feel unfriendly, and 'too small spaces' on the other side may feel *claustrophobic*. In this respect, there should be an optimum dimension for a successful urban square.

Many scholars have made recommendations about the ideal dimensions of a plaza (Lynch, 1971; Alexander, 1977; Gehl, 1987). Kevin Lynch suggests dimensions from 12 meters (representing an *intimate scale*) to 24 meters (*a pleasant human scale*) along each side, and goes up to 100 meters for large plazas (like the dimensions of *successful historical enclosed squares* which is not over about 100 meters; 'medieval squares had average dimensions of 57x140 meters'); Jan Gehl (1987) introduces similar maximum dimensions of 70 to 100 meters and puts forward the maximum distance to understand the facial expressions as about 25 meters; Christopher Alexander points out that the dimension of a small plaza should be 22 meters across at most (Marcus & Francis, 1998, p.25; Shaftoe, 2008, p.74; Childs, 2004, p.124). On the other hand, Whyte (2009, p.110) asserts that, the size of a plaza does not represent a significant relation with the level of its use; however, very large public spaces may be problematic. Table 2.2 summarizes the mentioned recommended dimensions for a good urban square.

Table 2.2: Recommended dimension for an urban square

SIZE OF A SQUARE	NOTES	DIMENSIONS	REFERENCES
Small public spaces: Town squares/plazas	-Pleasant human scale	12-24m 22m	Lynch , 1971 Alexander, 1977
Larger public spaces: spectator squares/plazas (for larger groups)	-Limit of successful historical enclosed squares -Maximum distance for following events	100m 70-100m	Lynch , 1971 Gehl , 1987
*	-Maximum distance for seeing facial expressions	25m	Gehl , 1987

Although there are many other factors that affect the perception of the space and its size (such as light, the height of the enclosing 'walls', planting, slope of the floor etc.), these

dimensions can be considered as guidelines during the design process of the well-proportioned squares.

2.2.4.2.3 Visual Complexity of a Square: Visual and Aesthetic Elements

According to many studies on visual complexity, visual and aesthetic elements (such as seating and landscape elements) are significant components of a successful plaza in physical terms (Marcus & Francis, 1998, p.25). Alexander et al. (1977) point out 'center' and 'edge' as the major design foci in a public space noting that 'without a middle' a public space 'is quite likely to stay empty' (1977, p.606); and 'the life of a public square forms naturally around its edge. If the edge fails, then the space never becomes 'lively' (1977, p.600). Visual and aesthetic elements taking place in centre and edge of a square are as follows, seating; hard and soft landscaping such as paving, planting (natural elements); street furniture; shelter and protection (microclimate); subspaces; lighting, human scale and public art.

2.2.4.2.3.1 SEATING

The most significant visual element that is to be provided in an urban square is the sitting places. William Whyte's (2009, p.110) pioneer study points out that the major factor designating the success of a square is not the location or size but the amount of sittable space. According to Whyte (2009, p.112) 'sitting space is most certainly prerequisite. Whatever the attractions of a space, it cannot induce people to come and sit if there is no place to sit'.

As far as squares, plazas are gathering, pausing and resting places (apart from serving for the activities such as walking through), a variety of sitting, leaning and resting opportunities should be provided (Marcus & Francis, 1998, p.39). Whyte (2009, p.110) states that 'people tend to sit most where there are places to sit', however there is a diversity between users of a square in terms of where they would like to sit (such as on the edge looking out, on the edge looking in, around square edges, on islands, or in secluded alcoves) (Marcus & Francis, 1998, p.40). The right type of seating should be placed in the right place according to those varying demands (in terms of both location and form of seating) (Figure 2.10).

Figure 2.10: Variety of the sitting preferences, Source: adapted from Marcus & Francis, 1998, p.40.

People generally prefer to sit 'not too close to traffic and sidewalks and not too close to building entries' and mainly select the 'edge' of the squares at first (Marcus & Francis, 1998, p.39). Pointing out the feeling of security that enclosure provides, Alexander et al (1987, p.521) similarly state that 'when a person looks for a place to sit down outdoors, he rarely chooses to sit exposed in the middle of an open space – he usually looks for a tree to put his back against; a hallow in the ground, a natural cleft which will partly enclose and shelter him'.

Places to sit: Primary and secondary sitting places

Primary sitting places are provided formally in the squares like benches and chairs. Secondary sitting places on the other hand, are provided *informally* in term of steps, ledges, building walls, planter-bed edges, mounds of grass etc. Such secondary sitting places contribute to the presentation of a square by providing a balance in its empty look when there is a few people in the place; instead of the look which is 'intimidating and unwelcoming' when the plaza is only composed of a row of benches (Marcus & Francis, 1998, p.40). Secondary sitting places should constitute the 'half of the seats in a plaza' and should be 40-75 centimeters in height (Marcus & Francis, 1998, p.40; Childs, 2004, p.157).

Childs (2004, p.158) reviews Whyte's (1988) recommendations about seating as follows:

> *"1.there be at least 30 centimeters of secondary seating per 3 square meters of plaza*

2.the seats be between 30 centimeters and 90 centimeters above grade with most of them about 45 centimeters high
3.they are at least 45 centimeters deep for single-loaded seats and 90 centimeters wide for double-sided seating."

Style of the sitting places is another point to be mentioned. There are various styles serving for the different settings of plazas. Most common sitting places are benches, steps and ledges and table seating, however 'there is no one size fits all' (Shaftoe, 2008, p.94).

Benches may be designed both backed (with a back-side protection) or backless. The ones with protection in the back side may be convenient for the elderly (Shaftoe, 2008, p.94), and on the other hand, the backless ones may contribute to the generation of social interactions through social groupings and sight lines (Marcus & Francis, 1998, p.41).

Table-sitting places are also significant since they provide suitable and comfortable spaces for outdoor eating and drinking facilities and the ones with umbrellas or roof provide shelter for people from sun and rain (Marcus & Francis, 1998, p.42-43). They can provide *surfaces* for other facilities as well, for instance there may be tables with 'built-in game boards' which can attract users (Child, 2004, p.157).

Steps and ledges are the 'simplest' places to sit but the 'best' places that can offer many sitting options (Shaftoe, 2008, p. 94; Marcus & Francis, 1998, p.41). As Childs (2004, p.157) argues these places 'suggest a different set of social possibilities than do chairs and tables'. Other than steps, the corners of pools and planter-bed edges are used for sitting as well. Consequently, 'the more articulated the edges and ledges are, the more they will probably be used' (Marcus & Francis, 1998, p.41).

The materials of the provided sitting places should also be responsive to the environmental conditions. 'Wood' is a *soft*, *warm* and *thermally appropriate* and *smooth* material; yet metal and such other materials are *harder* and *uncomfortable* (Marcus & Francis, 1998, p.44; Childs, 2004, p.158). However, concrete, tile and stone may also be used as a sitting place material, because it 'can provide a warm seat on a cool evening, or a cool seat on a warm morning' (Childs, 2004, p.158).

Orientation is a crucial point as well as the material and the type of seating which is about both the 'people watching what while sitting' (the passerby, water, foliage, distant

views, nearby programs and performances etc.) and organization according to 'sun and shade' (not only regarding the season, but also individuals' personal conditions) (Marcus & Francis, 1998, p.43; Shaftoe, 2008, p.94). In this respect, Shaftoe (2008, p.94) states that 'in northern climates they [sitting places] should be south-facing to catch the sun; in southern climates the converse is true. They should also offer some kind of spectacle – usually a street scene – as steps in particular make an ideal grandstand'.

'Moveable seating' is also recommended by Whyte (2009, p.123) as an alternative but exciting opportunity which make users free in terms of creating sitting places in various positions as they wish. These sitting places are generally supposed to take place in *secured* areas, yet there are a number of instances where moveable seats are provided and have successfully contributed to the use of plazas (Shaftoe, 2008, p.102).

Shaftoe (2008, p.96) also points out the notion of observation as an enjoyable activity (signifying that users would like to *observe other people*), thereby Shaftoe emphasizes 'vantage points' being significant components in the whole setting of plazas and sitting places should be designed considering this kind of a use.

Leaning is a type of a pedestrian activity which can also take place in a square that people would prefer when they do not want to sit aside but they would like to observe the 'scene' within a standing position (Shaftoe, 2008, p.104; Childs, 2004, p.158). Squares should provide spaces for leaning such as a piece of public art, plinth, bollards, parking meters, lampposts or suitable walls (Shaftoe, 2008, p. 104; Childs, 2004, p. 158).

To conclude, seating is probably the most significant component of a successful square; and in this respect should be provided within various forms, styles and materials. A variety of seating places can be provided in different subspaces of a square, provision of moveable seating opportunities may attract users and 'child-size tables and chairs' may draw on children's attention (Childs,2004, p.157).

2.2.4.2.3.2 LANDSCAPING

Landscaping is a significant component of a successful square within its physical existence which make contributions in ecological and psychological terms as well. '*Floorscape'* as Carmona et al. (2003, p.159) call, is composed of *hard pavement* and *soft landscaped areas*. In this study landscape elements will be studied under the headings of 'hard landscaping' and 'soft landscaping'.

Hard Landscaping

The character of a hard landscape is related with the material used for surfacing and cladding such as brick, stone, marble, concrete etc. Creating a floor pattern have 'utilitarian considerations' as well as 'aesthetic concerns' (Carmona et al., 2003, p.159). The fundamental 'utility of pavement is to provide good traffic spaces' regarding a 'hard, dry, non-slip surface' which is aesthetically creating a *comfortable* and *beautiful* environment for walking (Childs, 2004, p.140; Carmona et al., 2003, p.159). In this respect, more durable materials should be used regarding the differing climatic conditions and the long term economic benefits (Shaftoe, 2008, p.111)

Paving has aesthetic contributions in terms of introducing 'scale' to urban spaces; for instance, 'stone paving slabs' introduce a 'human scale' and thus make the 'large, hard' spaces easier to perceive (through human proportions) and handle with (Carmona et al., 2003, p.160). Floor patterns can also affect and divert one's perception of a space's actual dimensions by using particular elements and ornamentations (Carmona et al., 2003, p.160). Within this context, paving pattern contributes to the provision of a 'sense of place', regarding the visual expression of the floor representing a sense of stopping or staying in case of squares (Childs, 2004, p.141; Carmona et al., 2003, p.160).

Carmona et al. (2008, p.160) reviews the functions of floor paving in a square as follows,

> *"-providing a sense of scale,*
> *-unifying the space by linking and relating the centre and edges,*
> *-bringing order to what might otherwise be a disparate group of buildings (by using a simple geometric paving pattern a stable center to the plaza can be provided)."*

Childs (2004, p.143) introduces another function of floor paving which is serving as a *gameboard*. It is a feature that can significantly contribute to the social life taking place in the square. Finally, paving of a square can become the symbol of the space and concurrently can aid the image and identity of the place (Childs, 2004, p.141).

Soft Landscaping

Soft landscaping is a significant element as well as hard landscaping for creating identity and image of a place. Soft landscaping covers natural elements such as plants, shrubs, trees, grass and lawns. Planting is an advantageous action regarding its contributions to

the success of a square within psychological, well-being, aesthetic and practical aspects (Shaftoe, 2008, p.112; Carmona et al., 2003, 162).

Planting and greenery served in plazas are indispensable elements for psychological and mental health of users as they provide a refreshment, relaxation, distress and joy (Shaftoe, 2008, p.111). In practical terms planting offers a 'softer' environment by covering the 'hard' building surfaces, limits the square space, introduces a human scale, aids the production of subspaces, provides a continuity and integrity within the urban fabric, creates a more convenient microclimate; and aesthetically adds a harmony and generates seasonally changing views and vistas with the variety of vegetation taking place (Shaftoe, 2008, p.112; Carmona et al., 2003, p. 162-164).

There should be a 'variety' of natural elements – such as flowers and trees providing also a 'variety of color, texture, height and degree of shade' – serving for the users in a square, in order to enhance the square's visual complexity (Marcus & Francis, 1998, p.44-45). The height of the planting should not be interrupting any user's sight line and prevent their visual access (to an activity space, passer-bys or fountain etc.) (Marcus & Francis, 1998, p.45).

As far as environment is experienced through all senses, 'color and fragrance' appear as a significant amenity provided by plants (trees, shrubs, flowers) which should take place within the setting of a square (Marcus & Francis, 1998, p.46). Another natural element which is to be existing in a square is 'grass' or a 'lawn area'. Provision of grass or lawn areas is also pointed out by Whyte (2009, p.123) as these areas offer an 'adaptable surface' for users where they can sit in numerous positions, sunbathe, have picnic, play games etc. And 'lawn users' can better observe the others in and around the square over 'slopes and hills', if such places do not exist they may be created (Marcus & Francis, 1998, p.46). In this respect, well-organized soft landscaping can make significant contributions to the use and thereby the success of an urban square.

2.2.4.2.3.3 STREET FURNITURE

Street furniture is a general term used for the furniture and the other equipment taking place in the urban space including hard landscape elements apart from paving such as lighting elements, lampposts, planter-beds, benches, bollards, litter bins, boundary walls, railings, gazebos, kiosks, fountains, monuments, statues (in a sense, 'public art' is a kind

of street furniture, yet it will be discussed further in following sections) (Carmona et al., 2003, p.161; Childs, 2004, p.161-162). Street furniture significantly aids the development of image and identity of a place, by increasing the 'quality standards and expectations' of the environment (if properly organized and provided). During the design process of a square, incorporation of street furniture should be seriously considered, yet excessive and exaggerated amounts should be eliminated noting that every furniture should fit the environment it is going to locate. In this respect, in order to enhance 'local identity' and create suitable and particular furniture for an urban square, designers may be commissioned to produce 'particular' furniture (Carmona et al., 2003, p.162).

2.2.4.2.3.4 SHELTER AND PROTECTION: MICROCLIMATE

The fundamental aim of a successful square is to assure the comfort of its users; unless squares are comfortable, they will not be preferred and used. Such climatic elements as sun, shade, temperature, rain, snow, wind, and humidity affect the user's feeling of comfort (Carmona et al., 2003, p.185; Marcus & Francis, 1998, p.32).

Microclimate, having influences on users' comfort (in terms of feeling warmth or coolness), can be designed through proper organization of streets and buildings around the square and use of landscape elements as well (Carmona et al., 2003, p.185). Public spaces should reach to the maximum level of sunlight (daylight), concurrently a shading shelter should be provided for the sun and protection from cold and wind.

Introduction of sunlight into a space makes that space more delightful and enjoyable; however the preferred amount of sun or shade varies depending on the seasons (Carmona et al., 2003, p.185; Marcus & Francis, 1998, p.32). 'Orientation and overshadowing' are the two principal issues about sun and shade to be considered (Carmona et al., 2003, p.185). In terms of orientation, for instance, in northern climates places should be south-facing to catch the sun; in southern climates the converse should be provided. In places with hot summers, shade may be obtained through vegetation and surrounding buildings. Deciduous trees, in this respect, provide an advantageous position both allowing light in winter when sheds its leaves and creating shade in summer (Carmona et al., 2003, p.186). Places with high summer temperatures, provision of shaded areas should particularly be considered, especially for elderly and children who are critical regarding the sun expose (Marcus & Francis, 1998, p.33). On the other hand, spacing between buildings and between buildings and trees is critical and should be

considered in terms of overshadowing (Carmona et al., 2003, p.186), and additionally 'solar access analysis' should be prepared while the design of a square (Marcus & Francis, 1998, p.34).

Wind as another critical climatic element is influential on the users' feeling of comfort. When in relatively hot spots and humid climates, wind serves as a tool for cooling the environment, however in cold temperatures or 'excessive windiness', it makes users rather uncomfortable (Marcus & Francis, 1998, p.33). As previously mentioned above, proper design of buildings and streets, together with landscape elements, can contribute to the air-ventilation of the environment (Carmona et al., 2003, p.186-187). For the non-humid (droughty) spaces, apart from arrangements about wind and sun, use of 'water' elements may be effective (Carmona et al., 2003, p.187).

Such climatic elements as wind and sun should be taken into account during the design processes, in order to create 'usable' and 'successful' squares. Design of buildings and their relations with each other, along with landscaping should be critically considered.

2.2.4.2.3.5 SUBSPACES

Subspaces should be provided particularly in larger plazas in order to stimulate people to use that space and as a result contribute to the success of the square. Previous research illustrate that people prefer to use a square which provides a visual complexity including variety of spaces (provided by level changes, planting, seating etc.), natural elements or street furniture (Marcus & Francis, 1998, p.36). Subspaces also create a 'sense of belonging' to that place since they provide an enclosed and individual space for the users (Marcus & Francis, 1998, p.36).

Subspaces should be explicitly but slightly separated from the main area and the user should feel physically away yet still connected to the whole within the space which is not 'so small' like someone feeling uncomfortable when 'entering a private room' nor 'so large' that is deterrent and 'alienating' for someone when the place is devoid of people (Marcus & Francis, 1998, p.37).

Level Changes

Provision of level changes are one of the major sources of subspace generation. Along with subspaces, level changes have various aesthetical and functional contributions such

as an upper level aids providing seating places, vantage points, leaning spaces, a stage for performances and differentiating levels add a 'more human-scale' environment; level changes have psychological aspects as well (Marcus & Francis, 1998, p.46). Cullen (1961, 175-177 cited in Marcus & Francis, 1998, p.46) in this respect, states that 'height in the townscape equals privilege; depth equals intimacy; and, depending on one's psychological need, a plaza incorporating level changes provides locales for both these moods'.

Level changes should be considerately designed and implemented for the disabled users. Moreover, in sunken squares, although there is a psychologically 'intimate' and 'enclosed' space, or conversely in elevated plazas providing a more 'privileged' environment (away from traffic, and noise etc.), visual access and sight lines should be taken into account and the relation among levels should be sustained, if users cannot see the space they will not use it; thereby there should be an 'attractor' that draws attention of the potential users and make them use the place (Whyte, 2009, p.129; Marcus & Francis, 1998, p. 47-48).

2.2.4.2.3.6 LIGHTING

Lighting is a significant physical element that influences the use and contributes to the success of squares especially during night time. The lighting of a square should provide a sense of welcome and should ensure safety and security. 'Lighting … for town squares must form a balance between good seeing conditions over the entire area and a light pattern that provides an attractive and welcoming visual environment' (Phillips, 2002 cited in Ünver, 2009, p.59). The lighting of a square also aid creating image and identity of a place (Carmona et al., 2003, p.187). Access of natural daylight into a squae allowing various play of light makes significant aesthetic contributions (Carmona et al, 2003, p.187); similarly particular night lighting creates interest in the place and stimulates a sense of discovery (Phillips, 2002 cited in Ünver,2009, p.59).

2.2.4.2.3.7 HUMAN SCALE

Human scale is another crucial quality for the success of a square. As far as 'urban areas exist for human beings' this quality of 'human scale' should be primarily provided throughout the urban spaces in cities (Tibbalds, 2001, p.39).

Tibbalds (2001, p.39) argues that 'a comfortable human scale environment' may be created by considering the 'scale and pace of pedestrians, not … the fast-moving vehicles'; however, this does not imply an over-minimization of dimensions. High buildings and huge structures with proper designs considering the perception of people at the 'eye level' may be included (such as landmarks); yet the lower heights seems to be more human-friendly (Tibbalds, 2001, p.39; Shaftoe, 2008, p.141). Building façades, in this respect contribute to create a human scale as well, a low height building without a friendly façade does not provide a pleasant environment. Additionally, there should always be an activity embedded in the frontage of the surrounding buildings (like particularly shopping) (Tibbalds, 2001, p.41).

Vast open areas and left-over spaces that are a result of twentieth century planning approaches ('in which streets and public spaces are no longer clearly defined at their edges by buildings'), are 'unlikely' places to create a sense of human scale (Tibbalds, 2001, p.40; Shaftoe, 2008, p.141). The surrounding buildings should define the square without making it seem as a vast open area.

The *sense of enclosure* in a place is preferred by users, unless the place is *claustrophobic* (Shaftoe, 2008, p. 141). Human scale environment can be achieved by stimulating a sense of enclosure through the use of buildings – as mentioned up above, walls, arcades and natural elements around the square that provide a sense of protection and well-being as well (Tibbalds, 2001, p.40-42; Shaftoe, 2008, p.141; Childs, 2004, p.135).

Paving introduces 'scale' to urban spaces as well; for instance, 'stone paving slabs' introduce a 'human scale' and thus make the 'large, hard' spaces easier to perceive (through human proportions) (Carmona et al., 2003, p.160). The proper use of public art, street furniture, seating elements, kiosks, eating and drinking facilities etc. may aid provision of a human scale environment (Tibbalds, 2001, p.44-46).

2.2.4.2.3.8 PUBLIC ART

Public art is a remarkable asset that should take place in a successful square. Besides having a variety of functions ranging from 'social, political, experiential, and/or formal speech', public art has other 'architectural' functions in a public space regarding both the physical design of the space and the behavioral and psychological needs of the users (Childs, 2004, p.183).

Public art primarily contributes to the generation of image and identity; it also aids the spatial setting of the square and creation of subspaces; it may provide shelter and protection, seating places, creative playgrounds and operate as a landmark (Childs, 2004, p.183). Being an essential element as one of the major sources of social interaction (creates 'triangulation' in Whyte's (2009, p.154) terms) public artworks psychologically stimulate a sense of engagement and discovery, provides comfort and creates relaxation and joy (Carr et al., 1992; Carmona et al., 2003); however on the other hand, unattractive public artworks may alter the reactions of the people and create just the opposite responses (Shaftoe, 2008, p.118). Marcus & Francis (1998, p.48) reviews that, 'art in public spaces … should make a positive contribution to the city, and to the well-being of its inhabitants … [it] should give the public some positive benefit – delight, amenity, fantasy, joy, sociability – in a word a sense of well-being'.

Although art is a subjective representation of the artist himself; in order to anchor people to the place, public artworks should be designed in a way that will be understood by the general public (Marcus & Francis, 1998, p.50, Shaftoe, 2008, p.118).

Camillo Sitte (1965) made recommendations about the location of the artwork (*monuments*) in his seminal work, having such a principle '*that the center of plazas be kept free'*, according to Sitte monuments should be located at an '*off-center'* position or along the edge, close to pedestrian routes.

Public art involves generally sculptures, monuments, statues, fountains (also aids creating a pleasant environment by screening out the noises of traffic etc.), murals, sculpture-like furniture (such as seating elements) and additionally today graffiti and stenciling etc.; it can be produced with any material, in any form, but should be 'robust and resilient' and most significantly should fit to the context of the environment it will be located both in terms of material and form (Shaftoe, 2008, p.116-118; Marcus & Francis, 1998, p.50).

2.2.4.3 BEHAVIORAL AND PSYCHOLOGICAL ASPECTS

Behavioral and psychological aspects cover a humanistic approach which is beyond the physical and geographical functionalist structure of a square. Yet the major aim of both physical and geographical issues is to provide behavioral and psychological satisfaction of the users (regarding their needs that are to be satisfied) in order to sustain success of

the square. Carr et al. (1992) introduces five needs that people satisfy in public space such as 'comfort' including safety and security, 'relaxation', 'passive engagement with the environment', 'active engagement with the environment' and 'discovery'. And joy is another psychological need that can be satisfied in a square.

2.2.4.3.1 Comfort

Comfort appears as the primary concern of the successful squares regarding its effect on the use of a place. Behavioral and psychological experience of comfort is realized through the provision of microclimatic conditions (shelter and protection for sun, cold and wind), physical elements (such as seating [as Whyte (2009) particularly stresses], landscaping etc.) and psychological satisfaction (regarding the identity and the 'ambiance of the space') (Carmona et al. 2003, p.166; Shaftoe, 2008, p.60). Comfort of a space can be developed by means of 'physical design' and 'management strategies' (Carmona et al., 2003, p.166).

2.2.4.3.1.1 SAFETY AND SECURITY

Carr et al. (1992, p.97) states that 'social and psychological comfort is a deep and pervasive need that extends to people's experiences in public spaces. It is a sense of security, a feeling that one's person and possessions are not vulnerable'. In this respect, it could be argued that, there is a relationship between '*comfort*' and '*safety and security*'. Once an individual experiences a 'comfortable' sitting place and senses that he is in a 'safe environment', this delineates the relationship (Shaftoe, 2008, p.60).

A safe and secure environment is generated through providing spaces with firstly 'minimized crime opportunities' and ' antisocial behaviour'; and on the other hand, providing 'maximized help options' in any safety threats (Shaftoe, 2008, p.60). Developing safety and security conditions results with the increase in the comfort of the space; therefore in order to sustain the comfort regarding the safe environment of a square various managerial (such as the use of a 'security personnel') and physical design ('providing visual access' into the square) strategies may be adopted (Carr et al, 1992, p.97).

2.2.4.3.2 Relaxation

Relaxation is directly related with 'psychological comfort', yet it is a 'more developed state with the body and mind at ease' (Carr et al., 1992, p.98). Various studies show that individuals look for physical settings particularly for relaxing and resting, however relaxation does not need to be the major concern of every public space design (Carr et al., 1992, p.104). A relaxing environment can be created with the proper use of natural elements (trees, grass, water elements) and segregation of site from the vehicular traffic; but both provision of visual access into the space (regarding the natural elements) and safety and security concerns (regarding the separation of the space from the surrounding environment and traffic) should be taken into consideration (Carmona et al., 2003, p.166).

2.2.4.3.3 Passive Engagement with the Environment

Passive engagement with the environment, although it is related with creating relaxation up to a degree, implies that the person takes place in the environment, but does not present an active role (Carr et al., 1992, p.105). 'People-watching' (observing others without eye contact) is the major type of passive engagement that can be actualized commonly in public spaces; other means of passive engagement are offered along 'fountains, views, public art' and sitting, reading, observing performers etc. (Carmona et al., 2003, p. 166; Francis, M., 2003, p.23). Passive engagement makes significant contributions to the success of a square by introducing vitality to the place, which is a crucial aspect according to Montgomery (1998, p.96) referring to the number of people around the place. In this respect passive engagement like observing others attracts people and consequently, people attract more people (Shaftoe, 2008, p.66). On the other hand, being 'in the presence of other human beings is reassuring' (Shaftoe, 2008, p.66).

2.2.4.3.4 Active Engagement with the Environment

In active engagement with the environment, there is a more physical and 'direct' interaction among 'users and place', and between users – within each other (Carr et al., 1992, p. 1992). Being among other people in a public space provides chances of social interaction. Gehl (1987, p.18-19) introduces a scale of contact forms ranging from passive contacts to chance contacts, acquaintances, friends and close friendships; which

is in other words, ranging from 'being alone' to 'being together'. Other than the satisfaction gained with passive engagement through people-watching, one may prefer being together and want to create a more 'direct contact, whether with friends, family or strangers' (Carr et al., 1992, p.119). In this respect, Carmona et al. (2003, p. 167) states that, 'successful public spaces provide opportunities for varying degrees of engagement, and also for disengagement from contact'; such design elements as fountains, seating elements, sculptures, statues (public art) , kiosks etc. and activities should be considerately organized in order to induce social interaction and thus, active engagement. This is what Whyte (2009, p.154) calls 'triangulation', 'the process by which some external stimulus provides a linkage between people and prompt strangers to talk to other strangers as if they knew each other'. Previously mentioned elements can be designed in a setting that individuals would have an 'excuse' to talk to other people they do not know.

2.2.4.3.5 Discovery

Discovery is related with feelings of curiosity and excitement that will make people come to a place; therefore it 'depends on variety and change' in the organization of the space (Carmona et al., 2003, p.168). There is also a kind of mystery in the place that stimulates the experience of discovery (Carr et al., 1992, p.135). The setting of space may take a variety of forms according to seasonal changes, management strategies, and animation such as concerts, art exhibitions, street theatre, festivals, society events etc. (Carmona et al., 2003, p.168).

2.2.4.3.6 Joy

Within the context of previously mentioned behavioral and psychological needs of people to use a place, the need of 'joy' appears as a concluding and complementing aspect for the comprehension of the successful squares. Each of the needs that are pointed out, in a sense, aims at attaining joy in the end. For instance, people watching in terms of passive engagement and actively having further interactions with others create joy up to a degree, however 'this can be enhanced by providing focal points to draw people in and encourage them to linger' (Shaftoe, 2008, p.111). The use of appropriate hard and soft landscape elements (good materials and natural elements producing much delight), color

(brightening up the environment with colors), public art and provision of entertainment facilities (like animation: concerts, festivals, social events etc.) create considerable amounts of joy and result with social interaction (Shaftoe, 2008, p.112-121).

2.2.4.4 MANAGERIAL ASPECTS

The managerial aspect covers 'the way that the public space is managed' which is a crucial point to be considered for the success of a square. Management of place for a safe and secure environment can be supplied in two ways which are *hard* and *soft controls* (Carmona et al., 2003, p.125) or in other words, *heavy* and *light controls* (Shaftoe, 2008, p.125). Hard controls cover the security officers, rules and regulations, prohibitions etc.; whereas soft controls cover 'symbolic restrictions' (Carmona et al., 2003, p.125). A number of scholars point out that the over-control can make the place unattractive regarding the people's perception that they are not free (Wood, 1981; Holland, 2007 cited in Shaftoe, 2008, p.125). However, good management of a space does not only deals with safety and security; but also deals with the provision of a variety of activities, amenities and maintenance of the physical elements. This study discusses managerial aspect in terms of uses and activities, food: eating and drinking, vending and maintenance.

2.2.4.4.1 Uses and Activities

Squares and plazas serve for a variety of users from different social backgrounds, different age groups, and genders. For a successful square, designers should keep the questions of 'who are the users?' and 'what do they want to do?'; in addition to these they should manage to create a balanced, accessible environment involving 'attractors' that will reach to the users in various ages and genders from any section of the society. Public spaces should be regarded as 'dynamic, organic and adaptable, rather than for a fixed single use' (Shaftoe, 2008, p.45).

Who are the users?

Men are the most common users of squares (alone or in groups); whereas women does not tend to use a square unless there are amenities provided (such as cafés etc.). Whyte (2009, p.106) states that 'the male-female ratio is one to watch. If a plaza has a

markedly low proportion of women, something is wrong. Conversely, if it has a high proportion, the plaza is probably a good and well-managed one and had been chosen as such'. About the location selection of the genders, Whyte (2009, p.107) argues that, men prefer more 'front' places, on the other hand women prefer more 'secluded' parts of the plaza. 'The more a plaza is used, the greater the variety of users' ages and the more evenly sexes are balanced' (Marcus & Francis, 1998, p.27).

Mozingo's (1984 cited in Marcus & Francis, 1998, p.27) research shows that women are more sensitive to 'environmental negatives (pollution, noise, dirt, excessive concrete)' and look for experiencing 'comfort, relief, security, control and relaxation'; where men look for 'publicness, social interaction and involvement'. Designers of a square should also consider spatially integrating both of these psychological desires.

Children and young people are the users of public spaces as well as the adult men and women discussed above. They mainly use squares and plazas as playgrounds and places for 'hanging out' (Shaftoe, 2008). Young people are the ones that are 'most likely to be found in, and to benefit from the public space' and mainly tend to 'stay away' from their parents; yet children should stay closer to them (Shaftoe, 2008). As socialization is an essential issue for the healthy personal development and well-being of children and young people, squares and plazas should be designed considerately providing sociable, enjoyable, exciting and safe environments stimulating a sense of discovery and active engagement (Shaftoe, 2008, p.43).

What do they want to do?

A successful square should provide a variety of reasons to the users to gather and linger. There are many studies searching on the uses taking place in squares and plazas; they show that people would like to use squares to meet with friends, rest for a while and relax, walk through the greenery, have something to eat or drink, watch other people, shop, and engage into various activities such as open air theaters, concerts, festivals, social events etc. (Marcus & Francis, 1998, p.30). There should also be opportunities for children and young people like creative playgrounds, skateboarding and rollerblading etc. (Shaftoe, 2008, p.140). Designers of a square/plaza should 'mix' the activities in order to make the place 'democratically accessible' for all people and 'everybody should feel welcome' in the place (Shaftoe, 2008, p.60; Francis, M., 1987, p.57). In this respect, programming is a significant managerial aspect to be considered. Management of the

plaza should organize programs of events and performances taking place in the square; and public should be well-informed about them (Marcus & Francis, 1998, p.52).

2.2.4.4.2 Food: Eating and Drinking

Provision of such eating and drinking facilities make remarkable contributions to the success of a square since they are one of the most significant people attractors in a place. In this regard, Whyte (2009, p.142) states that 'food attracts people, who attracts more people'.

'Al fresco food and drink offers a sensory pleasure' (Shaftoe, 2008, p.61) and increases the 'liveliness and activity' in a place (Marcus & Francis, 1998, p.51). In addition to food kiosks or pushcart food vendors, cafés and restaurants with tables outside can be placed in a square (Marcus & Francis, 1998, p. 51; Shaftoe, 2008, p.105). Another option is the provision of picnic places, there may not be particularly designed elements, yet people may use various spaces in a square (such as grass, appropriate sitting places with shelters etc.) for picnicking (Shaftoe, 2008, p.106). The key point here is the supply of suitable and adequate litter bins that will sustain the clean and pleasure-giving environment (Marcus & Francis, 1998, p.52; Shaftoe, 2008, p.106).

2.2.4.4.3 Vending

Squares and plazas have an essential commercial role, in terms of being a place for selling and buying a variety of goods, since the ancient times. Because of the fact that squares/plazas can draw attention and increase interest of people in the surrounding environment, vending appears as a significant tool for maintaining economic benefit (Marcus & Francis, 1998, p.53; Akkar Ercan, 2007, p.121).

Provision of vending opportunities in a square increases the liveliness and activity in the place; and since there is going to be more and more people around, it aids sustaining the security of the environment (Marcus & Francis, 1998, p.53).

Apart from food and drinks, vending should include particular products such as flowers, handicrafts; vendors may be artisans (Marcus & Francis, 1998, p.53). There should also be a program about the vendors whether they are going to be permanent or temporary.

The design of the vending 'structures' (stalls, kiosks etc.) should be considered keeping the idea in mind that they also contribute to the identity and character of the place, they can become a symbol of that square/plaza (Childs, 2004, p.162-163). Marcus & Francis (1998, p.54) review the features of vending structures as follows:

> "*-add color and vitality to the plaza*
> *-provide shelter and shade*
> *-contrast with the scale of the surrounding environment*
> *-improve the visibility of the building entrances*
> *-help the plaza not look empty during winter or off-peak hours*."

2.2.4.4.4 Maintenance

Management of a square requires a regular and persistent maintenance facility in order to sustain the success and use of the it. With the provision of 'quick repairs', regular clean ups and emptying litter bins, lawn care and planter maintenance expresses that the square/plaza is 'cared' and significantly influence users perception of the square/plaza as a more pleasure giving environment (Shaftoe, 2008, p.127-128). In this respect, Marcus & Francis (1998, p.54) state that 'in any public space, people will care for an environment if they see that management cares'.

On the other hand, there are social, cultural and personal dimensions in the success of a public space related to the 'public' who is going to be the user of the place. Carr et al. (1992, p.235) argues that good public spaces are easily created where community already exists. When there is a homogeneous community with similar needs and preferences, having similar meanings attributed to specific places, successful public spaces will be achieved. Similarly Banerjee (2001, p.19-21) states that designers should focus on the concept of public life rather than public spaces and moreover, focus on the design for conviviality and public life, and respond to the changing demands of increasing diversity of the urban population. Culture (being whether an urban, open-air society or not) and the personal psychological mood (being positive and perceiving a more pleasant environment or vice-versa) are influential subjects on the other hand, about the users' physical and psychological perception of a square/plaza (Knez & Thorsson, 2006, p.266).

'Only by providing basic human dimensions and qualities can open spaces be made into truly democratic, meaningful and lovable places' (Francis M., 1987, p.59). These human dimensions have been studied in order to reveal a design criteria about the attributes of a good, successful square/plaza regarding the geographical, physical, behavioral-psychological and managerial aspects. Although every individual has different tastes and preferences, these attributes obtained from literature may be helpful in satisfying the needs of general public. Table 2.3 presents the summary of the design attributes of good urban square explained in detail previously .

Table 2.3: Design criteria for a 'good' urban square

DESIGN CRITERIA FOR A 'GOOD' URBAN SQUARE		
GEOGRAPHICAL ASPECTS		
Location	-central locations -mixed-used environments (offices, shops, residential areas, hotels, retail stores, cafes, restaurants etc.) -higher densities	(Whyte, 2009; Shaftoe, 2008; Tibbalds, 2001; Marcus & Francis, 1998)
Accessibility	-close to busy pedestrian and vehicular routes and transportation nodes -in reach of all means of transportations (pedestrians, cyclists, vehicles)	(Whyte, 2009; Shaftoe, 2008; Marcus & Francis, 1998; Childs, 2004)
Catchment area/ Potential service area	-average walking distance of 275m -5 to 10-minute bicycle trips distances from 1200m to 3200m -5 to 10-minute automobile trips distances from 800m to 2400m	(Marcus & Francis, 1998; Childs, 2004)
PHYSICAL ASPECTS		
Form	-may be in various shapes , not one shape fits all (may be asymmetrical) -should be defined (by buildings, walls, natural elements, paving etc.) -create a sense of enclosure (creating a sense of security)	(Carmona et al, 2003; Sitte, 1965; Childs, 2004; Nasar, 1998; Krier, 1979; Shaftoe, 2008)
Size	-not too large, not too small -well-proportioned -pleasant human scale: 12m-24m (along both sides) -maximum dimensions: 70m-100m (along both sides)	(Shaftoe, 2008; Lynch, 1971; Alexander, 1977; Gehl, 1987; Marcus & Francis, 1998; Childs, 2004; Whyte, 2009)

Table 2.3 (Continued)

PHYSICAL ASPECTS			
Visual complexity: visual and aesthetic elements		-'center' and 'edge' are the major design foci	(Alexander et al. , 1977)
	Seating	-provide a variety of sitting, leaning, resting places -provide primary sitting places as benches, chairs, table seating, moveable seating -provide secondary (informal) sitting places along steps, ledges, building walls, planter-bed edges, mounds of grass etc. constituting the half of the seats in a plaza -should be at 40-75 cm in height -may be in various forms and styles allowing diversity of sitting behavior and allowing using seating as vantage points -use appropriate materials for differentiating climatic and environmental conditions -orient sitting places according to the sun and shade, and activity places	(Whyte, 2009; Marcus & Francis, 1998; Alexander et al, 1987; Childs, 2004; Shaftoe, 2008)
	Landscaping	Hard and soft landscaping elements	
	Paving	-provide 'hard, dry, non-slip surface' for walking -create a particular floor pattern for *identical*, *comfortable* and *beautiful* environment -provide a visual expression representing a sense of center, stopping or staying by using floor patterns -may be in various materials such as brick, stone, marble, concrete etc. 'stone paving slabs' and introduce a 'human scale', thus make the 'large, hard' spaces easier to perceive -use more durable materials regarding the differing climatic conditions and the long term economic benefits -embed a variety of activities to the floor pattern such as gameboard	(Carmona et al, 2003; Childs, 2004; Shaftoe, 2008)

Table 2.3 (Continued)

PHYSICAL ASPECTS			
	Natural elements	-provide a variety of natural elements such as trees, plants, shrubs, grass and lawns -use the natural elements to create a microclimate, to provide shelter and protection (in a variety of height and shade options) without interrupting the users' sight line and visual access to the activities, others, fountain views etc. -use the advantage of seasonal changes in the environment regarding the natural elements in terms of color and texture -use trees and flowers to add color and fragrance -provide grass and lawn area for flexible group seating, sunbathing, picnicking, playing games etc. -provide/create slopes and hills (within the grass and lawn area) allowing users to have a better visual access to the main site -let the natural elements cover the hard buildings and introduce a human scale and a softer environment -use natural elements to create subspaces -use natural elements to create enclosure	(Carmona et al, 2003; Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998)
	Shelter and Protection: Microclimate	-properly design surrounding streets and buildings -use landscape elements -let the space get maximum amount of daylight -provide a shading shelter for the sun through vegetation and surrounding structures -provide protection from cold and wind -orient places towards north in southern climates, and south in northern climates -properly organize the spacing between surrounding buildings and trees considering overshadowing -use solar access analysis - properly organize the surrounding buildings, streets, and landscape elements for the air-ventilation -use water elements in non-humid places	(Carmona et al, 2003; Marcus & Francis, 1998)
	Street furniture	-incorporate appropriate street furniture such as lighting elements, lampposts, planter-beds, benches, bollards, litter bins, boundary walls, railings, gazebos, kiosks, fountains, monuments, statues -use properly designed furniture that fit the site -avoid using excess amounts of furniture interrupting the use of space -create identical, particular furniture to enhance local identity	(Carmona et al, 2003; Childs, 2004)

Table 2.3 (Continued)

PHYSICAL ASPECTS			
	Subspaces	-provide a variety of subspaces -separate clearly from the main space but subtle -not 'so small' like a private room nor 'so large' that is deterrent and 'alienating' when the place is devoid of people -use level changes for creating subspaces -use landscape elements for creating subspaces -provide seating -provide activities	(Marcus & Francis, 1998)
	Level changes	-use level changes for creating subspaces -use an upper level (elevation) to create seating places, vantage points, leaning spaces, a stage for performances -use elevated plazas to stay away from traffic, noise etc. -use level changes to provide human scale environments -use lower level (sunken plazas) to create more enclosed and intimate spaces -provide visual access of the users -use 'attractors' in sunken plazas to provide visual accessibility for the users -consider the accessibility of the disabled people	(Marcus & Francis, 1998, Whyte, 2009)
	Lighting	-let the place reach natural daylight -provide a 'good seeing' in the whole area during nights and create a safe and secure environment -provide a particular lighting pattern to create an attractive and welcoming visual environment -use special lighting design to create image and identity	(Phillips, 2002; Carmona et al, 2003)
	Human scale	-keep dimensions according to pace of pedestrians -keep the structures at eye-level in lower heights -use high and huge buildings as landmarks -embed activities and uses into the surrounding building frontages such as vending, eating and drinking etc. -define the plaza with the surrounding buildings -create a sense of enclosure by using buildings, walls, natural elements, arcades - incorporate physical elements properly such as paving, street furniture, public art, seating, kiosks	(Tibbalds, 2001; Shaftoe, 2008; Carmona et al, 2003; Childs, 2004)
	Public art	-locate at an 'off-center' position -may function as a landmark -locate close to the pedestrian routes -may be designed as shelter and protection, -may function as seating places -may function as creative playgrounds	(Childs, 2004; Whyte, 2009; Carmona et al, 2003; Carr et al, 1992; Marcus & Francis, 1998; Shaftoe, 2008; Sitte, 1965)

Table 2.3 (Continued)

BEHAVIORAL AND PSYCHOLOGICAL ASPECTS		
Comfort	-provide easy access to site -provide proper microclimatic conditions (shelter and protection for sun, cold and wind) -provide natural elements -provide water elements -provide adequate primary and secondary seating with proper materials -provide proper walking spaces with robust materials -provide adequate amount of appropriate furniture -provide human scale environment -provide activities such as eating and drinking, vending etc. -provide well-managed environment (in terms of activities, programs, vending and food opportunities and security) -well-maintained and clean environment including gardening, cleaning, repairing, maintenance -provide safety and security	(Carr et al, 1992; Carmona et al, 2003; Shaftoe, 2008)
Safety and security	-provide a security personnel -provide visually accessible places -avoid providing hidden spaces - provide lighting a 'good seeing' in the whole area during nights -provide enclosure -provide activities that the plaza will be used 24/7, vendors, food and drinking facilities etc.	(Carr et al, 1992; Shaftoe, 2008)
Relaxation	-provide a variety of natural elements, grass, trees, flowers, plants, water elements (fountains, pools; screening out the noises of traffic as well) -provide comfortable seating places (including resting, sunbathing etc.) -ensure security -provide subspaces -provide activities that people will passively or actively engage into and relax -provide play grounds	(Carr et al, 1992; Carmona et al, 2003)
Passive Engagement with the Environment	-provide scenes to be observed/watched like people, fountains, views, public art etc.	(Carr et al, 1992; Carmona et al, 2003; Francis M., 2003; Montgomery, 1998;Shaftoe, 2008)
Active Engagement with the Environment	-provide 'triangulation' (a physical element making people to talk to strangers) -use seating elements, fountains, public art, kiosks etc. -provide activities such as festivals, events, concerts etc.	(Carr et al, 1992; Carmona et al, 2003; Gehl, 1987; Whyte, 2009)

Table 2.3 (Continued)

BEHAVIORAL AND PSYCHOLOGICAL ASPECTS		
Discovery	-create curiosity and excitement -incorporate mystery -organize the space as to provide variety and change such as changing according to seasons -provide playgrounds -provide public art adaptable to different uses (such as games, seating etc.) -provide light plays -provide water plays -organize activities, animate the space with concerts, art exhibitions, street theatre, festivals, society events etc.	(Carr et al, 1992; Carmona et al, 2003)
Joy	-use public art -use color -use hard and soft landscaping elements - provide eating and drinking facilities -provide play grounds -animate place with entertainment facilities such as concerts, art exhibitions, street theatre, festivals, society events etc.	(Shaftoe, 2008)
MANAGERIAL ASPECTS		
Uses and activities	-provide a variety of uses and activities considering the diversity of users (women, men, children, young, elderly…) -provide places to meet -provide place to gather -provide places to sit -provide places to rest -provide relaxing walks (walking paths through greenery) -provide eating and drinking facilities -provide vending -provide concerts, open air theaters, social events, art exhibitions, performances, dance shows, festivals (enhancing image and identity of the plaza as well) -provide creative playgrounds -provide spaces for skateboarding, rollerblading etc.	(Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998; Francis M., 1987)

Table 2.3 (Continued)

MANAGERIAL ASPECTS		
Food: eating and drinking	-provide kiosks, pushcart food vendors, cafés and restaurants etc. -provide outdoor tables -provide picnic places -provide shelters -provide adequate and properly located litter bins (to keep the plaza clean)	(Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998)
Vending	-provide vendors -provide vending of particular products such as home-made food, flowers, handicraft materials etc. -provide vending structures such as stalls, kiosks with shelters -provide proper design of vending structures to enhance image and identity of the plaza -provide an organized program (according to whether vendors are permanent or temporary)	(Marcus & Francis, 1998; Akkar Ercan, 2007; Childs, 2004)
Maintenance	-provide regular and persistent maintenance -provide a professional personnel (gardeners, dustmen, repairmen etc.) -provide quick-repairs -provide regular cleaning -provide regular emptying litter bins	(Shaftoe, 2008; Marcus & Francis, 1998)

CHAPTER III

HISTORICAL BACKGROUND

This chapter introduces the evolution of the public spaces within the context of plaza through a historical perspective. It reviews the historical background of the squares regarding both Western and Turkish experiences. In the first part, chapter presents western experiences within six periods starting from the classic period and ending up with today's approaches. In the second part, chapter concentrates on the Turkish context, in case of capital city Ankara, within two major periods related to the proclamation of Republic. In the final part, the chapter presents an evaluation of the development of western and Turkish squares within different periods, regarding the good design criteria introduced in the previous chapter.

3.1 WESTERN EXPERIENCES

This section of the study presents the review of squares/plazas in western cities and towns within six major periods as, classic period including Greek Agora and Roman Forum; medieval period with medieval town square; neo-classical period including renaissance town and baroque city; 19th century concepts as regularization, progressist, culturalist and garden city models; finally modern and post-modern periods' city concepts.

3.1.1 CLASSIC PERIOD

This part reviews the plaza concept during the classic period presenting the main features of the Greek Agora and Roman Forum.

3.1.1.1 GREEK AGORA

In Greek cities with the development of democracy against the power of kings ,who were the former dominators of the cities, community facilities have been reshaped accordingly. City plans have also been modified representing the sensitive and aesthetic character of this democratic process (Gül, 1993, p.37).

The early Greek town had an 'irregular layout'. An acropolis existed in connection with each larger settlement as well as a void of irregular shape which later would become the "agora". Acropolis and the agora were the main characteristics of the Greek cities (Zucker, 1959, p.27).

The acropolis was the nucleus of the early Greek cities, developed generally from a fortified place of refuge. It is the seat of dominant power and a sacred area where temples and monuments were located (Zucker, 1959, p.27) (Figure 3.1). This kind of a fortification represents the characteristic of *creating enclosure* in the Greek civilization. Such an enclosure of the sacred land in ancient Greece with boundary stones and walls was to limit the extent of surrounding construction (Trancik, 1986, p.65).

Figure 3.1: The acropolis, Source: Sitte, 1965, plate I-b.

Acropolis also served as a gathering space during the earlier archaic centuries, a function which it transferred to the agora together with the growth of the town. Agora was developed from the need for a political and commercial center for all the inhabitants

(Zucker, 1959, p.27). Principal shopping facilities and meetings for especially the political intercourse were conducted in the agora. Agora is what makes the town a polis (Zucker, 1959, p.31). Agora was mainly a platform for political gatherings but gradually its role changed into a center for marketing.

Agora was usually *located at the heart of the city* and in harbor towns as close to the harbor as possible. The geometrical form was usually square or rectangular (Figure 3.2). Zucker (1959, p.37) indicates that "The tendency toward strict and regular confines became more and more evident and the space, in contrast to earlier times, was conceived as a distinct configuration, a 'Gestalt'. The single structures surrounding it were architecturally subordinated to the idea of the enclosed space as a whole."

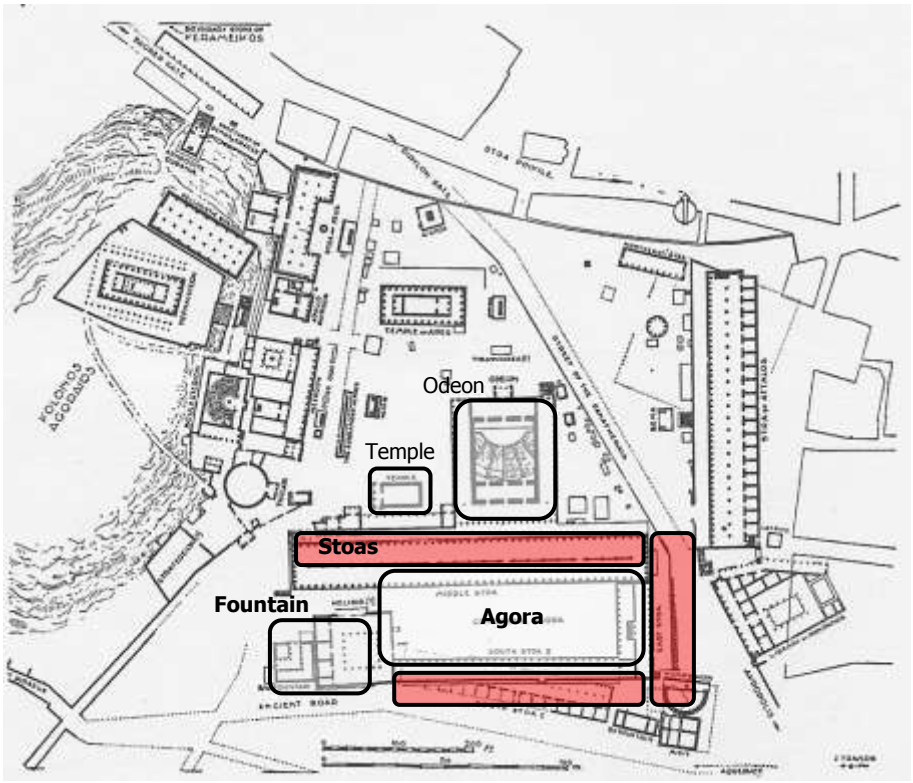


Figure 3.2: Plan of the ancient agora, Source: Zucker, 1959, p.42.

Agora was surrounded by colonnades or porticoes around the individual temples in stoas, that are sheltering and unifying the vicinity of the market space (Figure 3.3). Porticoes were lower than the temples they surrounded and represented the transition from the

individual architecture of the temple to the free and open space of the agora. Stoa defines the total space which is divided into the volume of the temple, the open area and the stoa itself. Stoa later became the place for marketing and bargaining (Zucker, 1959, p.37; Gül, 1993, p.40). These porticoes created the monumental expression of the agoras' "public character" in the Greek cities.

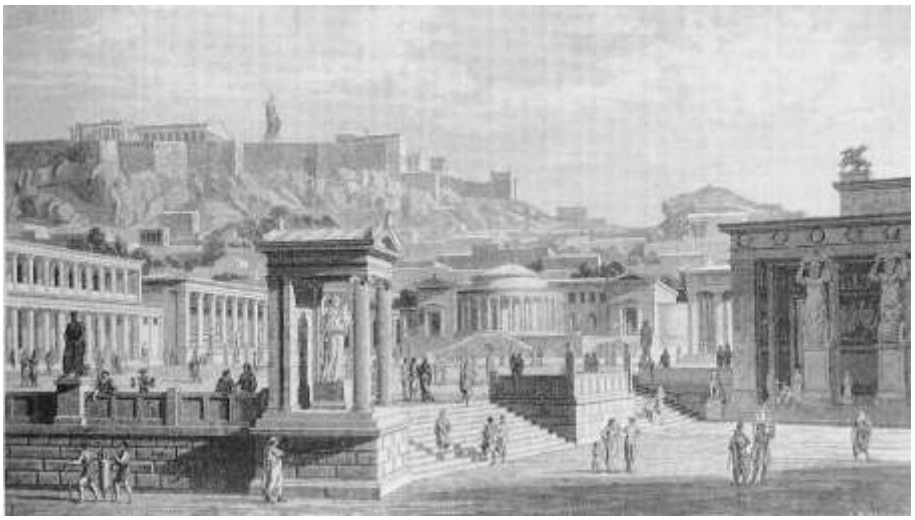


Figure 3.3: : The Agora (market place), Source: Sitte, 1965, plate I-a.

Finally in Hellenistic times, as Zucker (1959, p.44)emphasizes; "agora had become an almost unified structure. Public buildings, temples around the agora, and occasionally a temple on it are no longer spatially isolated but are anchored in some system of mutual reference, each structure thus becoming part of a whole". Such magnificent public buildings as the Odeon, the treasury, the library and the prison added to agora later (Gül, 1993, p.41).

Even in Hellenistic times, the shape of the free open space, the form of the three-dimensional void and the aesthetic aspects of space as well, was not the main concern. The "relation of masses to each other" used to be the Greeks' major concentration in space design (Zucker, 1959, p.44).

3.1.1.2 ROMAN FORUM

The Greek civilization had a great impact on the Mediterranean settlements, including Romans, in terms of its new urban understanding. Romans transplanted Hellenistic forms upon the irregular patterns of their villages and used these forms for their own towns (Zucker, 1959; Gül, 1993, p.41).

Three of the main characteristics that the Roman town differs from the Greek towns are; the existence of the axes (basic streets): *cardo* and *decumanus*; concentration on the void area at the intersection; and axial location of main buildings and the square instead of the lateral location in the Hellenistic town (Zucker, 1959, p.48).

Although Greeks are supposed to be artistic and Romans to be practical and rational with their functional approaches towards urban problems; it is evident that the Romans have contributed to the development of architecture and city planning (Zucker, 1959, p.45; Gül, 1993; Gallion &Eisner, 1986). The determining contribution is 'the feeling for the shape of the void space, for its artistic meaning, and for its modification by specific proportions and by a superhuman scale' (Zucker, 1959, p.45).

Vitruvius writes about the design of the forum that it 'should be proportionate to the number of inhabitants, so that it may not be too small a space to be useful, nor look like a desert waste for lack of population'. (cited in Moughtin, 2003, p.87)

Forum was the nucleus of the Roman town as was the agora in Greek town. It was the original center of business and political life in early republic. Forum had a rectangular ground plan in general though it might be adapted according to the local conditions (Figure 3.4). The major architectural elements representing the public character in the forum were the Senate, Basilica, the other public buildings, innumerable shops and crowded tenements. Continuous colonnade unified the variety of the buildings surrounding forum (Zucker, 1959; Gül, 1993) (Figure 3.5).

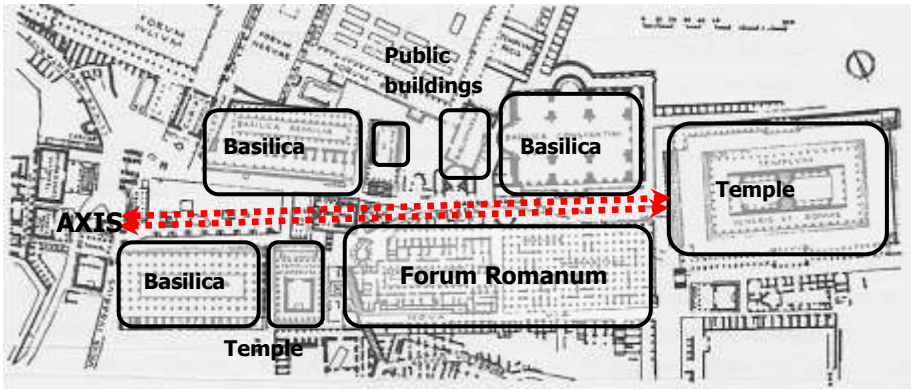


Figure 3.4: Forum Romanum plan, Source: Zucker, 1959, p.50.

Figure 3.5: Forum Romanum, Source: Zucker, 1959, plate 7.

3.1.2 MEDIEVAL TOWN SQUARE

In the medieval era, the concept of a town was entirely different from the Greeks and Romans. The earlier medieval towns are characterized by extremely narrow, irregular street patterns and squares. Church is the dominating architectural element with its parvis in front, serving as the only open space, without any planned relation to the surrounding town (Zucker, 1959,p.64-65, Gül, 1993, p.48).

According to Zucker (1959, p.67), medieval towns evolved from four different beginnings as follows,

1.from existing Roman cities, preserving the old plan in the scheme of their reconstructed streets;
2.around existing castles, monasteries, or independent church structures, their local immunity areas becoming the nucleus of later expansion;
3.out of favorably located trading posts at a crossroad, or at a ford across a river, or at a harbor or bay, etc;
4.as newly founded and organized communities.

The form of the first and the last towns (1 and 4 above) developed into regular shapes; while the other two towns (2 and 3) had followed their existing irregular shapes. Accordingly the form of the squares in these towns represented the same basic differences.

Influence of the Roman origin in the town, in the first group, may be evident as a whole, however the ancient forum does not take place in the form of the later medieval square. Early medieval towns France, Germany, the Low Countries and England, in the second group, 'developed very slowly and without a preconceived plan'. The era that the church gains more power induced the town to grew around this 'physical nucleus of power', the monastery or the individual structure church (Zucker, 1959, p.69). 'The parallel existence of two separate squares', one before the church and the other as market square, used to be the medieval towns' significant aesthetic feature (Figure 3.6).

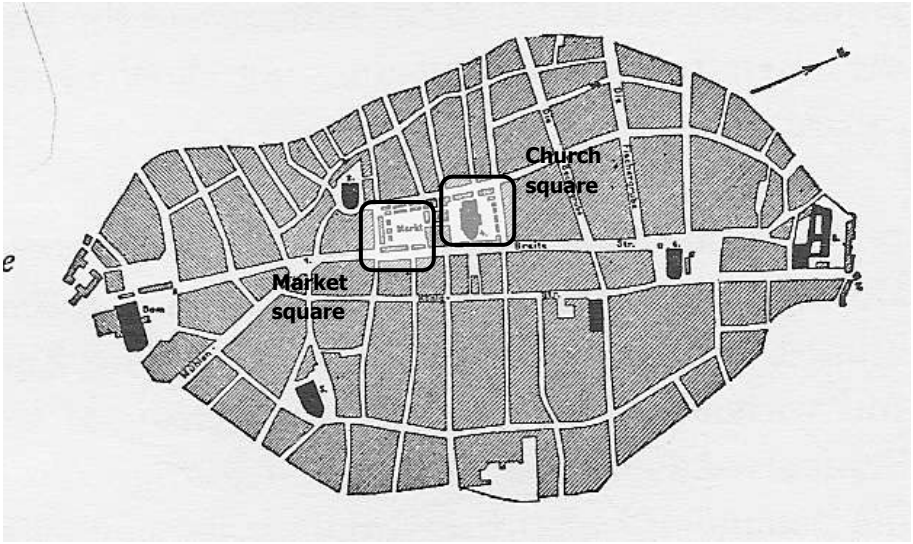


Figure 3.6: The parallel existence of two separate squares, Source: Zucker, 1959, p.70.

The third group represents the towns developed around small trading centers. During 12th and early 13th centuries especially in Germany 'main traffic arteries became marketing centers in the shape of a broadened street' (Zucker, 1959, p.71).

The last group, the newly founded towns, represented a 'rigid and schematic' identity in France, and in contrast, a 'less regular, individualistic' character in Germany. Basic difference of this group from the others is based on 'the strict schematism of the gridiron system and planned squares' common in these new towns (Zucker, 1959, p.71-72) (Figure 3.7).

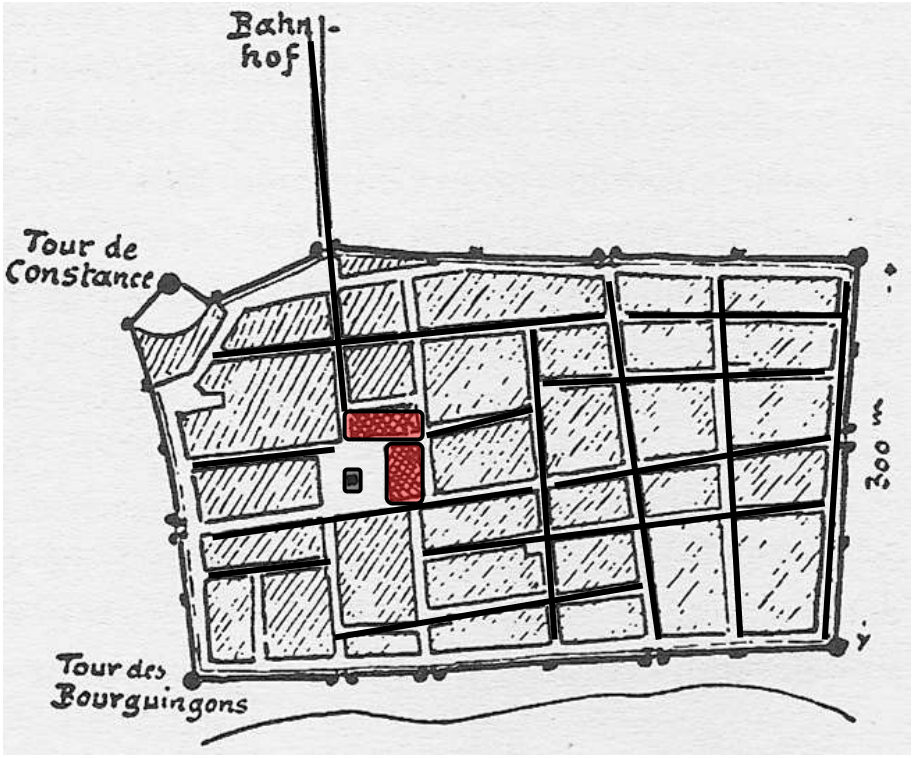


Figure 3.7: Strict schematism of the gridiron system and planned squares, Source: Zucker, 1959, p.72.

In a medieval town, open spaces mainly dominated by the church and the market constituting a dynamic public space for daily activities. Significant public buildings such as Town Hall and The Guild Hall were located on or next to the church plaza which is the focal point of the town (Gül, 1993, p.49; Zucker, 1959, p.74-76). These open spaces are generally without traffic, dedicated to the pedestrian circulation.

Although the medieval town is not to be 'picturesque', later in the 19th century, it is Camillo Sitte (1965) who emphasized this feature of the medieval town.

To summarize the Medieval square, Piazza del Campo in Siena, Italy, constitutes the best example reflecting the Medieval urban thought (Trancik, 1986, p.61, Zucker, 1959, p.86) (Figure 3.8). Trancik (1986, p.62) emphasizes its significance as follows;

> *"The piazza del Campo in Siena offers a number of important lessons to the urban designer. Much of its strength, as a space stems from the contrast between the dense mass of surrounding buildings and the open piazza. The campanile of the Palazzo Publico serves as a vertical focal point. As early as 1262 a city ordinance*

governing the height and facades of buildings facing the square was effected in recognition of the role a consistent wall plays in defining the character of urban space."

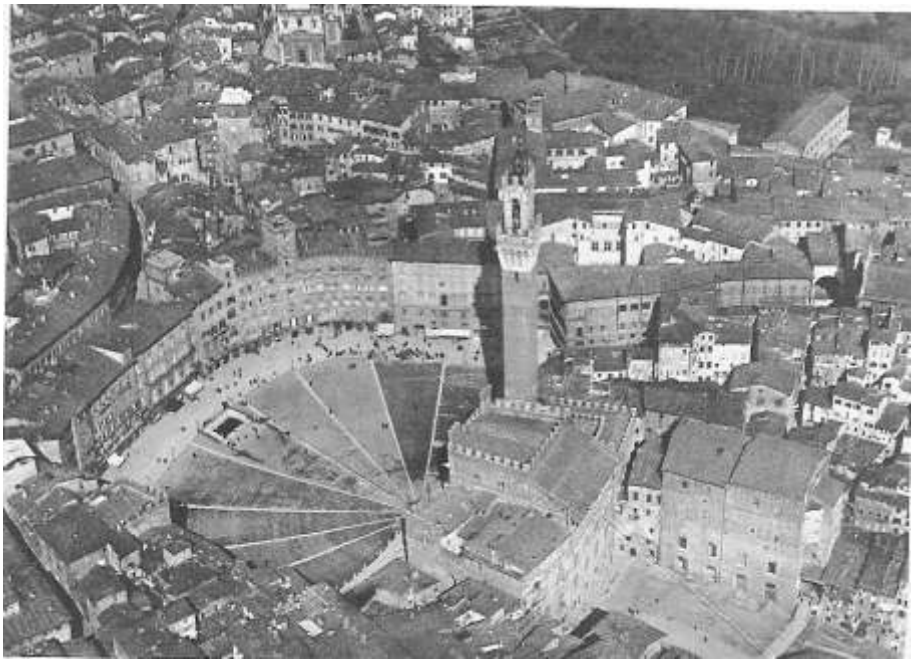


Figure 3.8: Piazza del Campo, Source: Zucker, 1959, plate 24-b.

3.1.3 NEO-CLASSICAL PERIOD

This section reviews the neo-classical plazas in renaissance and baroque towns.

3.1.3.1 RENAISSANCE TOWN

From the 15th century city planning had apparently evolved and become effective in development of towns. Rational ideas were determining ideas of the Renaissance town planning. This rationalization trend was reflected in specific patterns of town layouts. Zucker (1959, p.100) explains this process as follows;

"The integration of structure and function, the increasing consciousness of spatial relations which was to dominate architectural design from the very beginning of the Renaissance … became also the basis of town planning. Plans for the

surrounding of individual structures or for whole new quarters of a town were designed as 'composition'."

The planned organization and regular shape was extended also to the layout of streets and squares. Squares developed from medieval beginnings and newly planned during the Renaissance era had differences in their physical images. Although there are differentiations in each town, "man-made order and the attempts to establish definite spatial limits are the basic rule of all these Renaissance squares" (Zucker, 1959, p.140). According to Gallion and Eisner (1986, p.43), the form of the Medieval pattern 'did not change but the structure is decorated with facades made up of classic elements'.

"The square is unified, its single elements tied together by all possible architectural means, and here it is the space which is articulated" (Zucker, 1959, p.141). Therefore the single 'volumes' that environs the square supported its 'spatial unity' by *continuous* arcades and other connecting architectural elements.

The search of the ideal town during the Renaissance was the main effort of the predecessors of the era. Italian theories and utopias are the leading ones that had been effective on the development of towns and squares as well.

For instance Alberti, one of the theoreticians of the era, introduces the "exact proportions for the square and the height of its surrounding houses" (Zucker, 1959, p.101). His suggestion of "the central domed building as the chief monumental structure of a town" and "the concept of centralized square with radiating streets" later became the symbol of the Renaissance architecture (1959, p.101).

Continuously Filateres suggested in his ideal town called Sforzinda, which is a regular octagonal in shape, a central square and eight streets radiating from it. The setting of the square such as the 'isolated tower in the center', and the major buildings 'cathedral and ducal palace' that are the parts of the square's periphery, became the determining features of the forthcoming plans 'from Italy to Washington D.C., and Le Corbusier's Ville Radieuse' (Zucker, 1959, p.102).

These theoretical concepts are realized by the designs of the gardens and parks in the 16th century. "The axial organization" and "the patterned definite designs" common in these gardens and parks interconnects garden planning with town planning regarding the arrangement of 'geometrically shaped flower beds exactly like city blocks with squares in between' (Zucker, 1959, p.106).

First realization of the utopian ideas was in Palma Nuova. "The central square is the focus of a strictly radial organization of the town"; the single architectural units such as the church, main square, streets and blocks, were structured as 'elements of an identical order' (1959, p.108) (Figure 3.9).

Figure 3.9: Palma Nuova (1593 Plan by Vincenzo Scamozzi [1552-1616]), Source: Darvas, 2007, p.187.

In Palma Nuova, 'the volume of houses, which line the streets and surround the squares, balances the framed open space: *form of mass* against *form of space*' (Zucker, 1959, p.107). The star shape plaza in the center would later inspire the plazas created in the 17th and 18th centuries.

Italian plazas reflect mainly the characteristics of the Renaissance plaza concept, namely; the aim of creating 'spatial unity', use of arcades in order to improve the unity of the facades enclosing the plaza and the existence of monuments , fountains, flagpoles for organizing the plaza space (Zucker, 1959, p.110-111). However there are other examples of plaza organizations throughout the world.

For instance, main feature of the French projects in the Renaissance era was the aim of creating 'elaborate symmetry' that designates the increasing focus on 'power' (Figure 3.10) (Zucker, 1959, p.120; Gallion & Eisner, 1986, p.44). In Germany one of the initial projects: Stadt eines Königs (town of a king), presented a 'quadrangular periphery with the castle in the center of a quadrangular square' (Figure 3.10) (Zucker, 1959, p.120).

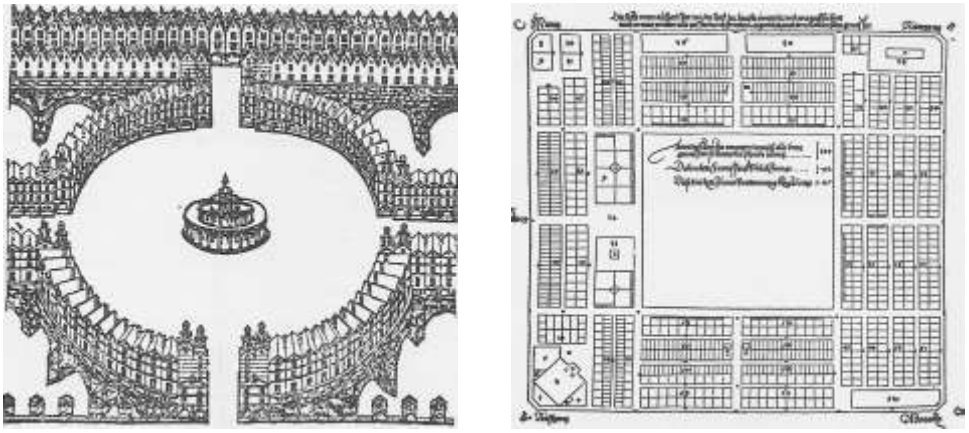


Figure 3.10: Elaborate symmetry in French projects (left); Quadrangular shape of a square in a German Project (right), Source: Zucker, 1959, p.121-122.

3.1.3.2 BAROQUE CITY

The era which includes the stylistic developments of the 17th and 18th centuries is accepted as *Baroque*. The baroque squares visualizes the spatial understanding of the baroque city planning. It is an era of "grandeur images" regarding the kings' orders of building super-scale palaces, gardens and plazas in order to emphasize their power and authority over the citizens (Zucker,1959, p.144; Gallion and Eisner, 1986, p.44-46). Open spaces in this era, are laid out for visual and ceremonial effects (Choay, 1969, p.18).

The Michelangelo's Piazza Campidoglio, in capital Rome is one of the early Baroque examples that best represents the plaza concept of the period. This square is topographically isolated however it has no religious elements as did the previous examples in ancient Greece: the acropolis or the medieval cathedral have. It represents a 'civic institution' (Zucker, 1959, p.145-146).

The square has a trapezoidal open space surrounded by two opposite-facing buildings, the present Capitoline Museum and the Palazzo dei Conservatori with an 'oblique angle' to each other, and the Palazzo dei Senatori in the middle. This perspective perceived by the viewers approaching to the plaza helps to monumentalize the Palazzo dei Senatori, which is the 'typical baroque trait'. The two-dimensional pattern used in Piazza dei Campidoglio for unifying various elements such as topography and the irregular shape of the site had also helped to create this perspective (Trancick, 1986, p.65; Zucker, 1959, p.146) (Figure 3.11).

Figure 3.11: Michelangelo's Piazza Campidoglio, Source: Capitoline Museum, http://en.museicapitolini.org/sede/piazza_e_palazzi, last accessed data: 16th August, 2010.

The steps called Cordonata in front of the Palazzo dei Senatori, defines 'the shift of the hill's main axis towards the modern city, and away from its ancient position facing the Roman Forum' (Capitoline Museum Guide, 2010) (Figure 3.12).

Figure 3.12: The steps: Cordonata, Source: Personal Archive, 2006.

One of the architectural elements that Michelangelo had used in this square was the arcades. Other than its function in closed Renaissance squares, here arcades function as accelerators of the movement towards the background structure (Zucker, 1959, p147).

Piazza di Campidoglio best expresses the 'transition from one concept to the other': from Renaissance to Baroque, being urbanistically the most significant urban interior of the era. (Trancick, 1986; Zucker, 1959; Norberg-Schulz, 1979) Here in this square the baroque concept of the 'dynamic motion in space' is introduced. In this respect Zucker (1959, p.148) evaluates Michelangelo's study as such:

> *"Michelangelo envisioned the piazza di Campidoglio as a monumental stage set and employed all artistic means to suggest movement into depth and to create the impression of gradually increasing volumes which frame the space in between."*

The movement is directed by individual architectural elements and their numerous spatial relationships between each other. These architectural elements are the direction of the incoming streets, the position of monuments and fountains, differences in level, the fluctuating building lines and staggered volumes of surrounding structure (Zucker, 1959, p.233).

The 'synthesis of enclosure and directed movement' is visualized by the oval paving pattern between the buildings. Using such an elliptical paving pattern a stable center to the plaza is provided (Norberg-Schulz, 1979, p.152; Trancick, 1986, p.65).

St. Peter's Square (Piazza San Pietro) by Bernini (1658-77) in Rome is the greatest example of the late baroque squares. The square composed of a 'monumental colonnade which delimits an oval space' (Norberg-Schulz, 1979,p.152).

Figure 3.13: St. Peter's Square Plan (left), Source: Zucker, 1959, plate 48-A;
St. Peter's Square (right), Source: http://saintpetersbasilica.org/Exterior/Square/Square.htm, last accessed data: 16th August, 2010.

'Roman Baroque' is defined as the Baroque initiated by Michelangelo. It put accent on the spatial consciousness and conceptualizes space as 'free-flowing' process with gradual increase of visual elements: final destinations. Single architectural units takes place close to each other constituting. the spatial unity which is stronger than the one in Renaissance era (Zucker, 1959, p.233)

On the other hand, French classicism takes place with 'conscious, regular square design based mostly on geometric figuration, a rectangle, a square or a circle'. 'The axis' as the 'backbone of the spatial structure' predominates square in this period. In this respect, squares are integrated into an axial organization and became a part of the axis (Zucker, 1959, p.234-235) (Figure 3.14). In contrast to Roman baroque, the carefully shaped and balanced plazas did not suppose any movement but implies rest.

18th century square was not a closed one as in the 17th century; they are 'opened and less confined' and yet the major aim was 'to create and organize the best possible intra-urban integration between the square and its surrounding quarters' (Zucker, 1959, p.192; Gallion & Eisner, 1986, p.46).

Due to the general tendency of 'favoring rationalization of the creative process and its reglementation by academic rules,' French style penetrated the entire Europe in the 18th century. The "French space concept and the 'places royale's of France, as well as the architecture of Versailles" had been copied and imitated all around Europe (Figure 3.14). Italian style had reached limitedly to Austria and southern Germany (Zucker, 1959, p.195).

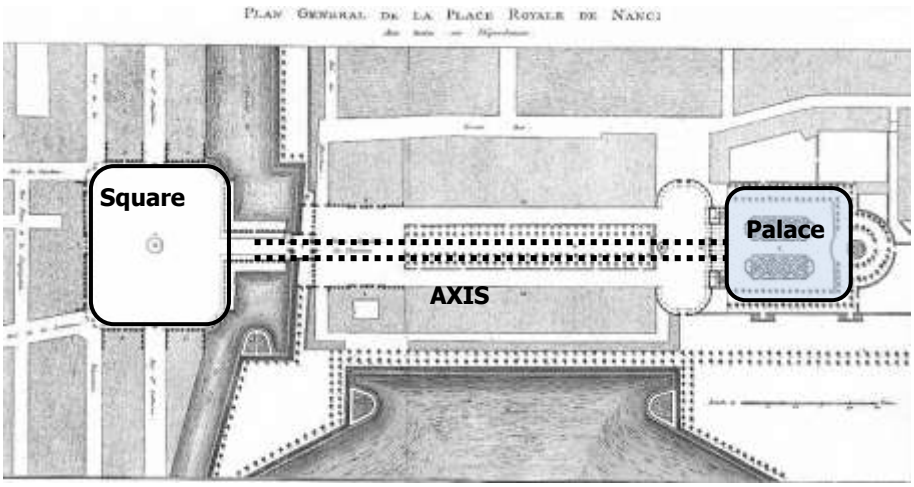


Figure 3.14: General plan of Palace Royale; (square integrated into the axial organization), Source: Zucker, 1959, plate 70-A.

3.1.4 19TH CENTURY CONCEPTS

It is the Industrial Revolution that has labeled this period. It brought a brand-new perspective in the field of urban planning which completely differs from the previous approaches. For instance "new agglomerations are formed, on a grid-iron plan – particularly in the United States"; and at the same time the "Old World" had revolutionary changes in both spatial and mental order (Choay, 1969, p.8). Due to the emergence of industry, the urban area has become a part of the industrial production together with the labour class who searches for housing; and yet this configuration induced "the

emergence of new physical formations and urban design approaches" (Günay, 1999, p.126).

Choay (1969) studied the design principles set forth in the 19th century under the titles of: 'Regularization' which she exemplifies through Haussmann's implementations; 'Progressist Model' that she argues "looked to the future and inspired by a vision of progress"; against the progressist model she introduces the 'Culturalist Model' which "inspired by the vision of a cultural community" and finally she ends up with the 'Garden City' as "the last and most influential utopian models to come out of the 19th century".

In this section, 19th century plaza concepts will be reviewed with respect to the categorization in Choay's (1969) study.

3.1.4.1 REGULARIZATION

The ideology of 'regularization' is best identified by analyzing the Haussmann's implementations in Paris while he was the 'prefect' of the city. After his studies about Paris within the context of 'time and space', considering the axes and poles of the city, he understood that "a city, like any other organism, evolves in time, and that the view of the observer must therefore be at once prospective and retrospective, in order to safeguard its traditional dynamics as well as those orienteering the future" (Choay, 1969, p17).

Haussmann aimed to divide the city in north-south and east-west directions in order to assemble these points and ensure the 'direct communication' among them (Figure 3.15). Haussmann primarily concentrated on the design of a "circulatory system" and "system of ventilation". He organized a transportation network composed of "through streets which have no significance in themselves but are essentially a means of connection" (Choay, 1969, p.17-18). In his hierarchical system each branch was situated about a plaza which works as a "traffic node" instead of constituting a space on its own. In Haussman's words, they were "nodes of relation" (Choay, 1969, p.18). And thus the 'enclosed plaza' understanding of the previous periods had been demolished.

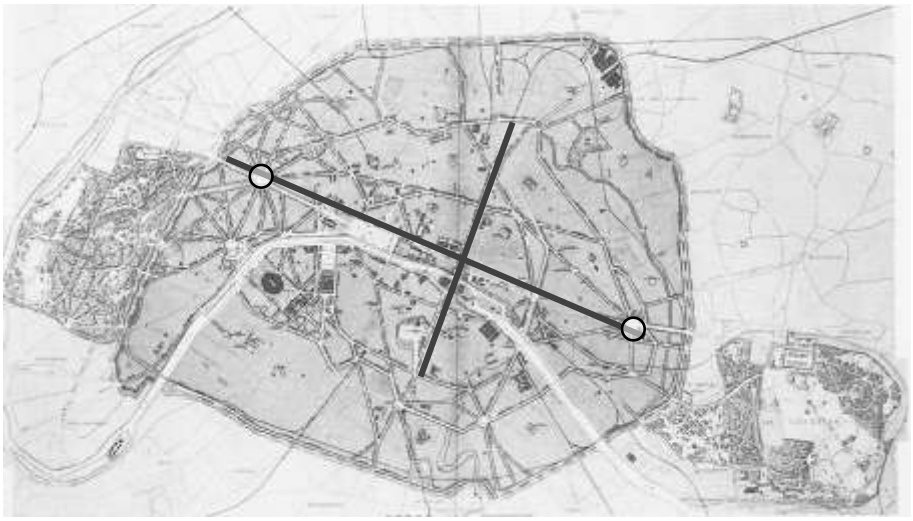


Figure 3.15: Haussmann's transformation of Paris, Source: Choay, 1969, p.52.

The introduction of regularization approach, in last decades of the 19th century, brought about vigorous impacts throughout cities. Haussmann's regulatory approaches can be apparently seen in Ottoman cities as well, due to the rise of capitalist- industrialist order (Gül, 1993, p.71).

Another aspect of the Haussmann's plans was the "sanitation through creation of voids". He made such a wide-scale demolition constituting his notion of open space (Freiflach). In his ideology, open spaces are laid out in order not to be filled in. Open spaces had lost their visual prosperity (Choay, 1969, p.18). Although Haussmann's demolition had certain negative sides, it had positive sides as well, such as the organization of the planted areas in four categories: promenades (like Champs-Elysées), squares, public gardens and suburban parks (Choay, 1969, p.19).

Aesthetic aspect of Haussmann's studies, which was not his primary concern, was created in a Neo-classical sense (Choay, 1969, p.19). Nevertheless his work had been impressive for some of his contemporaries. Not as much as Haussmann's demolition however some smaller-scale efforts took place throughout Europe in this period in order to create openings in the old urban fabric, for instance in London such openings were made: Trafalgar Square, New Oxford Street, Shaftesbury Avenue, Charing Cross Road, Kingsway (Choay, 1969, p.21).

3.1.4.2 PROGRESSIST MODEL

The progressist model is the most significant in planning, as it is being the founder of modern urban space concept. With a socialist point of view, Robert Owen (1771-1858) and Charles Faurier (1772-1837) had great contributions to the development of this model.

The progressist model argues about a 'hygienic city' that concentrates on the separation of functions and geometric organization of 'air, sun and greenery' (the symbols of progress) (Günay, 1999, p.127; Choay, 1969, p.32).

Robert Owen had designed a model town for 1200 inhabitants, with housing areas located around a central planted square area and 400 to 600 hectares of land in the periphery (Figure 3.16). "These small communities dot the countryside like Faurier's *phalanstéres* and the various versions of the built-up communautary idea" (Choay, 1969, p.32) (Figure 3.17 and 3.18).

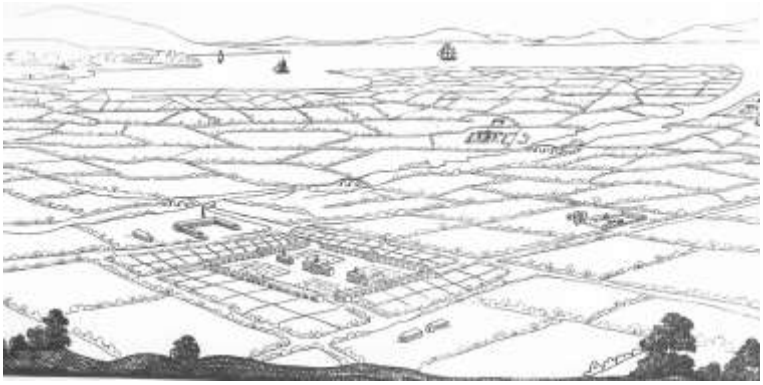


Figure 3.16: Robert Owen's prospectus for a group of Owentie villages, Source: Choay, 1969, p.79.

Figure 3.17: A *phalanstére* organized according to Faurier's theory, Source: Choay, 1969, p.82.

Figure 3.18: A project for a community after the system of Communaute, based on equality, liberty, fraternity, unity – the eternal principles which may result in happiness, Source: Choay, 1969, p.81.

Discontinuous and grouped organization of urban systems was the dominant character of this period that constitutes a basis for the separation of functions (which zoning originates from) in order to increase the efficiency and productivity. Housing facilities are separated from work and recreation in all these plans (Choay, 1969, p.32).

The main aim of preserving pedestrians from bad weather conditions in sheltered passages such as Faurier's street-gallery, had negative effects on 'empty spaces and greenery' and caused a reduction in the significance of the open spaces. And thus, it leads such "a loss of urban character" in the progressist model (Choay, 1969, p.98).

The progressist model gets through a 'new phase' at the end of the 19th century. In this period Soria Y Mata (1844-1920) had developed the idea of *the linear city (La ciudad lineal)* (1882) (Figure 3.19). Rapid urban transit was the basis of the city. Collins (1968) stated that he was "the first person in modern times to evolve a planning method based primarily on the transportation of physical objects and the transmission of public utilities." (cited in Choay, 1969, p.100).

Figure 3.19: An ideal linear city of the Soria type, Source: Choay, 1969, p.84.

Soria Y Mata argued about mixing functions; putting the rapid transit to the center together with urban infrastructure systems, gardens and public buildings (for fire, sanitation, health, police, etc.) and in the end resolving "all the complex problems that are produced by the massive populations of urban life" (Choay, 1969, p.100). Space in the linear city had the similar features of the progressist model, and as a result it is "standardized, open and functional" (Choay, 1969, p.100).

Tony Garnier (1869-1948) had designed the *Industrial City (Cité Industrielle)* (1889-1901) the "new conception of space", in a different setting, "with stricter zoning and less abstract structure" (Figure 3.20). Instead of being 'universal', he chose a specific place and limited population (35000 inhabitants). Industrial establishments and the rest of the city were separated into discontinuous zones with greenery in-between them. Public services (administrative buildings, sports and entertainment centers etc.) were located in the center, while the residential areas and schools were located in the periphery (Choay, 1969, p.101).

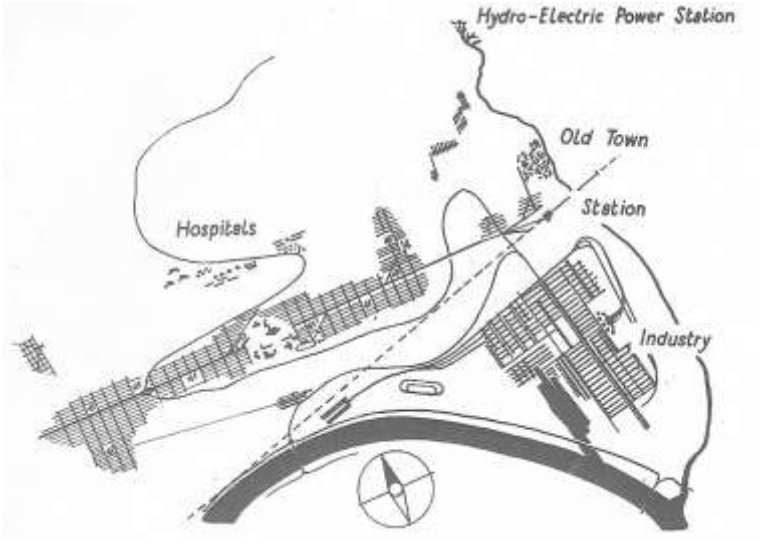


Figure 3.20: Schematic layout of the Industrial City by Tony Garnier, Source: Choay, 1969, p.86.

3.1.4.3 CULTURALIST MODEL

Culturalist model, other than the progressist model, argues about integrating functions, concentrating on the "culturalist urban space of spontaneous urban patterns" (Günay, 1999, p.127). They have adopted a retrospective approach and created a new form from 'nostalgia'. 19th century European thought examined the "beautiful, organic wholes of the past" (Choay, 1969, p.102). Morris defines the culturalist city as a 'small', 'concentrated' city with 'well-defined limits' which is significant because of the "variety, irregularity and asymmetry" in it (cited in Choay, 1969, p.103). In this model "organic beauty" is as important as the "hygiene" in the progressist model.

Nonetheless the culturalist approach, in a sense was unable to "acknowledge the irreversible mutation which the industrial revolution" had caused (Choay, 1969, p.103-104).

Camillo Sitte (1843-1903), on the other hand, becomes the predecessor of the model with his book "City Planning According to Artistic Principles" (1965) leading the realization of the culturalist model. Sitte provided aesthetic principles as the basis of the good form (Sternberg, 2000; Choay, 1969).

Sitte argued that city planning should not only be technical, but also artistic (Sitte, 1965, p.3-4). And he criticized the production of public spaces as becoming "impersonal and

mechanistic projects" which "overtake the formerly organic city" (Sternberg, 2000, p.268). Sitte developed 'a model of spatial organization based on systematic analysis of the compositional elements' took place in the preindustrial city (Choay, 1969, p.104). He analyzed the classical, medieval and baroque spatial organization.

During his analysis he concentrates on the urban plaza as the major concern. He found the basic features of these spatial organizations as such: continuity in the constructed elements; meaningful buildings provided that in relation to each other; enclosure; diversity; asymmetry; and irregularity (Sternberg, 2000, p.269-270; Choay, 1969, p.105).

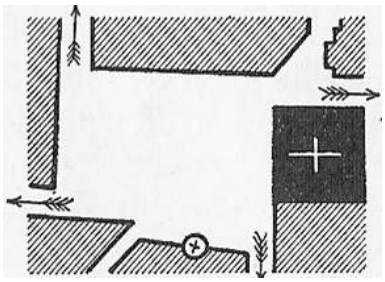
Sitte emphasizes the significance of the plazas for the public life and their relationships with the constructed elements around in order to sustain the unity of the site (Sitte, 1965, p.13-14). Furthermore Sitte (1965, p.16) wrote:

> *"… in the Middle Ages and the Renaissance there still existed a a vital and functional use of the town square for community life and also, in connection with this, a rapport between square and the surrounding public buildings. Meanwhile in our day plazas are, at most, used as parking lots."*

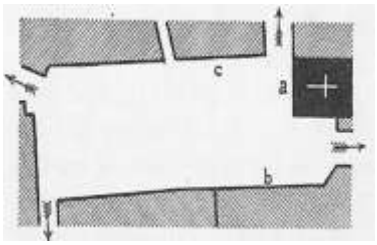
Enclosure is another point that Sitte made. According to him, enclosure is a prerequsite for an open space to become a plaza. He criticizes the plaza understanding of that period, being inadequate from the artistic point of view such as, 'remaining a building lot, bordered by four streets, unbuilt'. (Sitte, 1965, p.32) The plaza should ensure a continuous physical enclosure, as opposed to 'the modern plaza crossed by avenues' (Sternberg, 2000, p.269). He ilustrates a number of plazas of the ancient times with streets in a turbine system (Figure 3.21).

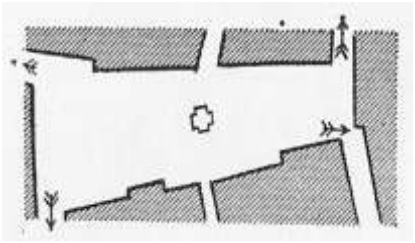
The criteria for the "solid-void distribution" are irregularity and asymmetry. According to Sitte (1965, p.24) monuments, statutes and fountains should be located at the edges of the plazas, away from the traffic, as it was in the past.

Although Sitte's model embraces an aesthetic point of view, regarding also the physical and psychological well-being; it fails to take into consideration of the 'modern city and its complexity'; in this respect, the model remains applicable "in neighbourhoods, on the level of the everyday activity of the pedestrian" (Choay, 1969, p.106).



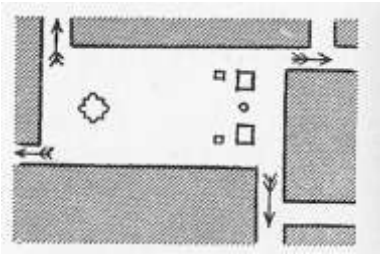
a. Piazza del Duomo in Ravenna: that Sitte defined as the purest of such plazas



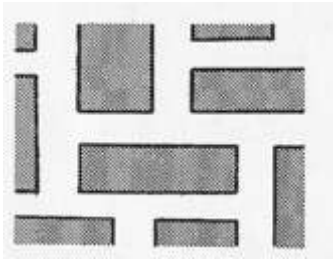


b. Piazza St. Pietro in Mantua: c. Neuer Markt in Vienna

*streets entering each plaza are laid out obliquely preserving the sense of enclosure



d. A simplified suggestion of Sitte for modern conditions



e. A modified rectangular layout of city blocks to enable such plazas in modern city

Figure 3.21: Camillo Sitte's Turbine plazas, Source: Sitte, 1965, pp.34-35,138; adapted from Sternberg, 2000, p.269.

3.1.4.4 GARDEN CITY MODEL

Ebenezer Howard (1850-1928) is the founder of the garden city model. In his study, Howard had sociological and public health considerations; and therefore aimed at integrating 'social advantages of the city' and 'the healthy conditions of the rural areas' (Krier, 1979; Choay, 1969).

In his proposed city, there is an autonomous community living in units of 'reasonable size' which is surrounded by a 'rural greenbelt' (Krier, 1979, p.64-65; Choay, 1969, p.107). Howard created a system of interconnected garden cities as; factories and the agricultural activites located in the periphery; public services took place in the center around a park and if the population of a garden city grew over the maximum capacity, the new nucleus and than the new garden city would be developed connected to the other cities with a rapid rail transit (Choay, 1969, p.107) (Figure 3.22 and 3.23).

Although Garden city is one of a particular model; it has similarities both with progressist model and culturalist model. On one hand, the concept of 'country in the city', the emphasis on the 'physical hygiene', seperation of functions and use of rapid transit remind of the progresist model. On the other hand, cities' well-defined limits, promoting 'variety in space and buildings' and the urban character of the city center as in medieval towns are what remind of the culturalist model (Choay, 1969, p.107-108).

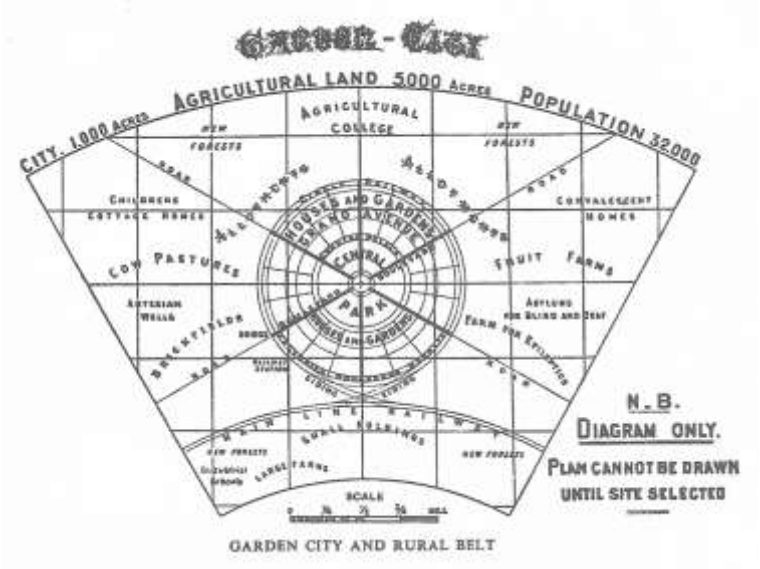


Figure 3.22: The Garden City of Ebenezer Howard, Source: Choay, 1969, p.91.

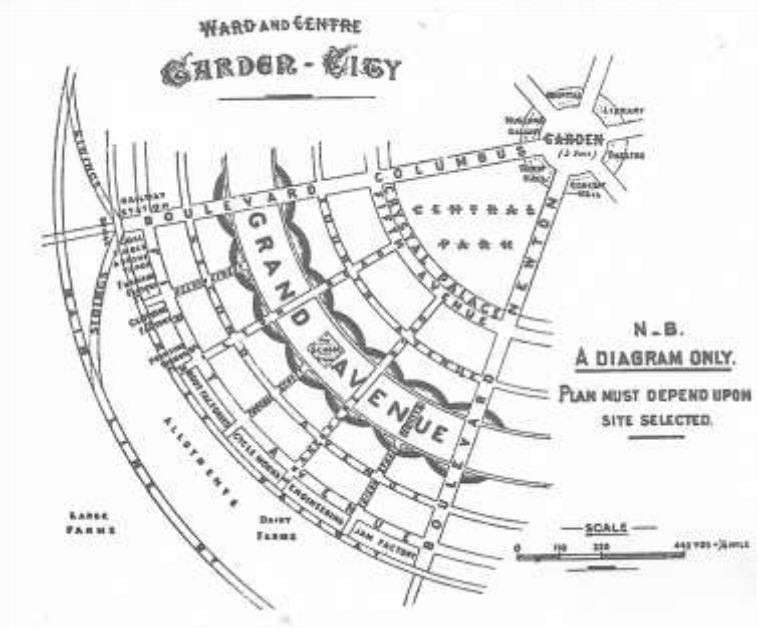


Figure 3.23: A sector of Howard's Garden City in a schematic plan, Source: Choay, 1969, p.91.

3.1.5 MODERN CITY CONCEPTS

The era that is called "modernism" in architecture and "comprehensive planning" for planners had begun with the garden city experiences mentioned previously. This section will focus on the developments mainly in the 20th century, regarding the modern city space concepts.

In the 19th century, cities evolved economically and politically by the means of industrialization, but on the other side they come up against the threat of "congestion, disease and misery" (Madanipour, 1996; Günay, 1999; Gehl, 1987). Modernist design that ruled the 20th century had fundamentally dealt with the technological improvements of the era; since the modernists supposed these technical developments will dissolve the problems caused by industrialization (Madanipour, 1996, p.188).

Le Corbusier's idea of town planning lead the 20th century cities' outlook. His plan for "*A Contemporary City Of Three Million Inhabitants*" exhibited in 1922 in Paris, introduced his four basic principles: "to de-congest the centre of cities; to augment their density; to increase the means for getting about; and to increase parks and open spaces" (Le Corbusier, 1971 cited in Madanipour, 1996) (Figure 3.24 and 3.25).

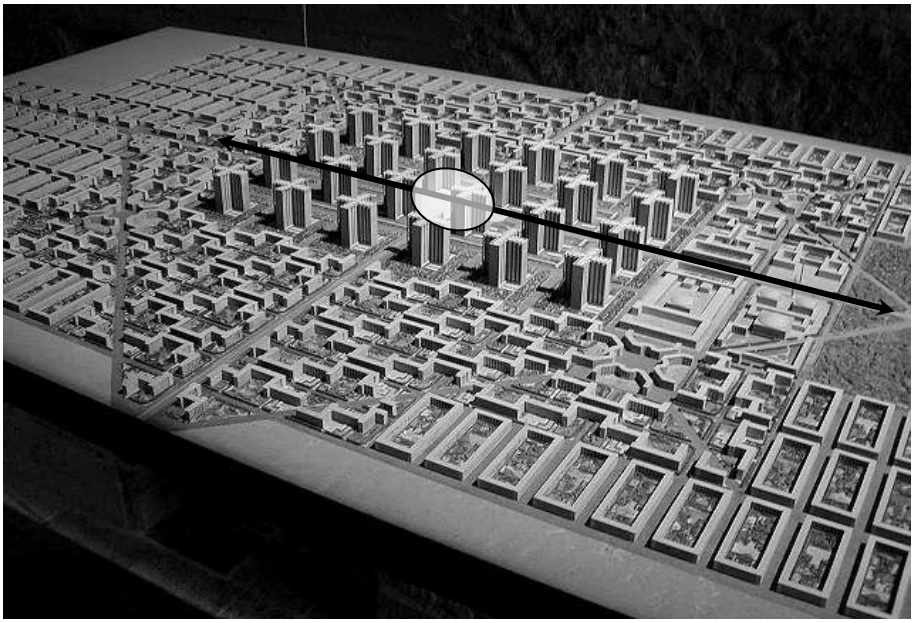
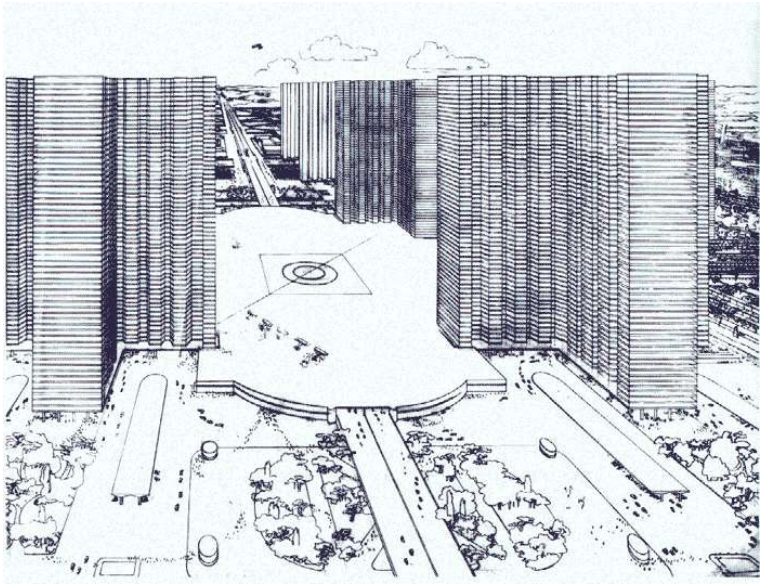


Figure 3.24: A Contemporary City Of Three Million Inhabitants,
Source: http://www.wikimir.com/plan-voisin, last accessed data, 28th August, 2010.



Fgure 3.25: Open public space in "A Contemporary City Of Three Million Inhabitants", Source: http://www.newworldeconomics.com/archives/2008/081008.html, last accessed data: 28th August, 2010.

Le Corbusier had substantially influenced from the simplistic forms and functionalist approaches of the engineers (Madanipour, 1996, p.190) as could be understood from his following expressions about the center of Paris when his model is applied (the Plan Voisin, Figure 3.26) (Le Corbusier, 1971, pp.280-281);

> *"…instead of a flattened-out and jumbled city such as the airplane reveals to us for the first time, terrifying in its confusion…our city rises vertical to the sky, open to light and air, clear and radiant and sparkling. The soil, of whose surface 70 to 80 per cent has till now been encumbered by closely packed houses, is now built over to the extent of a mere 5 per cent. The remaining 95 per cent is devoted to the main speedway, car parks and open spaces. The avenues of trees are doubled and quadrupled, and the parks at the foot of the sky-scrapers do, in fact, make the city itself one vast garden."*

Figure 3.26: Plan Voisin, Source: Trancick, 1986, p.28.

"Sun, space, greenery" (Le Corbusier's three joys of urbanism), ventilation (air) and functionalism became the major components that constitutes the modern space concept (Günay, 1999, p.148; Gül, 1993, p.79; Gehl, 1987, p.48; Jencks, 1978, p.9).

A group of architects and planners called CIAM (International Congress for Modern Architecture) had their first meeting in 1928, clarifying "the need for a new concept of architecture answering to the spiritual and material requirements of life today" (Le Corbusier, 1967, p.28 cited in Günay, 1999, p.1). They elaborated these visions and later in 1933 they presented them as the Charter of Athens.

CIAM saw town planning as "the organization of the functions of collective life" which are: "dwelling, work, recreation and transportation" (Madanipour, 1996, p.190, Günay, 1999, p.159). The Charter offered the reshaping the functions according to the Le Corbusier's approaches in his plans.

For instance, the dwellings would be located "in the best sites", built high rise with modern technology, far from the traffic congestion. Slum clearance was recommended to create open spaces that would be used for the recreational facilities. Working areas were to be separated as industrial zones (with green belts between housing areas) and central business districts (directly connected to the residential and industrial areas). A "new street system" was offered depending on the type and the speed of the movement, so that the traffic issues would be dissolved by the "universal use of motorized transportation" (Madanipour, 1996, p.191).

Post-war period after the Second World War had provided an appropriate medium for the development of this Modern Movement throughout the world, especially in Europe who is already heavily polluted by industrialization (Madanipour, 1996, p.191). This new type of urban pattern providing direct access to light and air with standardized hygienic conditions reshaped the cities (Gehl, 1987, p.48).

In order to be functional modernists 'gave priority to cars and fast movement across urban space' diminishing the interrelation between open spaces and the surrounding structures (Madanipour, 2003, p.142). In this period streets and squares were extracted from the plans of the new projects (Gehl, 1987) and thus they were about to be sacrificed 'in favor of vast open spaces' (Madanipour, 2003).

Modernists put less emphasis on the historical public spaces (Madanipour, 2003, p.142), they ignored the connections with the past and only looked towards the future

(Madanipour, 1996, p.194). They mainly focused on the production of large open spaces 'for hygienic and aesthetic reasons' loosening their relationships between the other parts of the city (Madanipour, 2003, p.142). Modernists supposed that the green areas in-between high-rise apartments would serve as recreational activity places enriching the social lives of the people (Gül, 1993, p.80). However they misevaluated the social aspects of planning, moreover they disregarded the 'socio-spatial context of the urban fabric' (Madanipour, 1996, p.142; Gül, 1993, p.80). In the end public spaces had lost their functions (Trancick, 1986, p.26).

In Le Corbusier's plan for the French town St.-Dié, public spaces had greater emphasis than in the previous plans (Mumford, E., 2000, p.152; Giedion, 2002, p.543) (Figure 3.27). However it does not present an enclosed space with defined edges, instead, it presents "an open platform with free-standing buildings" (Mumford, E., 2003, p.152) "as icons" without any "sequence or hierarchy" (Trancick, 1986, p.64).

In line with the functionalist approaches in modernist era, suburban developments emerged due to the increasing use of car. This type of a dispersal in the cities changed the character of traditional street and square (Gehl, 1987, p.191; Krier, 1979, p.83). Their functions are "replaced by shopping centers" (Trancick, 1986, p.103).

Trancick (1986, p.163) criticizes the squares produced in the modernist point of view in case of Washington, as being inhuman in scale and discouraging people to use it. He claims that the monumentality of the square contrast with the users' daily life and needs.

To summarize, modernists put emphasis on the cars, high-rise buildings, order and geometry; they separated urban functions (work, recreation, housing etc.) and neglected the historical background and social context, therefore the meaning of streets and squares are lost (Krier, 1979, p.83; Madanipour, 1996, p.194).

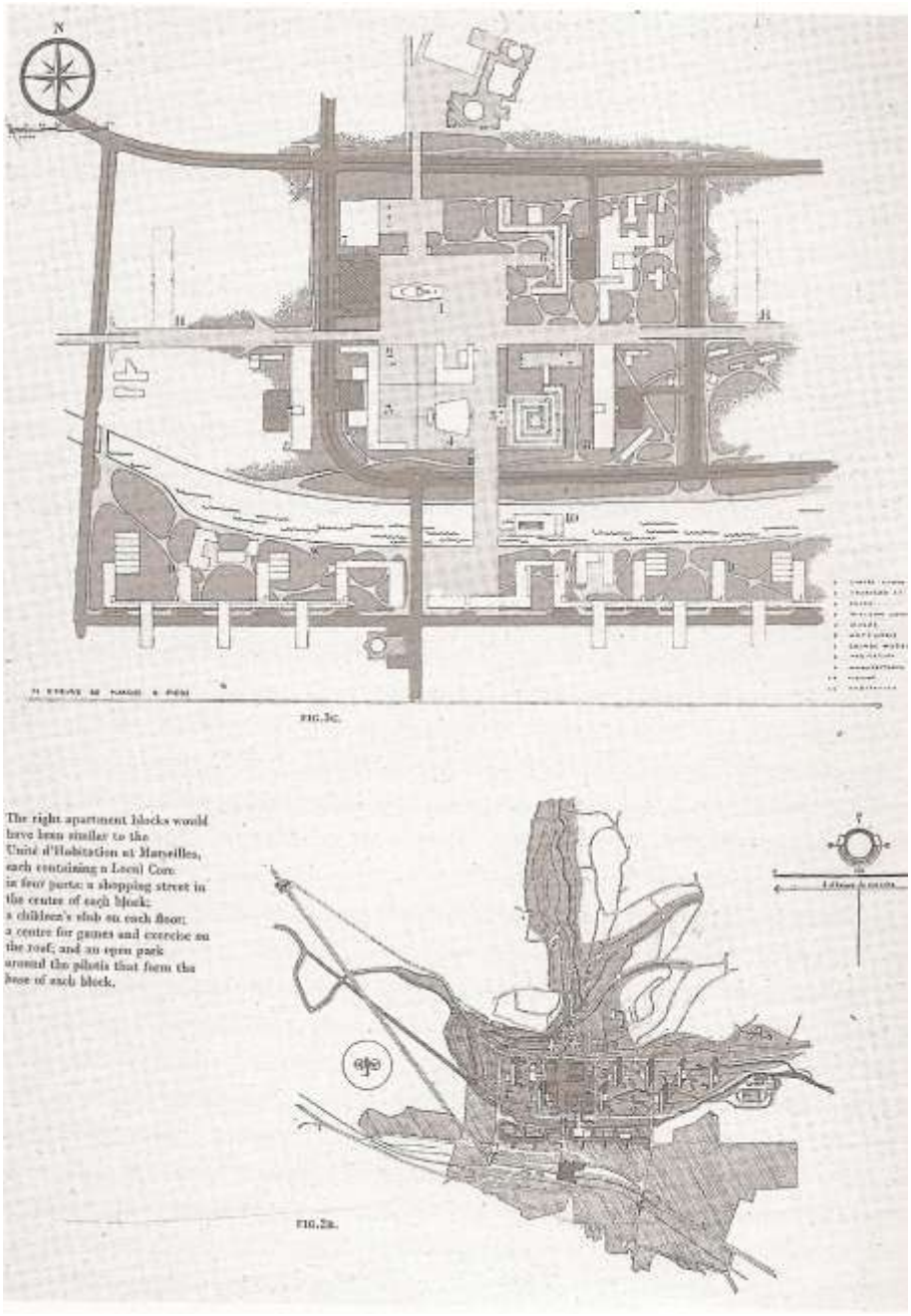


Figure 3.27: Le Corbusier's Plan of the civic center for French town St.-Dié, Source: Mumford, E., 2000, p.152.

3.1.6 POST-MODERN CITY CONCEPTS

Since the late 1960s, the aim of creating cities in "modernist images" had been left. Post-modernist approaches emerged as a 'collection of reactions' developed against modernism (Madanipour, 1996, p.194).

Postmodernism has numerous definitions. Dear (1986) put forward three meanings of postmodernism. According to him, first meaning has connections with architectural style of popular consumption and in addition "historicism, straight revivalism, neo-vernacular, ad hoc urbanism, metaphor and metaphysics, and radical eclecticism" comes about. Second meaning deals with deconstruction method of postmodernism against the rigid approaches of modernism. And thirdly he sees postmodernism as "an epoch of transition, as some kind of radical break with the past".

On the other hand, Relph (1987, p.213) defines postmodernism as 'self-conscious and selective revival of the elements of older styles' similar to Dear's (1986); but he also adds that it is not 'simply a style but also a frame of mind' (cited in Dear & Flusty, 1998, p.54). Correlatively Jameson (1991) points out, postmodernism besides its aesthetic concern, brought about a 'significant change in society' (cited in Madanipour, 1996, p.193). Relph (1987) identifies postmodern town-scape as more complex, elaborative and handcrafted than modern city-scape and he puts the elements of the postmodern town-scape as such (cited in Dear & Flusty, 1998, p.54):

> *"-quaintspace (a deliberate cuteness)*
> *-textured facades (for pedestrians, rich in detail, often with an "aged" appearance)*
> *-stylishness (appealing to the fashionable, chic and affluent)*
> *-reconnection with the local (involving deliberate historical/geographical reconstruction)*
> *-pedestrian- automobile split (to redress the modernist bias toward the car)*."

Starting from 1970s, with the economic crisis, the idea of 'redevelopment' in the 20th century modernism had replaced by the ideas of 'conservation, improvement and regeneration of the existing urban fabric' (Madanipour, 1996, p.192).

In the first half of the 20th century, with the increase in car addiction, cities faced the growing hegemony of suburbs which led the fragmentation of the city centers and thus destroyed the 'fine streets and squares' of the towns (Moughtin, 2003, p.278). In this

respect, postmodernism put forth a new understanding of aesthetics to re-attract people to the city centers (Madanipour, 1996, p.192). For postmodernists, perceptions of the users are now as vital as the architects (Jencks, 1990, p.7).

Madanipour (1996, p.194) summarizes the design features of the postmodernist era as being the "reversal of what modernist design is about". He points that, postmodernists focus on the minor modifications in parts of the cities, "on the visible places and on their meaning and vitality"; promote "public participation in the process of urban design"; consider "diversity and difference"; offer mix-use for vital urban places; see city as "historical and spatial continuum" therefore "barrow from historic periods" (referring to its eclectic style); care about the social context (in which design takes place); for the last and most importantly postmodernists "encourage pedestrian movement" and "control on cars in city space"; and finally they argue about going back to the "city of streets, squares and low-rise buildings".

As a reaction to suburbanization and fragmentation of the city centers 'micro-urbanism' and the 'small town paradigm' have emerged (Madanipour, 1006, p.201). The trend of micro-urbanism which has been a significant movement for the last two centuries, was first represented by the garden city movement and being followed by new urbanism in the last two decades (Madanipour, 1996, p.202; Furuseth, 1997, p.201).

New urbanism is a movement which is influential mainly in United States. It is an umbrella term covering 'neotraditional development', 'traditional neighbourhood design' as well as 'neotraditional neigbourhood development' (Talen, 1999; Furuseth, 1997). New urbanism aims to 'create a greater sense of community and social interaction', by creating 'pedestrian and transit friendly environments' composed of accessible public spaces, 'mixed-use core of residential, commercial, and civic uses' (Furuseth, 1997; Duany & Plater-Zyberk, 1994; Nasar, 2003).

Peter Calthorpe, one of the significant figures in New Urbanism, defines urbanism as "diversity, pedestrian scale, public space and structure of bounded neighbourhood" (Calthorpe, 1994, xi, cited in Madanipour, 1996, p.212). Calthorpe (1994) offers a new organization for the suburban settlements as such that they need to obtain the "fundamental qualities of real towns: pedestrian scale, an identifiable centre and edge, integrated diversity of use and population and defined public space". Transit Oriented

Development model emerged on the basis of Calthorpe's scheme. Transit oriented development is "a dense, tightly woven community that mixes stores, housing and offices in a compact, walkable area surrounding a transit station" (Bressi, 1994, xxxi cited in Madanipour, 1996, p.212) (Figure 3.28).

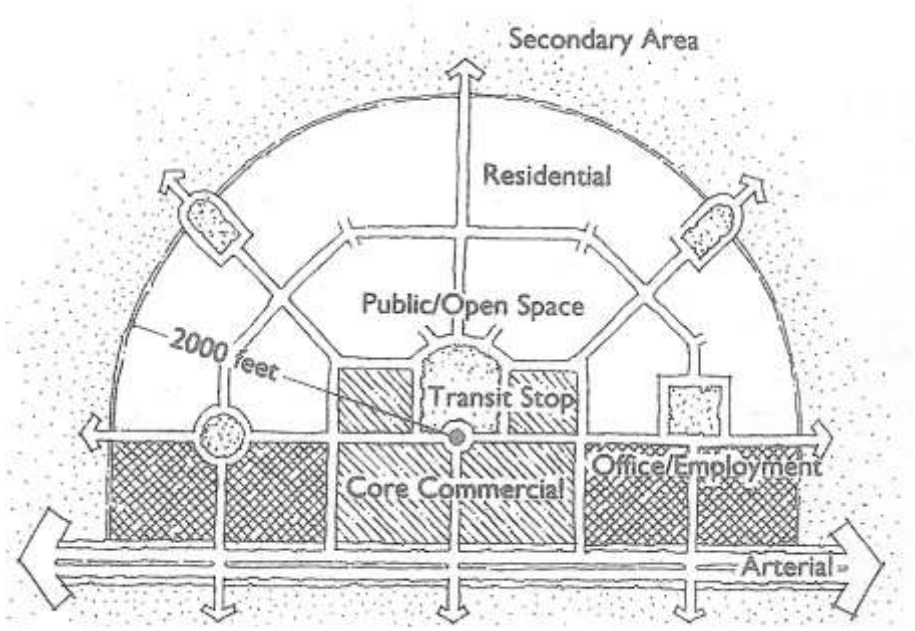


Figure 3.28: Transit oriented development, Source: Carmona et al., 2003, p.184.

New Urbanism is criticized for being 'nostalgic' and neglecting the 'social and economic realities of the modern world' (Ellis, 2002, p.268). Madanipour (1996, p.213) points out that "this theorization (promoting a social and environmental mix) takes place within a market mechanism" that can use the ideas of new urbanists "as a selling device without taking their social content too seriously". As a result neotraditional design may have problematic social consequences (Audriac & Shermyen, 1994 cited in Madanipour, 1996, p.213). On the other hand, Talen (1999) claims that new urbanism can increase social interaction through public and semi-public spaces provided and contribute to the production of a sense of community.

On the other side, a number of scholars claim that contemporary public spaces such as squares and streets which once owned by state (the public authority), are to be transformed into 'quasi-public spaces' like shopping malls due to the affects of

globalization since 1970s (Akkar Ercan, 2007; Tunç, 2003). Privatization of the public spaces in forms of shopping malls is becoming the dominating trend in the contemporary world. Providing mix-use and multi-use opportunities, shopping malls create alternative public places that increase business activities serving for 'the corporate interests rather than democratic interests' (Tunç, 2003, p.42-43).

Following Table 3.1 introduces the changing definitions of squares within different historical periods as a summary of the development of the square concept within the Western context. On the other hand, Table 3.2 presents an assessment of the Western squares during different historical periods in reference to the good urban square design criteria obtained within the framework of the previous chapter.

Table 3.1: Changes in the definition of squares/plazas within the context of Western urban space during different periods

PERIODS	DEFINITION OF THE SQUARE
Classic period	The heart /nucleus of the city (mainly for political gatherings)
Medieval era	Open spaces mainly dominated by the church and the market
Neo-classic period (renaissance & baroque towns)	Open spaces as the focus of the town being laid out for visual and ceremonial effects
19th century period	Traffic nodes at the intersection of the streets and without visual prosperity
Modernist era	Areas provided as vast open spaces (spaces between free-standing buildings) 'for hygienic and aesthetic reasons' (loosening their relationships between the other parts of the city)
Postmodern era	Places of social interaction including traditional attributes of a plaza as an open public space

Table 3.2: Assessment of the Western squares

PERIODS		GEOGRAPHICAL ASPECTS	PHYSICAL ASPECTS	PSYCHOLOGICAL BEHAVIORAL ASPECTS	MANAGERIAL ASPECTS
CLASSIC PERIOD	GREEK AGORA	-At the heart of the city -public buildings, temples, odeon, treasury, library take place around agora	-usually square or rectangular -enclosed space (with colonnades) -colonnades and particoes serving as shelters		-Political and commercial center -Shopping and meeting facilities
	ROMAN FORUM	-nucleus of the town -public buildings, senate, basilica take place around the forum	-size is proportionate to the number of inhabitants -rectangular in shape -superhuman scale		-Business and political facilities -shopping
MEDIEVAL ERA	SQUARE	-central location -church is the dominating architecture	-both in regular and irregular shapes -enclosed space (defined by buildings) -in human scale		-Market facilities
NEO-CLASSICAL PERIOD	RENAISSANCE TOWN	-central location -high accessibility (with radial street pattern opening to the square -incorporating main public buildings	-defined, enclosed space (with the use of arcades) -incorporating public art (monuments, fountains etc.) -elaborate symmetry		
	BAROQUE TOWN	-central location -church and other public buildings around	-superhuman scale -enclosed space (with arcades, colonnades and buildings) -use of public art (monuments, fountains etc.) -level changes -particular paving pattern (in order to express a stable center of the plaza) -regular geometric forms (especially in France)		-Ceremonial facilities -resting spaces in French Baroque
19TH CENTURY CONCEPTS	REGULARIZA-TION	*most plazas functioning as traffic nodes (at the intersection of the streets)	-no enclosure -no defined spaces		-sanitation -ceremonies, parades, public gatherings
	PROGRESSIST MODEL	-located at the center of the town -accessible by public transport (rapid transit) -public buildings around	-geometric organization -emphasize on natural elements (greenery, plants etc.) -shelter and protection		-hygiene

Table 3.2 (Continued)

PERIODS		GEOGRAPHICAL ASPECTS	PHYSICAL ASPECTS	PSYCHOLOGICAL BEHAVIORAL ASPECTS	MANAGERIAL ASPECTS
	CULTURALIST MODEL	-heart of the city	-enclosed, defined space (by continuous buildings) -asymmetric and irregular forms -use of public art (monuments, statutes, fountains etc.)	-pleasure giving spaces	-diversity of community activities
	GARDEN CITY	-center of the city -accessible by public transport (rapid transit)	-well-defined limits -regular geometric form -use of natural elements (gardens etc.)		-hygiene
MODERN CITY CONCEPTS			-no enclosed, defined spaces (spaces in-between free standing buildings) -simplistic forms -no edges -large open spaces -inhuman scale -use of natural elements (greenery) -access to light (*'light, air, greenery' as the keywords of the era)	-scale discouraging people to use the plaza -monumentality of the square contrasts with the users' daily life and needs	-hygiene -recreational activities
POST-MODERN CITY CONCEPTS	NEW URBANISM	-central locations -mixed-use environments -accessible by means of transport (pedestrians and public transport) *besides there are alternative public spaces: quasi-public spaces as shopping malls (NTD: neo-traditional development TOD: transit oriented development)	-pedestrian scale -human scale -defined spaces -use of natural elements	-sense of community -social interaction	-diversity of uses -shopping -recreation
	NTD				
	TOD				

3.2 TURKISH EXPERIENCES

This part of the study presents the development of squares within the Turkish context, in case of capital city Ankara considering that the changing nature and typology of public spaces of Ankara involves examples of public spaces that have been produced in most Turkish cities. It firstly introduces the period before the Republic; later concentrates on

the period after the Republic in three subsequent periods as 1923-1950; 1950-1980 and after 1980s.

3.2.1 THE PERIOD BEFORE THE REPUBLICAN ERA

The history of Ankara dates back to Roman times, in this respect, the information provided in this section of the study will be a brief evaluation of the development of public spaces within the context of squares/plazas during the period until the proclamation of the Republic.

Ankara had been a significant focal point during history in terms of both defense and accessibility because of its geographic location which takes place through important trade routes providing commercial advantages as well (Akçura, 1971; Aktüre, 1984).

Commerce was the major activity since the 14th century in the city of Ankara which is directly interrelated with the development of 'Ahi organization' (the organization where guilds and craftsmen gather for economic and social means). Ahi organization had a crucial impact on the spatial development of the cities (Aktüre, 1984). Ahi organization ruled the city until the Ottoman administration, and made the city one of the main economic centers (Ahi centers). In this respect, the 'city center' of Ankara portrayed the 'economic vitality' with its places provided for commerce and social activities such as market place, mosque, hans, fountains, bedestens (closed çarşıs), and caravanserais (Akçura, 1971; Aktüre, 1984; Tunç, 2003).

Ankara's commercial development accelerated until the 16th century. In the 16th century, city was concentrated around the open-air, guild çarşıs such as 'Tahtakale, Karaoğlan and Suluhan' where 'a single row of shops' are taking place along streets; they were 'bazaar places specialized in one product like the horse bazaar, sheep bazaar, ox-cart bazaar' (Akçura, 1971; Aktüre, 1984, Tunç, 2003). The acceleration of the economic development of Ankara diminished during the period between 17th and 19th centuries due to the changes in trade routes and capitulations (economic privileges) given to foreign traders (Akçura, 1971; Aktüre, 1984); though it was still 'an important production and commercial town of the Ottoman Empire' (Türkoğlu Önge, 2007, p.73).

With the introduction of railways towards the end of the 19th century, city had regained its economic prosperity, and the central functions expanded through Taşhan leading to the development of a new center in 'the north-western part of the old center' (Tunç, 2003, p.62). This newly emerged 'linear city-center' located between the castle and Ulus today, had diverse functions. Old center, serving for the conventional facilities, was composed of the open Bazaar places like Atpazarı, Samanpazarı, Koyunpazarı, Bedesten and its environs and the hans near the castle. New center, on the other hand, was providing functions for the newly emerged groups of Rums and Armenians (Aktüre, 1984; Tunç, 2003).

Within this framework, public spaces of Ankara, where social life takes place, in the period before the republican era (including both periods before and after the Ottoman administration) were composed of places mainly for economic activities such as previously mentioned Bedestens, hans, open bazaars and çarşıs. Mosques and hamams (Turkish bath) were also places where public gathering occurs so that these type of places were also considered as public spaces (Tunç, 2003, p.62).

Public spaces serving both for men and women were not available till the establishment of Republic (Tunç, 2003, p.63). Tankut (1993, p.251) explains this situation with the Islamic impacts. According to her, inhabitants of the Ottoman cities identified themselves primarily with being a Muslim and then being an Ottoman and finally with the neighborhood they belong. Fountains in the neighborhood, herbalist' shops, small mosques and the Quran schools were the nodes of social interaction and communication forming such a spontaneous, daily center but not a precise, central scale structure like city squares. Typical neighborhood square form was based on three elements: the mosque, the teahouse and the monumental tree or the fountain.

The introduction of city squares into the Ottoman cities dates back to the late 18th century. It represents solely the imitations of the Western urban images during modernization efforts, rather than bringing the citizens together and serving for the creation of social interaction or socialization of them (Tankut, 1993, p.251).

According to Tankut (1993, p.251), absence of such a 'tradition of urban squares' resulted with the development of Ottoman cities without a physically defined city center; and an Ottoman society without an urbanized character. On the other hand Cengizkan (2002, p.217) points out the introduction of clock towers into the Ottoman cities as significant representations and tools of the modernization.

Consequently, there was not a distinct public space taking place neither in Ankara nor in any other Ottoman cities. Instead of such places as urban squares, those bedestens, bazaars, hans and mosques were seen as major nodal points for public uses, gatherings, needs etc.

3.2.2 THE PERIOD AFTER THE REPUBLICAN ERA

The development of public spaces within the context of urban squares during the period after the establishment of republic will be evaluated in three subsequent periods, regarding the significant turning points both for the city of Ankara and Turkey.

First period is the time period starting from the proclamation of Turkish Republic in 1923 and goes until 1950. The years of 1950s are labeled with the high levels of migration from rural to urban areas throughout the country which had crucial impacts both on the spatial development of cities (especially on big cities) and features and meanings of the public spaces in these cities as well. In this respect, second period covers the years between 1950 and 1980. Third period starts with 1980s and ends up with today's approaches. The years of 1980s were denoted with the liberal policies introduced by the Özal government which was established in 1983. Turkey had moved into a new economic structure which was influential also in social and political lives. This move in the economy had structured the growth of the today's contemporary urban development.

3.2.2.1 1923-1950 PERIOD

Ankara was declared as the capital city of Turkey on 13th October 1923. Immediately after the declaration, Ankara was introduced into a tremendous growth and restructuring period in economic, social, and political terms.

Ankara as the capital of the young Republic, was intended to be a model for the whole country. Ankara meant to be the symbol of Republic considering both the political model it accepts and its concomitant vision of modernity. Within this context, the capital Ankara need to be not only serving as a symbol, but also providing an appropriate life style fulfilling all the functions that the new world concept entails (Tankut, 1993, p.44). Moreover, 'administrators of the new Republic believed that the good development of the new capital would reflect and prove the success of the new regime' (Tunç, 2003, p.64).

On the other hand, Modernity Project that the new Republican government had initiated, intended to develop 'the national identity' and 'a modern socio-cultural and physical environment' inspired by western modernity (Türkoğlu Önge, 2007, p.72). As Tekeli (2001) points out urban planning is a project of modernity within which urbanization and the realization of the modernity project is strongly interrelated. Ankara 'was to become a modern cultural environment with new institutions, socio-cultural practices and new physical landscape' which is, in totality, 'a comprehensive spatial modernity project' as well (Türkoğlu Önge, 2007, p.72-73). In this respect, administrators aimed to keep the growth of Ankara under control and provide a planned development in terms of state-sponsored practices and new building programs. Türkoğlu Önge (2007, p.73) states that 'the modernity of this project lies in the expectation that a modern public realm and the ways of a modern urban life would flourish through the proper organization of public spaces'.

The very first action for the preparation of a development plan for Ankara was initiated in December 1923. Carl Christoph Lörcher, the German architect was appointed for the preparation of the development plan (Türkoğlu Önge, 2007, p.76). The first development plan of capital Ankara prepared in May 1924 (Figure 3.29). Nevertheless, Lörcher's plan that covers only the old part of the town was rejected by the municipality regarding the design proposals about the transformation of the historical urban fabric (Figure 3.30) (Türkoğlu Önge, 2007, p.76; Tankut, 1993, p.54). The plan prepared for the newly created parts of the town was accepted because of the growing housing needs (Tankut, 1993, p.54).

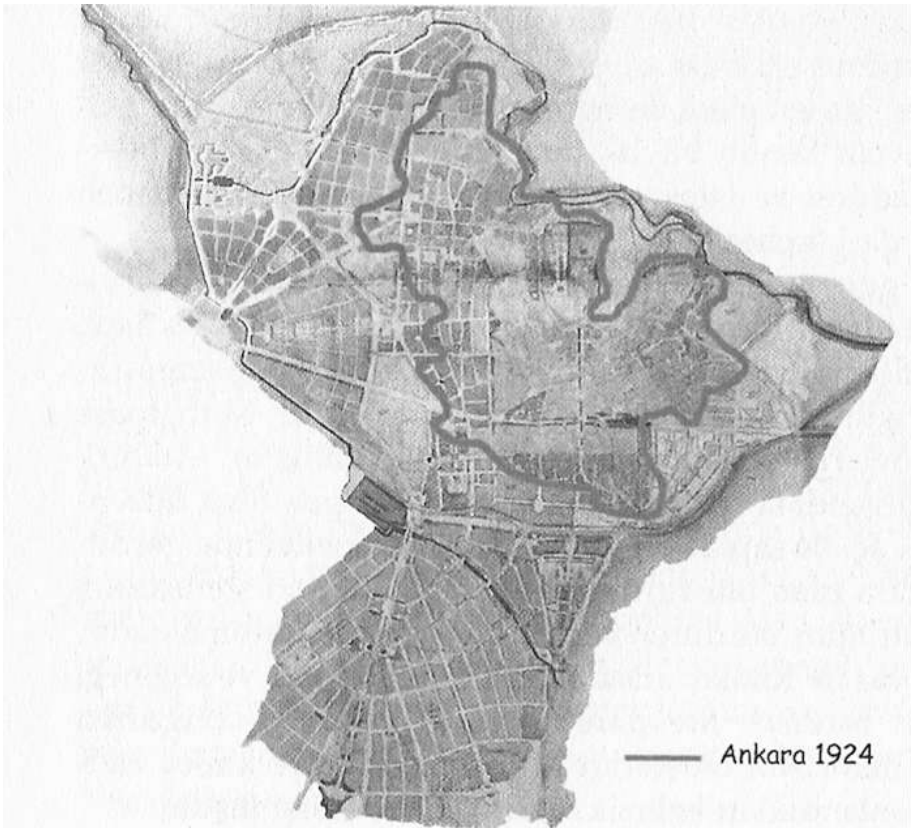


Figure 3.29: Lörcher Plan and Ankara in 1924, Source: Günay, 2006, p.68.

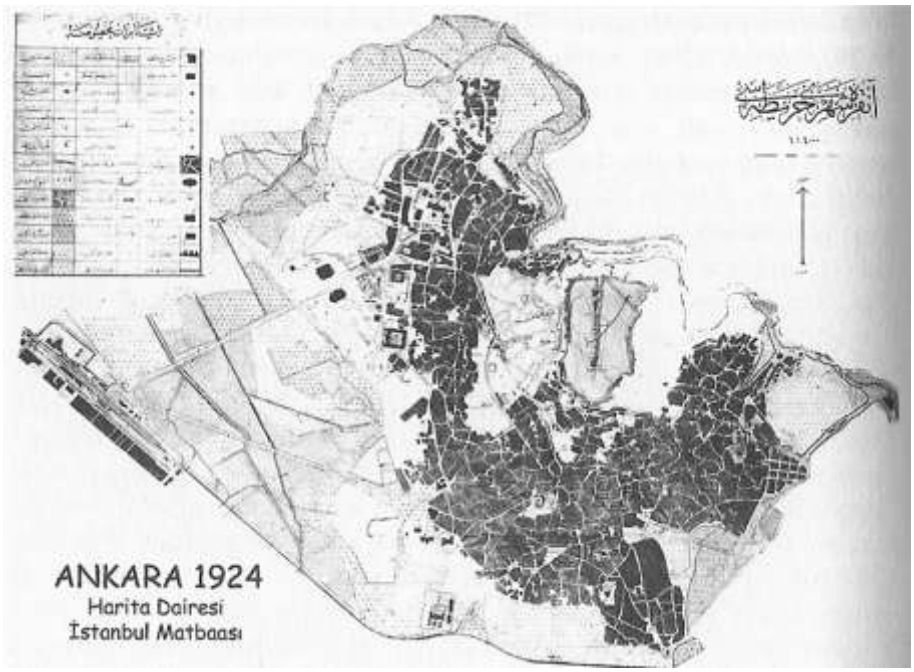


Figure 3.30: Ankara, 1924 Lörcher Plan for the Old Town, Source: Günay, 2006, p.68.

Lörcher's Plan had been directing the urban development in Ankara until the enactment of Jansen's Plan in 1932 (Günay, 2006, p.67). Lörcher's plan had constituted the basis of the urban pattern holding central functions that will be created in Ulus and Kızılay. Together with the plan for the new town (Yenişehir Planı) located on the south of railways, 'the new urban pattern of the new town' was generated (Günay, 2006, p.67), according to the Lörcher's ideas on 'urban plot-block organizations, infrastructure, planning of streets and public squares, buildings heights, etc' (Türkoğlu Önge, 2007, p.76). Lörcher's plan had structured the main road systems and the location of the main squares such as, Cumhuriyet-Kızılay Square, Sıhhıye Square, Zafer Square, Millet Square, Ulus Square, Lozan Square, Tandoğan Square and the squares in the entrances of the İzmir and Tuna streets (Günay, 2006, p.67; Cengizkan, 2002, p.220).

Löcher's plan did not provide any policies about the growth of the city. Organization of the first and urgent structuring process of the new capital city, and identifying the location of the public buildings and housing areas were what was crucial in that period.

Since Lörcher's plan was to be 'limited in size and scope' causing the uncontrolled growth of the city, government organized a project competition in order to get a general plan of the city. Hermann Jansen was the winner of the project competition that was held in 1927. Government had commissioned Jansen for preparing detailed development plans which were enacted in 1932 (Türkoğlu Önge, 2007, p.77).

Jansen's plan was organized for an estimated population of 300.000 inhabitants within 50 years time period (Figure 3.31). The most significant feature of Jansen's plan was the 'zoning' approach it brought about which means the separation of the city into 'functional and specialized' parts (Türkoğlu Önge, 2007, p.77). Atatürk Boulevard was proposed as the main north-south axis of the city interconnecting the old and new parts: Ulus-Yenişehir-Çankaya, and holding the 'administrative, residential, industrial, educational and recreational' zones as well (Günay, 2006, p.71-72; Türkoğlu Önge, 2007, p.77). Ministries quarter (Vekaletler Kartiyesi) in Yenişehir district was introduced as an administrative center (embracing the Parliament building, ministries' buildings, and the houses of the new governmental officials) and the plan proposed middle and low density residential areas; on the other hand, Jansen's plan kept the old center as the 'traditional, pre-modern' center of Ankara (Tunç, 2003, p.64; Türkoğlu Önge, 2007, p.77).

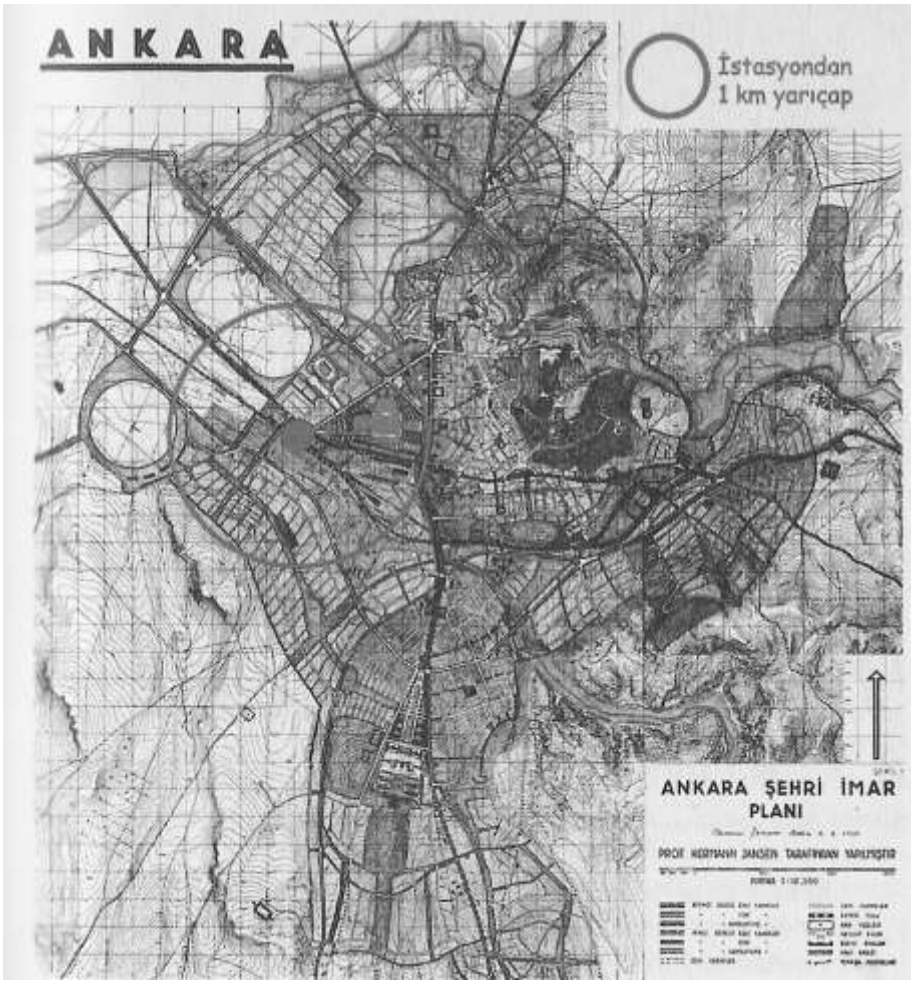


Figure 3.31: Jansen's Plan, Source: Günay, 2006, p.73.

Although the new administrative center is proposed with a distinct character than Ulus regarding its form and functions, Tankut (1993, p.269) criticizes the absence of a business center proposal, other than Ulus, for the capital city in a plan of 50 years time period. In this respect, mono-centric approach and lacking transportation interconnections had resulted with the emergence of a new center which is not previously envisaged in the plan (Tankut, 1993, p.269). In this regard, Kızılay is structured as the new center together with the development of residential areas in Maltepe and Cebeci (including also educational facilities) along an east-west axis (with Gazi Mustafa Kemal street in the west and Ziya Gökalp street at the east) which is located at the center of the intersection of this axis with the Atatürk Boulevard (Günay, 2006, p.77). Günay (2006, p.78) states that Kızılay had immediately gained a central

business district character after the location of the ministries to the south, although it was planned as a district center.

Osmay (1998) puts forward the 'dual city centre structure' (traditional center and the modern center) of Turkish cities, after the proclamation of republic, including capital Ankara. In her study, Osmay points out the distinct character of this duality in Ankara resulting from the location of the public buildings. Ulus was the place where public buildings were located during 1923-1927; however since mid 1930s, together with Jansen's plan, Yenişehir became the place where public buildings were concentrated and formed an administrative center.

Apart from the differentiation in form and function, these two centers differentiated also in social terms, Yenişehir and Kızılay served for upper-class elites whereas, especially after the Second World War together with the growing migrations from rural areas to Ankara, Ulus became a center serving for low income groups (Tunç, 2003, p.66).

Within the public spaces and urban squares context, the period between 1923 and 1950 represents a substantial development. Ankara was the pioneer of all public space designs in the entire country due to its position as the symbol of the Republican spatial approach (Sargın, 2002, p.32). In this period, 'public spaces such as the large boulevards, squares and recreational areas were planned to supply the needs of a modern social life and enhance a public realm' (Türkoğlu Önge, 2007, p.88).

Kızılay Square (including Güven Park) was the most significant development during 1923-1950, which was first introduced in Lörcher's Plan (as the Cumhuriyet or Kurtuluş Square) with a different character (a district square) (Cengizkan, 2002, p.230). Batuman (2002, p.54) states that, Kızılay had been a regular, clean and green environment till mid 1940s and the most favorite activity for the inhabitants of Yenişehir was to promenade through the boulevard, and then rest in a café or in Kızılay Square. According to Günay (2006, p.80), the most identical design criteria that represent the 19th century European approach in Ankara is structured in Bakanlıklar district.

Besides Güven park, Gençlik Park (located between old center, Ulus and new town, Yenişehir as a city park), Hacattepe Park, Hippodrome and stadium take place as recreational open and green spaces (Kayasü, 2006, p.174-175). Jansen's Plan proposes a balance between open spaces, green spaces and built spaces (Kayasü, 2002, p.174).

According to Tankut (1993) the years between 1929 and 1939 represent 'the most planned period of Ankara', although there had been problems during the implementation of the plan. Most significantly, plan had faced the problem of underestimated population growth and subsequently growing demands on housing. Population had already exceeded the estimated population of 300.000 inhabitants, in the beginning of 1950s and city had extended until the limits of the existing Jansen Plan, as a result of this, the necessity of preparing a new plan had emerged. On the other hand, Turkey had been experiencing a transition from nation-state policies to liberal policies in the end of 1940s (Günay, 2006, p.80) that opens up a new period both for Ankara and Turkey.

3.2.2.2 1950-1980 PERIOD

In the late 1940s, together with the changing political and economical structure, Ankara had faced a rapid growth which is over estimations in terms of both physical urban pattern and population. In this respect an international competition was organized in order to keep the growth of the city under control. Raşit Uybadin and Nihat Yücel were commissioned for the preparation of the plans of Ankara.

Uybadin-Yücel plan, approved in 1957, was structured around a population estimation of 750.000 inhabitants in 2000, which was already 455.000 in 1955 (Figure 3.32). Plan proposed a design based on the rectangular building block in which detached buildings were located (Günay, 2006, p.80-81). Günay (2006, p.81) states that the plan does not provide a policy about city centers, and leaves Atatürk Boulevard as the only connection between the two centers: Ulus and Kızılay. Ulus had remained as the main center, on the other hand Kızılay was being loaded with various CBD functions.

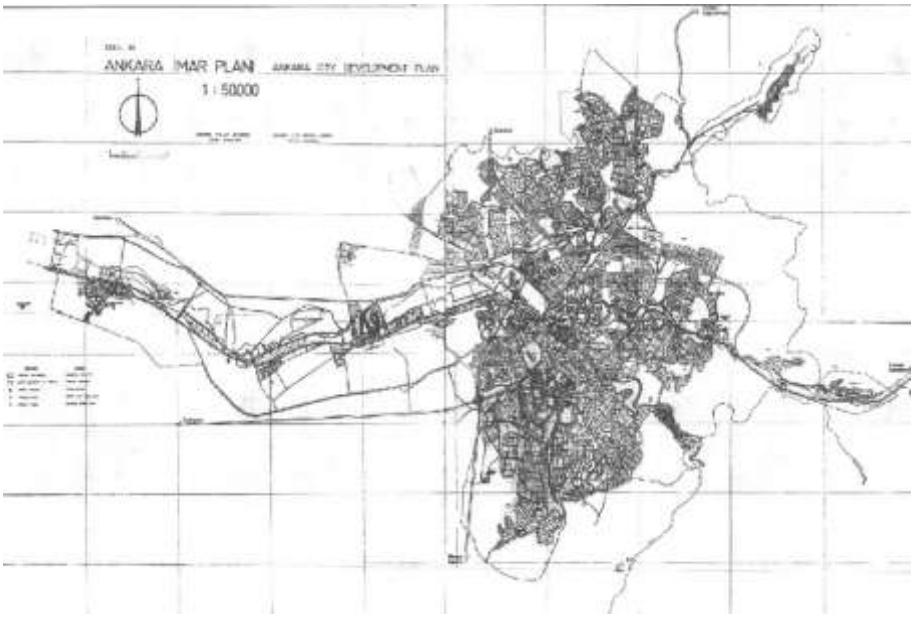


Figure 3.32: Uybadin-Yücel Plan, Source: Ankara Büyükşehir Belediyesi, 2006, p.56.

In this period planning techniques were not yet advanced; and besides, as a result of the underestimated population growth which had reached to 650.000 inhabitants in 1960, had led the administrators to provide a new plan for the city. Instead of preparing a new plan, existing Uybadin-Yücel plan was modified and proposed densities (development rights) were increased; and consequently the District Floor Order Plan was introduced in 1968 initiating the '*yık-yap*' (demolish and build up) processes in the city that paved the way through the multi-storey building constructions (Günay, 2006, p.81).

This process of increasing densities had resulted with a multitude of problems in time, especially in the city centers, ranging from infrastructural inadequacy to traffic congestion and diminishing physical quality (Tunç, 2003, p.70). The most crucial problem of Ankara (including big cities such as İstanbul and İzmir) in this period was the tremendously growing squatter housing developments due to the great amounts of migrations from rural areas. Squatter housing areas had been covering the entire city, (for instance the eastern part of the city was completely comprised of squatter housing neighborhoods), and the urban development axes were blocked by these areas (Günay, 2006, p.88). And hence, a process of suburbanization was initiated in 1970s, which will be detailed in following period by Metropolitan Area Master Plan Bureau.

Public space and square developing processes in this period were not pleasing at all. The changing political structure had resulted with significant transformations in the Republican spatial approach (Batuman, 2002, p.55). The modernity understanding of the republican era which expresses the economic development parallel with the social development had been replaced with an approach that includes traditional, religious and unprogressive elements (Batuman, 2002, p.55). As also stated in Özaloğlu's study (2008, p.25) which she identifies the 'lived spatiality of Ankara' between the years 1935 and 1950, through the memories of its citizens, the 'lifestyle and the city itself changed by the time of the 1950 elections'.

Kızılay as the second CBD, had been the main public space with its square. Kızılay, as mentioned in the previous period, was serving for the upper-class elites; yet with the increased accessibility of the lower-classes by the new means of transportation: 'dolmuş', Kızılay became a place where different social groups could come together and interact with each other (Batuman, 2002, p.56).

In 1960s, Kızılay incorporates a diversity of functions regarding the definition of a city square. Apart from such social and cultural activities, and providing luxurious consumption facilities for the upper-class elites, Kızılay square gained a political character not only serving as a scene for political demonstrations but also presenting the central role which was transferred from Ulus,(that used to be the political center of the city), together with the opening of the new assembly in Yenişehir (Batuman, 2002, p.62-63).

The rising problems in Kızılay about infrastructure, traffic congestion, crime etc. were supposed to be resulting from squatter housing developments and under these circumstances, there emerged the demand on closed, sterilized spaces leading to a new form of space and a new spatial relationship between elites (in closed spaces) and the public space (to which elites stand with a distance) (Batuman, 2002, p.63-64).

The increasing political tensions, provoking violence in the city space, had been reflected as the destruction of Kızılay Square within its social and cultural dimensions. Other than political aspects, regarding the increasing traffic congestion and parking problems, streets and boulevards were enlarged (by diminishing sidewalks and green traffic islands); Kızılay Park and Güven Park were also destroyed: Güven Park became a place for bus and dolmuş stations and Kızılay Park was firstly turned into a flower bed then into a car park (Batuman, 2002, p.66-68).

Besides these destructive implementations, facilities taking place in the Kızılay Square moved into specialized sub-spaces such as Sakarya, Yüksel and İzmir streets (Batuman, 2002, p.68); and in 1978, Pedestrian Areas Project was initiated on behalf of the Greater Municipality of Ankara, in İzmir Street (after the 1980 military coup, Yüksel and Sakarya streets were also included into the pedestrianization project) (Tunç, 2003, p.72).

The review of the period between 1950 and 1980 evidently puts forward the changing physical representation of rural-urban migration and process of political restructuring on space, and with such a concern, the inadequacy of the public space and square provision is obvious for a growing metropolitan capital city when compared with the previous Republican period.

3.2.2.3 THE PERIOD AFTER 1980s

The studies, surveys and analysis undertaken by the Ankara Metropolitan Area Master Plan Bureau which was established in 1969 by the Ministry of Public Works and Settlement, had played a crucial role on the future of the capital Ankara. Ankara Metropolitan Area Master Plan Bureau had been using techniques of both 'structural plan' of 1960s' western cities, and 'comprehensive planning' (Günay, 2006, p.90). Ankara Metropolitan Area Master Plan Bureau had a distinct planning understanding (other than the previous approaches) which sees planning as a continuous process and puts emphasis on the design of the new transportation systems (Günay, 2006, p.94).

Master Plan for Ankara was prepared for the year of 1990 and had a population estimation ranging from 2.8 to 3.6 (Figure 3.33) million inhabitants. However, instead of preparing a comprehensive plan first and implementing this plan later, Ankara Metropolitan Area Master Plan Bureau had adopted a strategy which synchronizes planning and implementations (Günay, 2006, p.94). Within this context, it is assumed that the existing plan for the nucleus of the city will remain valid but will be supervised and on the other hand main focus will be the development of the city periphery (Günay, 2006, p.96).

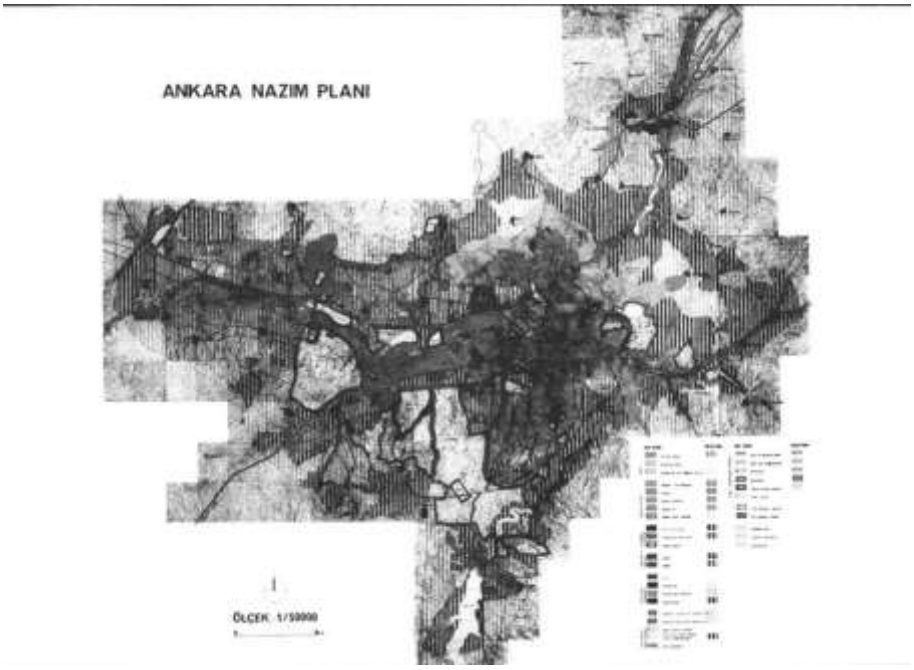


Figure 3.33: Ankara 1990 Master Plan, Source: Ankara Büyükşehir Belediyesi, 2006, p.57.

Master Plan had introduced two major developments having concerns about the provision of a more balanced and healthy urban environment. First one is the urban development strategy along the 'Western Corridor' and second one is decentralization of the Kızılay and Bakanlıklar districts along Eskişehir Road (Osmay, 1998; Altaban, 1998; Günay, 2006).

The peripheral development in Ankara was concentrated along Batıkent, Sincan and Çayyolu-Ümitköy districts, in terms of suburbanization, pioneered by public interventions. Low income groups were mainly located in Batıkent and Sincan whereas high income groups were located in Çayyolu and Ümitköy (Günay, 2006; Tunç, 2003). On the other side, Inönü Boulevard and Eskişehir Road became the main arteries due to the settlement of public buildings decentralized from Kızılay and subsequently the settlement of headquarters of private firms and companies.

Another major affect on city's growth in this period was the economic and social restructuring process which is at the global scale related with the implementation of more liberal and market-oriented policies that are available in Turkey since 1980s with the establishment of Özal government. In this respect, the structure of retailing had faced a process of change as well. City centers became places for 'production services', yet

'consumption services' left the centers and took place out of the city centers in residential areas as 'hypermarkets, supermarkets and shopping centers' having 'essential social and spatial impacts upon the urban structure' (Tunç, 2003, p.74-75).

Development of out-of-town shopping centers and hypermarkets was accelerated as a result of the growing tendency towards suburbanization (creating masses for consumption), increasing foreign investments, rising car-ownership and technological improvements and developments (Tunç, 2003, p.74-75).

Shopping centers had been taking place in city of Ankara since 1990s. Some shopping centers are located in CBDs or close to CBDs like Atakule (which was the first shopping center opened in 1989), Karum (opened in 1991),and around transportation nodes like Migros Akköprü and Armada shopping centers. Some other shopping centers took place in suburban areas like Ümitköy Galleria, Koru Mesa Plaza and Bilkent Center along the western corridor (Tunç, 2003, p.75). The process of decentralization is supported with the creation of new foci by shopping centers; some shopping centers as previously mentioned remain at a local scale and some others are serving for the entire city, however in both cases the power of the city centers are diminished anyway (Günay, 2006, p.113).

Another significant aspect of the era after the second half of 1990s is about the introduction of the Islamist view into the political arena (Aksel Gürün, 2009; Batuman, 2002). The symbol of Ankara has changed in this period 'from Hitite Sun Statue to the Kocatepe Mosque and Atakule shopping center in Çankaya which shows the political and spatial changes in the city symbolically. From then on, the city will not be celebrated with the cultural and historical values but the shopping center that is a sign of capital and the mosque a sign of Islamist view' (Aksel Gürün, 2009, p.84).

After the expiration of the Ankara 1990 Master Plan, Ankara 2015 Structural Plan was prepared during 1985-1986, as a result of various survey and analysis studies about macroform and transportation systems held by Middle East Technical University, Department of City and Regional Planning Work Team (Günay, 2006, p.109). However this plan could not achieve to be politically approved and thus, plan could not ever realized (Günay, 2006, p.110).

Ankara 2025 Plan was prepared during 1997-1998 and proposed to Metropolitan Municipal Council in 1998; nevertheless it was not approved. 1990 Ankara Master Plan remained valid till 2007, with its limited influence area, and the city had dispersed in an

uncontrollable fashion (Günay, 2006, p.115). Under these circumstances, the transportation problems are tried to be solved through the enlargement of main traffic arteries and in the end transformation of these roads into fast expressways by destroying public spaces (Günay, 2006, p.115).

After the approval of the law of Metropolitan Municipality, numbered 5216, in 2004 (that allows municipalities to make and approve plans at any scale), Ankara Greater Municipality had prepared the 2023 Capital Ankara Plan in 2006 and approved the plan in 2007 (Figure 3.34) (Aksel Gürün, 2009, p.100). The plan was organized with a population estimation of 6 million in the year of 2023, proposing a 'compact urban form'.

The 2023 Capital Ankara Plan proposes the city growth along southwestern and western corridors, promotes and puts emphasis on district centers, and offers urban development within specific concentrations (Ankara Büyükşehir Belediyesi, 2006). Aksel Gürün (2009, p.100) asserts that these objectives belong to a 'polycentered city' and unless the decisions taken for the city center are 'neatly addressed', 'it would accelerate the fragmentation process of the urban center'.

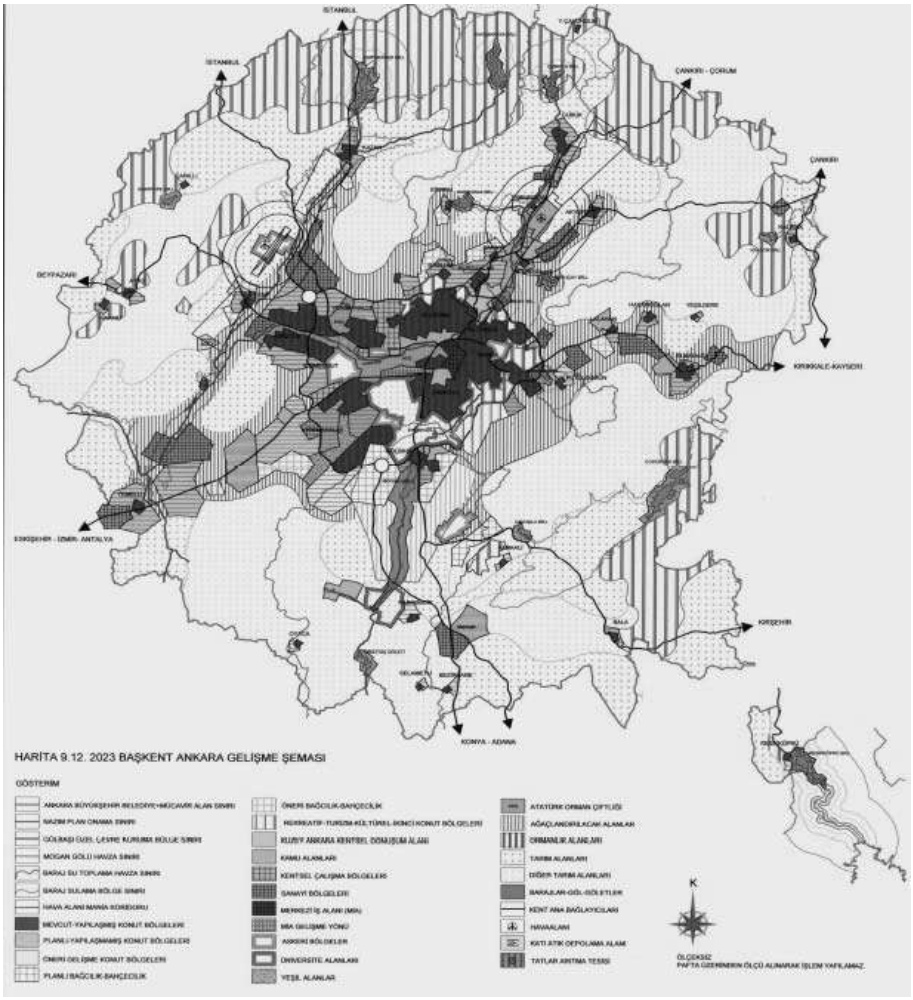


Figure 3.34: 2023 Capital Ankara Master Plan, Source: Ankara Büyükşehir Belediyesi, 2006, p.704.

Within the public spaces and square production context, the period after 1980s can be again evaluated as inadequate. Although there are continuing projects about pedestrianization in Kızılay; the administrators and local governments lacked in public space provision. Moreover, Kızılay Square was turned into a traffic node by destroying its fundamental aspect of providing such a resting space (Batuman, 2002, p.72).

City centers have been facing the problem of fragmentation that leads the loss of urban squares and public spaces with the introduction of shopping centers into the city space especially since 1995, together with the impact of political considerations, capital accumulation mechanisms, alterations within legal content, and the tendency on the 'autonomous' urban development as well (Aksel Gürün, 2009, p.103). in addition to that,

as a result of the inadequate or rather diminishing public space provision together with low physical quality and lack of comfort, shopping centers arrogated the functions and activities denoted with such spaces and emerged as alternative public spaces by providing hygienic places where people can come together, have interactions, and engage in different activities (Tunç, 2003, p.77-78).

To conclude, the historical evolution of the capital Ankara within the context of squares and public spaces shows that the proclamation of republic denotes a significant step in terms of the introduction of squares into cities. On the other hand, since 1950s, squatter housing, emerged as a result of the rural to urban migrations, and inadequate interventions towards this development had created an urban pattern that is away from the contemporary design standards and lacks in public spaces and squares provision. From 1980 and onwards, eventually today, capital Ankara has turned into a city which is gradually becoming 'squareless'; a city without squares or plazas, with the rise of shopping centers and fragmentation of the city centers.

Following Table 3.3 introduces the changing definitions of squares within different historical periods as a summary of the development of the square concept within the Turkish context. On the other hand, Table 3.4 presents an assessment of the Turkish squares in case of Ankara during different historical periods in reference to the good urban square design criteria obtained within the framework of the previous chapter.

Table 3.3: Changes in the definition of squares/plazas within the context of Turkish urban space during different periods

PERIODS	DEFINITION OF THE SQUARE
Period before the republic	The heart of the city (mainly for commercial activities and religious gatherings in mosques)
1923-1950 Period	Open spaces as the symbol of republican era and the ideology supplying the needs of a modern social life
1950-1980 Period	Merely a political arena
The period after 1980s	Traffic nodes at the intersection of the streets, without visual prosperity; and alternatively provided within shopping malls

Table 3.4: Assessment of the Turkish squares

PERIODS		GEOGRAPHICAL ASPECTS	PHYSICAL ASPECTS	PSYCHOLOGICAL BEHAVIORAL ASPECTS	MANAGERIAL ASPECTS
Period before the republic		-at the center of the town -bedestens, hans, open bazaars, mosques are the major structures surrounding the square	-not a well-defined, central scale square structure -use of greenery and monuments (fountains, clock tower) -major elements of a typical square: the mosque, teahouse and the monumental tree or the fountain	-relaxation (up to a degree)	-economic activities -teahouses
Period after the republic	1923-1950 period	-at the center of the city -public buildings and functions are located around	-regular, well-defined structure -in pedestrian scale -use of natural elements -continuity of open spaces -balance between open spaces, green spaces and built spaces -larger in size	-resting, relaxing spaces	-clean environment -incorporating cafes, restaurants -shopping, economic activities -ceremonies, public gatherings, parades
	1950-1980 period	-at the center of the city -public buildings and CBD functions are taking place around -highly accessible by means of public transport (dolmuş etc.)	-no enclosed, well-defined spaces -use of natural elements (flowers, trees etc.) -use of public art (monuments, statutes etc.)	-resting, relaxing spaces	-provides a diversity of functions -cultural and social activities -shopping facilities -place for political demonstrations
	The period after 1980s	-a squareless city -alternative public spaces out of town shopping centers	-low physical qualities -not a well-defined form	-lack of comfort	-hygienic environments of shopping malls -providing diversity of activities

CHAPTER IV

METHODOLOGY OF INTEGRATING HUMANISTIC DESIGN PROCESS

This chapter introduces the methodological framework of the study. It includes the research approaches, variables being tested, respondents, data gathering and data analysis techniques.

The methodological framework is structured in reference to the formulated research questions. Following the main research question of '**What kind of an urban square can be produced in Çayyolu?'**, the study aims to reveal the user's and decision maker's perspectives of a 'good' urban square. Incorporating the sub-questions about user's perceptions, local authority's approach and group differentiations the following table explains the methodological framework of the study (Table 4.1).

Table 4.1: Methodological framework of the study

RESEARCH QUESTION	RESEARCH APPROACH	INTERVIEWED	INDICATORS/ VARIABLES	METHODS/ TECHNIQUES IN DATA GATHERING	METHODS/ TECHNIQUES IN DATA ANALYSIS
					USER'S PERCEPTION
GENERAL PERCEPTION: **WHAT IS THE IMAGE OF A 'GOOD' URBAN SQUARE FOR THE INHABITANTS OF ÇAYYOLU (USERS)?**	EXPLORATORY	FUTURE USERS OF THE ÇAYYOLU URBAN SQUARE (DIFFERENT AGE GROUPS: STUDENTS (18-24), WORKING POPULATION (25-65), RETIRED (+65)	PERCEIVED ATTRIBUTES AS DEFINED BY USERS	IN-DEPTH INTERVIEWS DRAWING/ MAPPING	SUBJECTIVE DESCRIPTIONS, FREQUENCY MATRICES, CONTENT ANALYSIS, SHARED COGNITIVE MAPPING

Table 4.1 (Continued)

RESEARCH QUESTION	RESEARCH APPROACH	INTERVIEWED	INDICATORS/ VARIABLES	METHODS/ TECHNIQUES IN DATA GATHERING	METHODS/ TECHNIQUES IN DATA ANALYSIS
					USERS' PERCEPTION
APPROACH TO THE PREVIOUSLY DEFINED ATTRIBUTES: **WHICH ARE THE PREFERRED ATTRIBUTES OF A 'GOOD' URBAN SQUARE?**	QUASI-EXPERIMENTAL	FUTURE USERS OF THE ÇAYYOLU URBAN SQUARE (DIFFERENT AGE GROUPS: STUDENTS (18-24), WORKING POPULATION (25-65), RETIRED (+65)	1.PREVIOUSLY DEFINED PERCEIVED ATTRIBUTES *{GEOGRAPHICAL, PHYSICAL (visual-aesthetic elements), BEHAVIORAL/* *PSYCHOLOGICAL, MANAGERIAL }*	LYKERT-SCALE RATING	DESCRIPTIVE STATISTICS
SHOPPING MALL VS SQUARE: **DO PERCEIVED ATTRIBIUTES OF A 'GOOD' URBAN SQUARE EXPLAIN ARCADIUM (shopping mall) USERS' PREFERENCES?**	QUASI-EXPERIMENTAL	FUTURE USERS OF THE ÇAYYOLU URBAN SQUARE (DIFFERENT AGE GROUPS: STUDENTS (18-24), WORKING POPULATION (25-65), RETIRED (+65)	PREVIOUSLY DEFINED PERCEIVED ATTRIBUTES *{GEOGRAPHICAL, PHYSICAL (visual-aesthetic elements), BEHAVIORAL/ PSYCHOLOGICAL, MANAGERIAL}* 2.GENERATED ATTRIBUTES *{VISUAL, NATURAL, BEHAVIORAL, EMOTIONAL, GEOGRAPHICAL LOCATION,LAYOUT, MAINTENANCE, USES&ACTIVITIES, PEOPLE, SPATIAL IDENTITY}*	LYKERT-SCALE RATING	MULTIPLE REGRESSION ANALYSIS
					LOCAL AUTHORITY'S APPROACH:
WHAT IS THE LOCAL AUTHORITY'S: MUNICIPALITY OF YENIMAHALLE' S APPROACH ON URBAN SQUARES AND THEIR INTENTION WHILE INTRODUCING THE 'ÇAYYOLU URBAN SQUARE PROJECT'?	EXPLORATORY QUASI-EXPERIMENTAL	DECISION MAKERS AND PLANNERS OF THE YENIMAHALLE MUNICIPALITY	APPROACHES, SITE SELECTION CRITERIA, DESIGN PRINCIPLES, PREVIOUSLY DEFINED PERCEIVED ATTRIBUTES *{GEOGRAPHICAL, PHYSICAL (visual-aesthetic elements), BEHAVIORAL/ PSYCHOLOGICAL, MANAGERIAL}*	IN-DEPTH INTERVIEWS LYKERT-SCALE RATING	SUBJECTIVE DESCRIPTIONS

Table 4.1 (Continued)

RESEARCH QUESTION	RESEARCH APPROACH	INTERVIEWED	INDICATORS/ VARIABLES	METHODS/ TECHNIQUES IN DATA GATHERING	METHODS/ TECHNIQUES IN DATA ANALYSIS
					GROUP DIFFERENCES
HOW DO PERCEIVED ATTRIBUTES EXPLAIN DIFFERENCES BETWEEN AGE/GENDER/ PROFESSION GROUPS?	EXPLORATORY QUASI-EXPERIMENTAL	FUTURE USERS OF THE ÇAYYOLU URBAN SQUARE (DIFFERENT AGE GROUPS: STUDENTS (18-24), WORKING POPULATION (25-65), RETIRED (+65)	PERCEIVED ATTRIBUTES AS DEFINED BY USERS PREVIOUSLY DEFINED PERCEIVED ATTRIBUTES *{GEOGRAPHICAL, PHYSICAL (visual-aesthetic elements), BEHAVIORAL/ PSYCHOLOGICAL, MANAGERIAL}*	IN-DEPTH INTERVIEWS LYKERT-SCALE RATING	SUBJECTIVE DESCRIPTIONS, FREQUENCY MATRICES, CONTENT ANALYSIS, GROUP-BASED COGNITIVE MAPPING, DISCRIMINANT ANALYSIS
HOW DO PERCEIVED ATTRIBUTES EXPLAIN GROUP DIFFERENCES BETWEEN USERS AND DECISION MAKERS?	EXPLORATORY QUASI-EXPERIMENTAL	FUTURE USERS OF THE ÇAYYOLU URBAN SQUARE AND DECISION MAKERS OF ÇUSP	PREVIOUSLY DEFINED PERCEIVED ATTRIBUTES *{GEOGRAPHICAL, PHYSICAL (visual-aesthetic elements), BEHAVIORAL/ PSYCHOLOGICAL, MANAGERIAL}*	IN-DEPTH INTERVIEWS LYKERT-SCALE RATING	SUBJECTIVE DESCRIPTIONS

The research has been carried out with 46 inhabitants of Çayyolu district within different age groups, and the decision makers and design professionals of the Yenimahalle Municipality. The study adopted both exploratory and quasi-experimental research approaches. In-depth interviews were held in order to reveal the 'good' urban square perception of the future users of the Çayyolu Urban Square and design approach of Yenimahalle Municipality. The cognitive mapping technique is used to obtain the image of a 'good' urban square for the project site of the future users of the Çayyolu Urban Square. Lykert-scale rating is used to test the previously defined attributes of a 'good' urban square obtained from the literature review. Finally the descriptive-qualitative data is analyzed by using the content analysis technique and translated into cognitive maps. The quantitative data is analyzed by adopting multivariate statistical techniques including gathered descriptive statistics, multiple regression analysis and discriminant analysis techniques.

This chapter defines the methodological structure of the study in five sections. First section introduces the variables used in this research that are obtained from the literature review. Respondents section explains the selection of the sample group and gives their background information. Third section discusses the exploratory and quasi-experimental research approaches adopted in the study. Forth section presents the data gathering techniques; and last section describes data analysis techniques used to analyze the data collected during the research.

4.1 RESEARCH APPROACH

The study pursues both exploratory and quasi-experimental research approaches to respond to research questions formulated under three issues (users' perception, local authority's approach and the group differentiation). Using both approaches strengthens the internal credibility of the findings, and hence, its applicability in other design projects.

Exploratory research "seeks to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them. The goal is to learn 'what is going on here?' and to investigate social phenomena without explicit expectations." (Schutt, 2006, p.14). Exploratory research approach is adopted in order to grasp the 'good' urban square perception of the users; and during the collection of data in Yenimahalle Municipality as well, about the local authority's approach.

In a Quasi-experimental research 'a comparison group' (the list of previously defined attributes of a 'good' urban square in this study) is provided and 'subjects' (users and the design professionals) are assigned to make comparisons as 'experimental groups' (Schutt, 2006, p.210). Previously defined attributes in literature are evaluated both by users and design professionals according to their preferences with respect to the level of significance for them and the municipality.

4.2 VARIABLES

The study puts forward four major categories for a 'good' urban square design in reference to the literature reviewed as follows: geographical, physical, behavioral/psychological, and managerial. The attributes taking place under these categories constitute the basis of variables used in the research.

Category of geographical aspect is composed of the attributes location and accessibility. Physical (visual and aesthetic) elements' category cover the attributes such as form, size, seating, hard and soft landscaping, shelter and protection, subspaces, lighting, human scale and public art. Comfort, safety and security, relaxation, passive and active engagement, discovery and joy are the attributes taking place under the category of behavioral and psychological aspects. Finally, the category of managerial aspects include uses and activities, eating and drinking facilities, vending opportunities and maintenance. Following Table 4.2 introduces variables within each category that are adopted during the research.

Table 4.2: Variables of the research

CATEGORIES	VARIABLES	REFERENCE
GEOGRAPHICAL	Location	(Whyte, 2009; Shaftoe, 2008; Tibbalds, 2001; Marcus & Francis, 1998)
	Accessibility	(Whyte, 2009; Shaftoe, 2008; Marcus & Francis, 1998; Childs, 2004)
PHYSICAL (VISUAL-AESTHETIC ELEMENTS)	Form	(Carmona et al, 2003; Sitte, 1965; Childs, 2004; Nasar, 1998; Krier, 1979; Shaftoe, 2008)
	Size	(Shaftoe, 2008; Lynch, 1971; Alexander, 1977; Gehl, 1987; Marcus & Francis, 1998; Childs, 2004; Whyte, 2009)
	Seating (flexibility and informal seating)	(Whyte, 2009; Marcus & Francis, 1998; Alexander et al, 1987; Childs, 2004; Shaftoe, 2008)

Table 4.2: Continued

CATEGORIES	VARIABLES	REFERENCE
	Hard landscaping (paving)	(Carmona et al, 2003; Childs, 2004; Shaftoe, 2008)
	Soft landscaping (natural elements)	(Carmona et al, 2003; Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998)
	Shelter and Protection (Microclimate)	(Carmona et al, 2003; Marcus & Francis, 1998)
	Subspaces	(Marcus & Francis, 1998)
	Lighting (nighttime lighting, access to daylight)	(Phillips, 2002; Carmona et al, 2003)
	Human scale	(Tibbalds, 2001; Shaftoe, 2008; Carmona et al, 2003; Childs, 2004)
	Public art	(Childs, 2004; Whyte, 2009; Carmona et al, 2003; Carr et al, 1992; Marcus & Francis, 1998; Shaftoe, 2008; Sitte, 1965)
BEHAVIORAL/ PSYCHOLOGICAL	Comfort	(Carr et al, 1992; Carmona et al, 2003; Shaftoe, 2008)
	Safety and Security	(Carr et al, 1992; Shaftoe, 2008)
	Relaxation	(Carr et al, 1992; Carmona et al, 2003)
	Passive engagement with the environment	(Carr et al, 1992; Carmona et al, 2003; Francis M., 2003; Montgomery, 1998;Shaftoe, 2008)
	Active engagement with the environment	(Carr et al, 1992; Carmona et al, 2003; Gehl, 1987; Whyte, 2009)
	Discovery	(Carr et al, 1992; Carmona et al, 2003)
	Joy	(Shaftoe, 2008)
MANAGERIAL	Uses and Activities	(Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998; Francis M., 1987)
	Eating and Drinking	(Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998)
	Vending	(Marcus & Francis, 1998; Akkar Ercan, 2007; Childs, 2004)
	Maintenance	(Shaftoe, 2008; Marcus & Francis, 1998)

4.3 RESPONDENTS

Forty-six inhabitants of Çayyolu participated to the study. The respondents represent inhabitants from different age-groups included young: *students* (18-24 years old), middle-aged: *working population* (25-65 years old) and elderly: *retired* (65+ years old) who have voluntarily participated.

During the survey carried out with the inhabitants of Çayyolu, in order to minimize a biased outcome, which could stem from the dominance of a certain group, it is aimed to create a respondent group with different backgrounds, ages and genders. Therefore, the research has been conducted in Arcadium (shopping center) in Çayyolu which is one of the central places in the district where a wide range of people living in the district with various backgrounds and from different age groups can be reached. Moreover, since it is located adjacent to the ÇUSP area, this study assumed that the Arcadium users also represent the future users of the project area. Interviews were done in the ground floor of the shopping center, during midday and evening hours in week days and on the weekends (in order to reach maximum variety of respondents within rush hours).

Sequential sampling is used to select the respondents for interviews. One-to-one interviews are conducted and systematically after completing an interview, the next interview is done with a person in a different gender. Interviews are continued until the number of male and female respondents reached equal numbers for each age group.

Within this respect, 8 young, 10 elderly and 28 middle-aged inhabitants are interviewed. Accordingly, the middle-age group represent more than half of the total sample (61%) The following table presents the distribution of interviewed age groups (Table 4.3).

Table 4.3: Distribution of respondents according to gender

AGE GROUP	GENDER	NUMBER of PARTICIPANTS
18-24	FEMALE	4
	MALE	4
	Total	8 (17%)
25-65	FEMALE	14
	MALE	14
	Total	28 (61%)
65+	FEMALE	5
	MALE	5
	Total	10 (22%)
TOTAL	FEMALE	23
	MALE	23
	Total	46 Participants

The majority of the respondents are composed of professionals from various academic backgrounds. Furthermore, there are students, housewives and retired respondents. Inhabitants coming from business/finance professional background represent the biggest group (22%). Students (15%) teaching professionals (15%), and engineers (17.5%) participated to the study in almost equal numbers. The rest is composed of housewives (6.5%), retired (6.5%), design professionals (9%), self employed (6.5%) and journalist (2%). Table 4.4 shows the distribution of participants with respect to various professional background.

Table 4.4: Distribution of respondents according to their occupational activity

OCCUPATIONAL ACTIVITY	NUMBER OF RESPONDENTS	RATIO %
Student	7	15%
Housewife	3	6.5%
Retired	3	6.5%
Teaching professional	7	15%
Engineer	8	17.5%
Business/finance	10	22%
Design professional	4	9%
Self-employed	3	6.5%
Journalist	1	2%
TOTAL	46	100%

Respondents participated in the research are from surrounding neighborhoods to the project site (Figure 4.1). The neighborhoods include Koru Mahallesi, Çayyolu Mahallesi, Ümit Mahallesi, Yaşamkent, Konutkent I and II, Oyak Houses, Prestige Houses and Turkuaz Houses. The map below illustrates the locations of respondents and the following table presents the distribution of respondents according to their locations (Table 4.5). Almost one fourth of the respondents are from Koru Mahallesi (24%). Respectively respondents from Çayyolu Mahallesi (22%), and Konutkent I-II (20%) constitute nearly the half (44%) of all the respondents. The rest live in Oyak Houses (13%), Prestige Houses (6.5%), Ümit Mahallesi (6.5%), Yaşamkent (4%), and Turkuaz Houses (4%). Appendix C provides a detailed background information of the respondents.

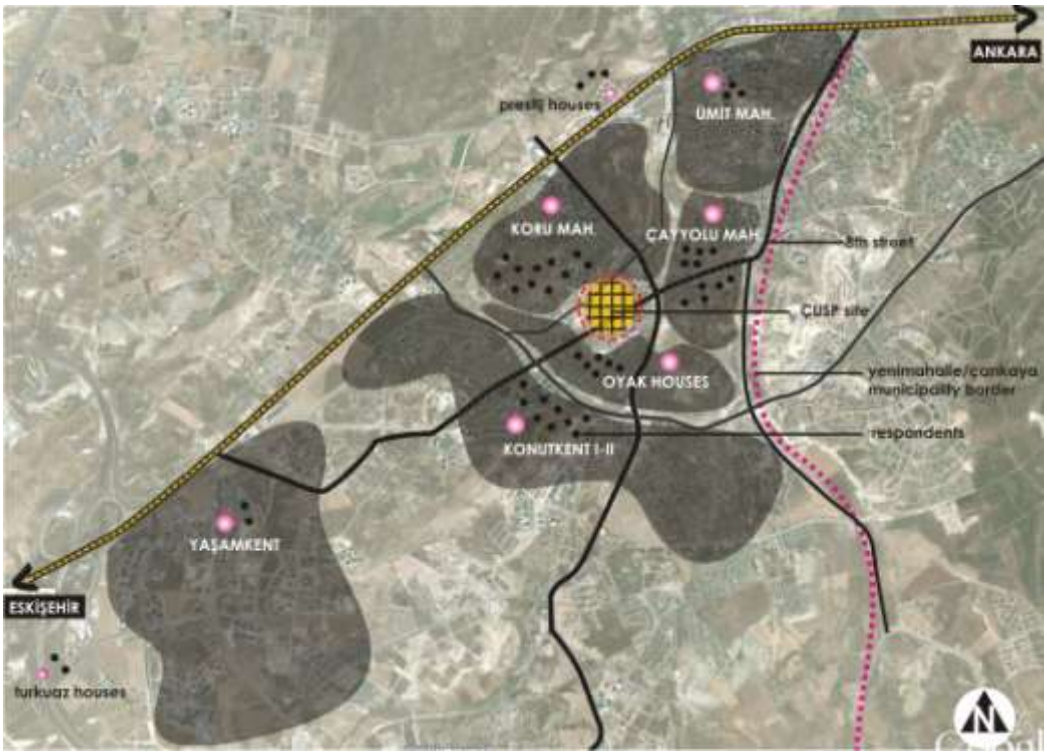


Figure 4.1: Map of the respondents' location

Table 4.5: Distribution of respondents according to their location

LOCATION	NUMBER OF THE RESPONDENTS	RATIO%
Konutkent I-II	9	20%
Toki Prestij Houses	3	6.5%
Turkuaz Houses	2	4%
Yaşamkent	2	4%
Ümit Mah.	3	6.5%
Çayyolu Mah.	10	22%
Oyak Houses	6	13%
Koru Mah.	11	24%
TOTAL	46	100%

4.4 DATA GATHERING TECHNIQUES

The study uses three main data gathering techniques including in-depth interviews, mapping, and Lykert-scale rating. Data is gathered in December, 2010 during the surveys with each respondent who are the inhabitants of the district and the design professionals in Yenimahalle Municipality.

The survey conducted with the users is composed of three sections. The first section is the 'in-depth interview' part in which respondents are asked open-ended questions to define the 'good' urban square for them considering the geographical/locational, physical/visual, behavioral/psychological and managerial aspects. Following these questions, with the 'mapping technique' used in the second part, respondents are asked to illustrate their 'good' urban square in the ÇUSP site. In the last section, using the 'Lykert-scale rating technique', in order to test the variables obtained from the literature review, respondents are firstly asked to rate the 29 statements according to their definition of a 'good' urban square; and secondly, they are asked to rate how much they like the inner-court of nearby shopping center-Arcadium and to rate the same 29 statements for the inner-court of the Arcadium shopping center (in the ground floor). Respondents rated the statements according to the Lykert-scale items where 1 stands for 'do not agree' and 7 stands for 'strongly agree'. Table 4.6 shows the questions that are formulated to involve the perceived attributes defined in previous research. (see Appendix A for the original form of users' survey)

Table 4.6: Questions asked in the survey

QUESTIONS	
Section 1	
1.1	How would you define a 'good' urban square for you? Can you describe it? (considering your needs to be satisfied, reasons to use the place)
1.2	Can you add any other attributes or reasons that come to your mind? (regarding the geographical/locational aspects; physical /visual features, your feelings and behaviors, or the maintenance and activities)
Section 2	
1	How would you design the Çayyolu Urban Square project site according to your definition of a 'good' urban square? How would you organize the elements you mentioned before? Can you show on the map below?
Section 3	
3.1	Evaluate the following statements according to your definition of a 'good' urban square
3.2	How much do you like the inner-court of Arcadium shopping center?
3.3	Evaluate the following statements for the inner-court of Arcadium shopping center according to your definition of a 'good' urban square

The evaluation of the variables obtained from the literature review is realized through rating the statements in the survey. Table 4.7 introduces statements and their related category. Respectively the first two statements intend to test the variables about geographical/locational aspects, following sixteen statements intend to test the variables about physical/visual aspects, following seven statements intend to test the variables about behavioral/psychological aspects, and the last four statements intend to test the variables about managerial aspects.

Table 4.7: Statements and the category of related variables (see Table 4.2 for the variables)

VARIABLE	STATEMENT
GEOGRAPHICAL	-Taking place in a central location (including various uses and functions)
	-Taking place in reach of all means of transportation
PHYSICAL	-The form and the borders of the square is defined (by buildings, benches, natural elements etc.)
	-The size is approximately 12m-24m along each side
	-The size is approximately 70m-100m along each side
	-Incorporates seating (benches, chairs etc.)

Table 4.7 (Continued)

VARIABLE	STATEMENT
PHYSICAL	-Seating can be moved
	-Incorporates alternative sitting places such as walls, stairs, flower-beds etc.
	-Incorporates hard, dry, non-slip surface
	-Incorporates identical surface material
	-Incorporates natural elements such as trees, plant, bushes, flowers, grass and lawns
	-Allows access to sunlight
	-Incorporates shelter and protection from rain, wind and excess sunlight
	-Incorporates subspaces for various activities
	-Adequately lightened at nights
	-In reach of natural daylight
	-Provides a human scale environment (in terms of spaces and elements)
	-Incorporates public art (statutes, monuments, fountains etc.)
BEHAVIORAL/ PSYCHOLOGICAL	-It is a comfortable space
	-I feel safe and secure
	-I feel relaxed
	-I can observe/watch the surrounding environment
	-I can engage into various activities (concerts, social facilities, exhibitions, performances, shows etc.)
	-It makes me curious and encourages to discover
	-I can have fun
MANAGERIAL	-Provides places for a variety of uses and activities considering the diversity of users
	-Provides eating and drinking facilities
	-Provides vending
	-Provides a well-maintained and clean environment

The survey conducted with design professionals of Yenimahalle Municipality is composed of two sections. In the first section they are asked open-ended questions through in-depth interviewing technique. The questions explored municipality's planning approaches and design principles within the context of urban square production, intentions while introducing the ÇUSP, reasons of site selection and the adopted design criteria in ÇUSP. In the second section, respondents are asked to rate, by using the Lykert-scale rating technique, the 29 statements (same statements used in the users' survey) considering the design principles of the Yenimahalle Municipality adopted in the ÇUSP. (see Appendix B for the original form of the decision-makers' survey)

4.5 DATA ANALYSIS TECHNIQUES

The study uses content analysis, descriptive quotations, shared maps, descriptive statistics, multiple regression analysis and discriminant analysis techniques to analyze the data gathered through in-depth interviews, maps and Lykert-scale rating.

The verbal/narrative data collected as subjective descriptions, during in-depth interviews, is analyzed by using 'content analysis' techniques. This techniques allow one to observe the frequency of the mentioning of the particular variables and to reveal some other variables which are not prevalent in the literature reviewed. Content analysis is the technique 'for making inferences by objectively and systematically identifying specified characteristics of messages' (Holsti, 1969, p.14).

The individual maps created during the interviews held with inhabitants of Çayyolu is analyzed through 'shared cognitive maps' in order to identify the future users of the ÇUSP's collective and distinctive perceptions and preferences.

The quantitative data gathered during the Lykert-scale ratings is analyzed through both 'descriptive statistics' and 'multiple regression analysis'. Descriptive statistics are 'used to describe the basic features of the data in a study … provid[*ing*] simple summaries about the sample and the measures and simply describ[*ing*] what is or what the data shows' (Friedman, 1998, p.40). Multiple regression analysis is a statistical technique constituting an adequate model that examines the casual relationship between a single dependent variable and several independent variables at one time. Multiple regression analysis aims at anticipating how the changes in independent variables affect the dependent variable.

Group based differences are analyzed through discriminant analysis. Discriminant analysis investigates the variables at the same time by developing a linear combination of the discriminating variables and testing the hypothesis of this linear combination to differentiate between or among groups. Due to the exploratory nature of the study, considering that each including variable may result a differentiation among groups; therefore I used a stepwise technique while choosing the discriminating variables and studied the differences.

CHAPTER V

CASE STUDY and RESEARCH FINDINGS

This chapter briefly introduces the case study area and the research findings. In the first part chapter focuses on the study case area. Benefitting from the interviews conducted with the professionals in Yenimahalle Municipality, it gives information about the case study area within the context of Ankara and explains the process of Çayyolu Urban Square Project design and implementation.

Second part concentrates on the research findings. Firstly it presents the results came up from the in-depth interviews carried out with the inhabitants of Çayyolu. To do that, in first place, chapter deals with the analysis of the perceived attributes revealed during the interviews. Then chapter presents the analysis about testing the previously defined attributes for the 'good' square design, including the case of Arcadium shopping center. And finally chapter introduces the group differentiations in terms of perceived and preferred attributes.

5.1 CASE STUDY AREA

5.1.1 ÇAYYOLU WITHIN THE CONTEXT OF ANKARA

Çayyolu is a south-western peripheral development located along the Eskişehir Road that has been initiated within the context of 1990 Ankara Metropolitan Area Master Plan, where the preliminary policies of urban decentralization were being implemented (Figure 5.1). Beginning from the 1980s, the mass housing projects in Çayyolu, Ümitköy and Konutkent were put into practice in the south part of Ankara-Eskişehir Road, and Çayyolu started to be transformed (Doğan, 2008). In the 1990s, the south western and southern parts of Ankara became more developed parts of the city compared to the other sections.

Housing with better urban services and lower densities has attracted especially high income households (Akın, 2007, p.238-239; Doğan, 2008, p.121 97, Güvenç, 2001, p.18). Akın's (2007) study shows that the inhabitants of Çayyolu prefers living in the area due to its high living standards and peaceful environment. According to the 2023 Capital Ankara Plan Çayyolu is assigned as a sub-center.

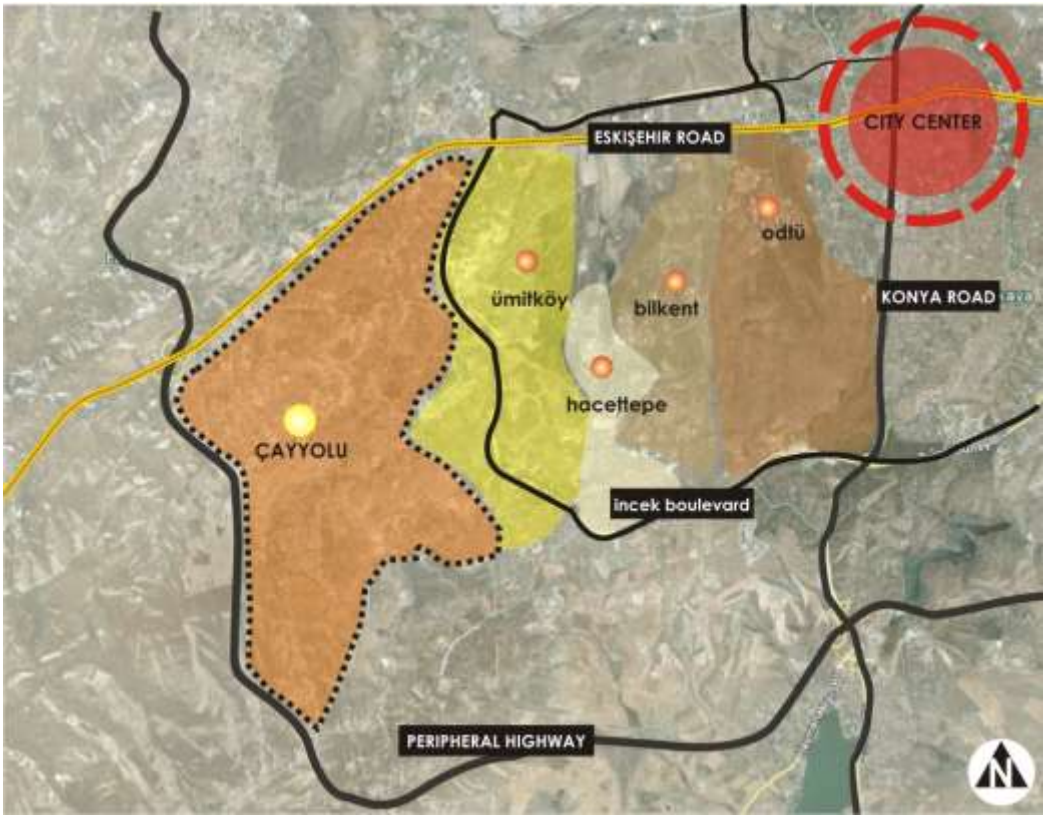


Figure 5.1: Location of Çayyolu within the context of Ankara

The interview held with the head of the Department of Environment within the Public Works and Urbanism Directorate in Yenimahalle Municipality (Uyar, 2010a; Uyar, 2010b), clarifies that Çayyolu Mass Housing Project, was initiated in 1986 by the Greater Ankara Municipality. The project covered an area of 300 hectares and structured around a population estimation of 100.000 inhabitants. The Çayyolu Mass Housing Project proposes a "square" site within the context of 1/5000 scale Development Plans. The square is located in the middle of this south-western district where central functions are concentrated and serves both for the district centre and for the whole project area.

Çayyolu Mass Housing District 1/1000 scale implementation plans, prepared along with the 1/5000 scale development plans and approved by the Greater Ankara Municipal Council in 1986, also designate the site as "square" that covers an area of 9835 m^2 (Uyar, 2010a; Uyar, 2010b).

In present the proposed Çayyolu Urban Square Project (ÇUSP) area, in reference to the plan decisions adopted in 1986, is located in the center of the district, immediately behind the main street (8th street), where major public transportation takes place. It is surrounded by dense residential areas, such as Koru Sitesi, Konutkent and Oyak Houses. The site is in the middle of social and economic activity nodes. Arcadium shopping center, bazaar area, supermarket, bookstores and cafes are located in the south; sport fields, kinder gardens and theatre are located in the west of the proposed square area. Ali Rıza Bey Forest takes place in the north-western part of the site (Figure 5.2 and 5.3).

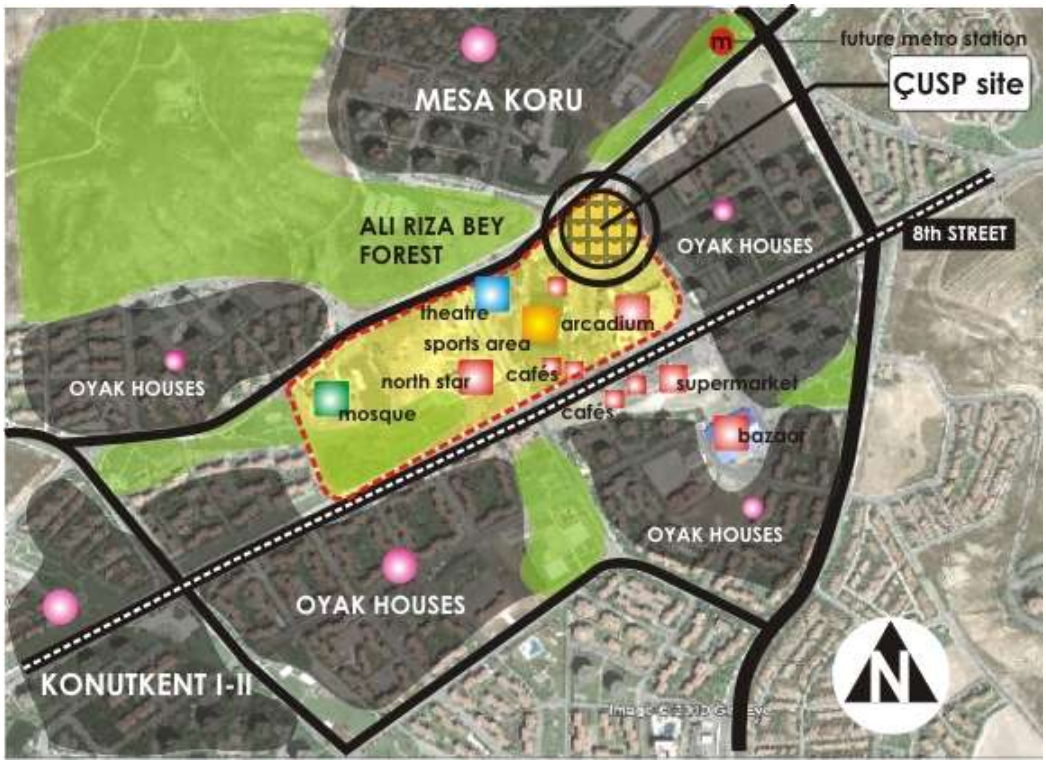


Figure 5.2: Location of the ÇUSP site

Figure 5.3: Detailed illustration of the ÇUSP site and environs

The following section focuses on the project's design and implementation process introducing the information gathered during the interviews carried out with the designer of the project and design professional in Yenimahalle Municipality.

5.1.2 THE PROCESS OF PROJECT DESIGN AND IMPLEMENTATION

Yenimahalle municipality introduced the Çayyolu Urban Square Project (ÇUSP) in March 2009 within the context of "Yenimahalle Urban Squares Project", which was primarily prepared for the local elections campaign (Uyar, 2010a). Taking into consideration the decision taken for the project site in 1986 plan, the municipality initiated square project design studies, and commissioned Prof. Dr. Yalçın Memlük and his team for the preparation of the plans.

After the completion of the plans, in July 2009, plans and model of the project were exhibited in Arcadium Shopping Center for three months. Mayor of the Yenimahalle presented the project to the inhabitants of Çayyolu and inhabitants were asked about their opinions related to the urban square project (Figure 5.4 and 5.5).

Figure 5.4: Mayor of the Yenimahalle presenting the Çayyolu Urban Square Plans, Source: Hürriyet Ankara, http://arama.hurriyet.com.tr/arsivnews.aspx?id=12199441, last accessed data: 17th November, 2009.

Figure 5.5: Mayor of the Yenimahalle presenting the Çayyolu Urban Square model, Source: Hürriyet Ankara, http://arama.hurriyet.com.tr/arsivnews.aspx?id=12048798, last accessed data: 17th November, 2009.

Project was planned to be completed in stages within the year of 2010. However before the initiation of the implementation process, Yenimahalle Municipality and Greater Ankara Municipality had conflicted about the square project and the site. Subsequently, in December 2009, Greater Ankara Municipal Council determined the site as an Amusement Park Area (Uyar, 2010a). Immediately after the declaration of the site as an amusement park by the Greater Ankara Municipality, both inhabitants of the Çayyolu and Yenimahalle Municipality have reacted and sued Greater Ankara Municipality.

My interview with the Honorary President of the 'Çayyolu Platform' and the President of the ÇABA Association puts forward the process of inhabitants' reaction. Çayyolu Platform as the unitary association which is composed of twenty four other associations actively operating in Çayyolu District, brought together the inhabitants of Çayyolu in order to discuss the decisions of the Greater Ankara Municipality for the site. As a result of the discussions, inhabitants of Çayyolu agreed on the square project. They have organized a meeting in December, 2009 to which 500 inhabitants participated (Figure 5.6). After collecting 2500 inhabitants' signatures who protest the Greater Ankara Municipality's decision, they initiated the lawsuit process. They won the case in June 2010 (Uç, 2010). Court cancelled the Greater Ankara Municipality's decision about Amusement Park and in this respect, site remained as the square area.

Figure 5.6: Meeting organized by Çayyolu Platform, Source: Çayyolu Platformu, 2010, p.7.

Although inhabitants won the case, the Yenimahalle Municipality still has not initiate the project implementation process. During the interview held with the head of the Department of Environment within the Public Works and Urbanism Directorate in Yenimahalle Municipality, Uyar (2010a) indicated that the municipality had conflicts with Greater Ankara Municipality regarding the land ownership. On the other hand, according to the Law Number 3030, Greater Ankara Municipality is responsible for the organization of such square areas (Uyar, 2010b).

5. 2 RESEARCH FINDINGS

The study adopts exploratory and quasi-experimental research approaches and uses related methods regarding the aim of the study as to extract humanistic design attributes of a public square by revealing the perceptions of the inhabitants.

This part of the chapter focuses on the research findings of the study organized in five sections. The first section presents the image of a 'good' urban square by introducing the results of the content analysis, subjective descriptions, frequency matrices and shared cognitive maps. The second section introduces the preferred attributes of a 'good' urban square by Çayyolu inhabitants through descriptive statistics. The third section presents results of the multiple regression analyses done in order to find out the relationship between preferences and perceived attributes by Çayyolu inhabitants. This section uses a stepwise multiple regression analyses technique which is to verify the convergence between firstly the tendencies of the generated variables for a 'good' urban square and secondly the ones of the predefined variables. The fourth section introduces the local authority's approach on urban squares. And the last section presents the group differences by introducing group-based perceived attributes, shared maps; and finally the results of the discriminant analysis.

5.2.1 THE IMAGE OF A 'GOOD' URBAN SQUARE

This section of the study concentrates on the image of a 'good' urban square. It deals with the first minor research question of the study related to the users' perception. In this respect, it presents the results of the content analysis regarding the answers of the respondents to the three open-ended questions asked during interviews in order to reveal the perceived attributes of a 'good' urban square of the inhabitants. The first two questions were dealing with the definition of a 'good' urban square of the inhabitants; and the third question were dealing with the illustration of their 'good' urban square. Similarly, this section introduces the content groups of the perceived attributes in the first part and presents the shared map of the inhabitants in the second part.

5.2.1.1 CONTENT GROUPS OF PERCEIVED ATTRIBUTES

This section presents the results of the content analysis which I applied to the participants' subjective descriptions about their perception of a 'good' urban square. Responses revealed ten categories of perceived attributes: (1) geographical location, (2) visual elements, (3) natural elements, (4) layout, (5) emotional appraisals, (6) behavioral attributes, (7) uses and activities, (8) maintenance, (9) people and (10) spatial identity.

The first content group, 'geographical location' includes centrality and accessibility where accessibility covers the pedestrian access, vehicular access, bicycle access and availability of car parking. The second group refers to 'visual elements' including form, size, human scale, seating, paving, color, visual access, public art and lighting. Form includes defined borders, surrounding buildings, orienting elements and relation of the square with the other areas. Size refers to the dimensions of the perceived square as small or large. Seating covers the existence of sitting places, flexible seating and informal seating. Paving includes materials and easy movement. The third group refers to 'natural elements' including presence of natural elements, fresh air, utilizing from sun, access to daylight and shelter and protection. The fourth group, 'layout' refers to the subspaces including playgrounds, sport fields and walking areas. The fifth group, 'emotional appraisals' covers comfort, and safety and security. The sixth group refers to 'behavioral attributes' including relaxing, observing, active engagement, curiosity and discovery, and enjoyment. Active engagement refers to engaging into various activities, spending the day, and existence of seasonal/periodical activities. The seventh group 'uses and activities' include eating and drinking facilities, and vending and shopping opportunities. The eighth group, 'maintenance' covers existence of litter bins and toilet facilities other than the provision of regular maintenance. The ninth group, 'people' refers to the presence of others, and target population. And finally the last group, 'spatial identity' refers to the identification of one's self with the square and seeing square as a symbol. The following Table 5.1 presents the frequency of mentions for each content group and its ratio within the total mentions.

Table 5.1: Content groups of perceived attributes of a 'good' urban square

CONTENT GROUPS	FREQUENCY OF MENTION	RATIO %
Visual Elements	283	**25%**
Behavioral Attributes	208	**18%**
Geographical Location	157	**14%**
Natural Elements	114	10%
Uses and Activities	96	8%
Layout	81	7%
Emotional Appraisals	72	6%
People	67	6%
Maintenance	60	5%
Spatial Identity	13	1%
TOTAL	1151	100%

Mean=115; Median=88.5; Mode=13; Std Dev=80; Minimum=13; Maximum=283; Skewness = 1.124

One fourth of all mentions refer to 'visual elements' (25%) which includes form, size, human scale, seating, paving, color, visual access, public art and lighting attributes. This is followed by 'behavioral' attributes consisting almost one fifth of all mentions (18%). Referring to this content group, participants talked about relaxing, observing, active engagement, curiosity and discovery, and enjoyment. The third mentioned content groups are 'geographical location' (14%) and 'natural elements' (10%) with almost one fourth of all mentions in total. Participants discussed the centrality of the square and its accessibility by all means including vehicles, bicycle, on foot and availability of car parking. Regarding natural elements, they mentioned presence of natural elements, fresh air, utilizing from sun, access to daylight and shelter and protection.

The rest of mentions compose almost one third of all mentions including content groups with almost equal distributions, 'uses and activities' (8%), 'layout' (7%), 'emotional appraisals' (6%), 'people' (6%) and 'maintenance' (5%) and the last and least mentioned content group is 'spatial identity' (1%).

For the ten perceived attributes of a 'good' urban square, frequency of mentions ranged from 13 to 283. The distribution of mentions is positively skewed with a mean of 115 (standard deviation = 80), a median of 88.5, and a mode of 13 (Figure 5.7).

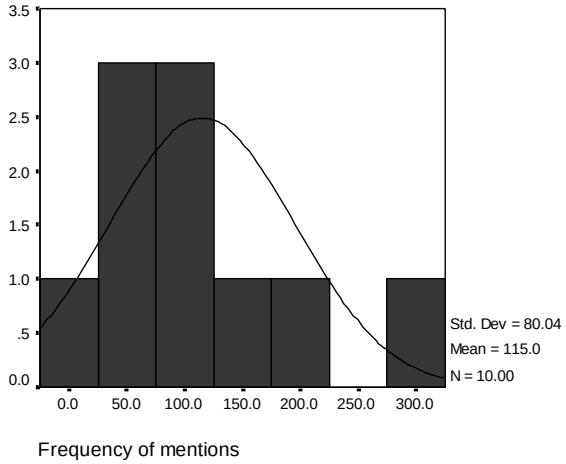


Figure 5.7: Distribution of frequency of mentions

The mean values of generated attributes from participants responses also confirm the findings of the study. Table 5.2 shows 'visual' (mean=6.2; std dev=3.4; maximum=15; minimum=1), 'behavioral' (mean=4.5; std dev=2.8; maximum=13; minimum=1), and 'geographical location' (mean=3.4; std dev=1.2; maximum=6; minimum=1) attributes with the highest means indicating the most mentioned attributes of a 'good' urban square.

Table 5.2: Descriptive statistics of generated perceived attributes

	N	Minimum	Maximum	Mean	Std. Deviation
Visual	46	1.00	15.00	6.1522	3.37288
Behavioral	46	.00	13.00	4.5217	2.82638
Geographical Location	46	1	6	3.39	1.556
Natural Elements	46	.00	9.00	2.4783	1.91763
Uses & Activities	46	.00	6.00	2.0870	1.61694
Layout	46	.00	6.00	1.7609	1.75353
Emotional	46	.00	5.00	1.5652	1.24101
Maintenance	46	.00	5.00	1.3043	1.31436
People	46	.00	4.00	1.4565	1.27726
Spatial Identity	46	.00	2.00	.2826	.62050
Total N (list wise)	46				

In line with the previous research findings (Lynch, 1971; Alexander, 1977; Gehl, 1987; Whyte, 2009; Marcus & Francis, 1998; Shaftoe, 2008; Carmona et al, 2003; Childs, 2004; Tibbalds, 2001), this study reveals 'geographical location', 'visual elements', 'natural elements', 'layout', 'emotional appraisals', 'behavioral attributes', 'uses and activities', 'maintenance' and 'people'. On the other hand, different from the other research, this study also shows that 'spatial identity' constitutes a component in people's image of a good urban square.

5.2.1.1.1 Visual Elements

'Visual elements' is the content group that is most frequently mentioned incorporating a variety of attributes. Covering one fourth of all mentions (25%), visual elements include top three attributes with almost equal ratios namely form (21.5%), seating (21%) and public art (20%). These three attributes constitute more than a half (62.5%) of the all attributes mentioned within the context of visual elements. The rest of the mentions includes attributes as size (13%), paving (15%), lighting (5%), visual access (2%), human scale (1.5%) and color (1%). Table 5.3 presents the frequency of mentions about the attributes within the visual elements context.

Table 5.3: Frequency of mentions of the perceived attributes related to the visual elements

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Form	61	**21.5%**
Seating	60	**21%**
Public art	57	**20%**
Paving	42	15%
Size	37	13%
Lighting	13	5%
Visual access	6	2%
Human scale	4	1.5%
Color	3	1%
TOTAL	283	100%

5.2.1.1.1.1 FORM

Form includes perceived attributes namely, defined borders, surrounding buildings, orienting elements and relation of the square with the other areas. The most frequently mentioned perceived attribute is the defined borders constituting the half (50%) of all the mentions about form. The next most frequently mentioned attribute is the relation of the square with the other areas with a ratio of 28%. The rest of the mentions involve surrounding buildings (15%) and orienting elements (7%). Table 5.4 introduces the frequency distribution of the attributes about form.

Table 5.4: Frequency of mentions of the perceived attributes related to form

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Defined Borders	31	50%
Relation to other areas	17	28%
Surrounding Buildings	9	15%
Orienting Elements	4	7%
TOTAL	61	100%

Considering that visual form is the most mentioned perceived attribute about the physical existence of a particular space, this study argues the essentiality of formal aesthetics for users. Within this context, respondents mentioned defined borders, square's relation to the other areas and buildings, surrounding buildings and orienting elements. In line with many scholars (Carmona et al, 2003; Sitte, 1965; Childs, 2004) , this study confirms that having defined borders or creating a sense of enclosure is a significant component of a 'good' urban square. Table 5.5 involving the quotations from the respondents presents the perceptions about form.

Table 5.5: Sample quotations for form

"I would like to feel that I am in a particular place isolated from the other parts of the city (with surrounding elements, trees etc)."
(Male, 25-65, Economist)
"The area should be well-defined with surrounding buildings and there should be elements (activities, lights etc.) directing me to the place."
(Female, 18-24, Student)
"There should be connections with the other uses (buildings, cafes etc.) but they should be clear and direct; not confusing."
(Female, 25-65, Geological Eng.)
"I would like to have the buildings surrounding the square to be visually and aesthetically organized."
(Female, 25-65, Housewife)
"I would like to have trees and greenery all around the square."
(Male, 25-65, Self-Employment)

5.2.1.1.1.2 SEATING

Seating is one of the most frequently (21%) mentioned attributes of all the visual elements. Great majority of the mentions about seating cover the existence of sitting places (85%). The rest of the mentions include informal seating (12%) and flexible seating (3%). Table 5.6 presents the frequency of mentions for seating.

Table 5.6: Frequency of mentions of the perceived attributes related to seating

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Existence of sitting places	51	85%
Informal seating	7	12%
Flexible seating	2	3%
TOTAL	60	100%

Regarding seating as the second most frequently mentioned perceived attribute within the context of visual elements, this study reveals that existence of sitting places including informal and flexible seating, is a significant component of a 'good' urban square. This

finding corresponds with the previous research (Whyte, 2009; Marcus & Francis, 1998; Childs, 2004; Shaftoe, 2008); particularly consistent with the Whyte's (2009, p.112) indication as 'sitting space is most certainly prerequisite. Whatever the attractions of a space, it cannot induce people to come and sit if there is no place to sit'. Following quotations from the respondents illustrate the stimuli of seating in terms of perception of a 'good' urban square (Table 5.7).

Table 5.7: Sample quotations for seating

"There should be a plenty of sitting elements, benches etc. but these should be well-designed and chic."
(Female, 25-65, Housewife)
"The edges and corners of the square should allow people socialize."
(Male, 25-65, Economist)
"Sitting places should definitely be deliberated. Square should provide a variety of places (benches etc.) to gather and sit. And we should be able sit on the walls or stairs as well."
(Female, 25-65, Research Asst.)
"Instead of abstract urban furniture, there should be nostalgic elements, reminding us of old times with benches in various forms etc."
(Male, 25-65, Architect)
"There should be comfortable sitting places for elderly."
(Female, 65+, Retired)
"There should be nostalgic benches, and places that a group of people can sit together like arbors. There should also be large green areas where people can sit or even lay down."
(Male, 18-24, Student)

5.2.1.1.1.3 PUBLIC ART

Public art is the third most frequently mentioned attributes within the mentions about visual elements. Corresponding with the findings of the previous research (Sitte, 1965; Whyte, 2009; Marcus & Francis, 1998; Childs, 2004; Carmona et al, 2003; Carr et al, 1992; Shaftoe, 2008), this study reveals public art as a remarkable asset that should take place in a square. Table 5.8 introduces the quotations from the respondents about public art supporting this finding of the study.

Table 5.8: Sample quotations for public art

"The center of the square should be empty, open. But there should also be artistic elements around."
(Female, 25-65, Research Asst.)
"There should be a monumental reference point such as a sculpture, piece of art etc."
(Male, 25-65, Economist)
"The square should please the eyes of the people, there should be pieces of art exhibited, monuments or ornamental pools etc."
(Male, 25-65, Mechanical Eng.)
"The square should be structured around a monument, a sculpture, something artistic."
(Female, 25-65, Finance)
"There should be a plenty of pieces of art and architecture in terms of sculptures, monuments or even seating."
(Male, 25-65, Lawyer)
"There should be sculptures."
(Female, 65+, Housewife)
"There should be romantic informative statues, monuments or fountains in the square."
(Male, 65+, Retired Instructor)
"There should be a particular piece of art like a sculpture, a clock tower as the focus of the square."
(Female, 18-24, Student)
"There should be artistic structures, such as sculptures and bird nests."
(Male, 18-24, Student)

5.2.1.1.1.4 PAVING

Paving, covering 15% of the all mentions related to visual elements, refers materials for paving and easy movement. More than half (62%) of the mentions about paving include materials and the rest refers to easy movement (38%). Table 5.9 presents the frequency of mentions related to paving.

Table 5.9: Frequency of mentions of the perceived attributes related to paving

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Materials	26	62%
Easy Movement	16	38%
TOTAL	42	100%

Considering that the character of a hard landscape is related with the material used for surfacing and the major utility of pavement is to provide a 'hard, dry, non-slip surface' (Childs, 2004, p.140; Carmona et al., 2003, p.159), this study confirms the previous research findings. Furthermore, this research reveals that paving referring materials and easy movement, is a component of a 'good' urban square. In line with these following quotations present the respondents perceptions about paving (Table 5.10).

Table 5.10: Sample quotations for paving

"The square should have a robust surface material such as concrete or stone." (Female, 25-65, Housewife)
"The square should be paved properly so that elderly people can easily and comfortably walk around." (Female, 65+, Retired Bank Employee
"Square should definitely be solely hard surfaced, as we can see the examples in many European cities." (Male, 25-65, Bureaucrat)
"There should be a balance in the surface between concrete and greenery." (Female, 18-24, Student)
"The surface of a square should definitely be special; mothers with baby carriages, disabled or elder people's comfortable movement should be provided." (Female, 25-65, Finance)

5.2.1.1.1.5 SIZE

Size refers to the dimensions of the perceived square as small or large. A great majority of mentions (95%) covers 'large' as the dimension. On the other hand, only 5% of the mentions includes small dimensions (Table 5.11).

Table 5.11: Frequency of mentions of the perceived attributes related to size

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Large	35	95%
Small	2	5%
TOTAL	37	100%

Although size of a square depends on its location and context, many scholars (Lynch, 1971; Alexander, 1977; Gehl, 1987) made recommendations about optimum dimensions of squares and plazas both for small and large scales. This study reveals that respondents substantially perceive a 'good' urban square as a large space. Following table introduces quotations from the respondents expressing their definition of the size of a 'good' urban square (Table 5.12).

Table 5.12: Sample quotations for size

"It is such a spacious and large place that I can comfortably wander around."
(Male, 18-24, Executive Asistant)
"It reminds me of a large, empty space but providing activities that we can gather and linger."
(Female, 25-65, Research Asst.)
"I would rather like to have a square in smaller dimensions. I wouldn't like gigantic squares."
(Female, 25-65, Computer Eng.)
"I would like to have a small, warm square."
(Male, 25-65, Civil Eng.)

5.2.1.1.1.6 LIGHTING

Lighting is one of the least frequently mentioned (5%) attributes of the visual elements. In line with the previous research findings (Phillips, 2002; Carmona et al, 2003), this study reveals lighting as a component of a 'good' urban square. Following table introduces the quotations from the respondents about lighting (Table 5.13).

Table 5.13: Sample quotations for lighting

"It should be adequately lit."
(Female, 18-24, Student)
"There may be special lights on the ground of the square."
(Male, 18-24, Executive Asistant)
"I would definitely like to have the square lightened at nights, in order to use at nights as well."
(Female, 25-65, Research Asst.)
"The square area should be properly lightened especially during the night."
(Male, 25-65, Mechanical Eng.)

5.2.1.1.1.7 VISUAL ACCESS

Visual access is identified as one of the least frequently mentioned (2%) attributes within the content group of visual elements. Visual access or the visibility is a complementary attribute according to the findings of the previous research (Whyte, 2009; Marcus & Francis, 1998) implying an input for the accessibility, sense of enclosure, safety and security. In line with these, this study reveals visual access as a component of a 'good' urban square. Respondents' expressions illustrated in the Table 5.14 introduces the perceptions about visual access.

Table 5.14: Sample quotations for visual access

"I wouldn't like to see or hear the noise of cars passing through the street close to the square or to watch the car-parking areas, so that there should be elements (trees etc.) around the square preventing such scenes."
(Female, 25-65, Research Asst.)
"Square should incorporate such elements making us understand that there it is."
(Male, 18-24, Student)

5.2.1.1.1.8 HUMAN SCALE

Human scale is one of the least frequently mentioned (1.5%) attributes within the visual elements context. Although human scale is one of the major components of a 'good' urban square according to many scholars (Tibbalds, 2001; Shaftoe, 2008; Childs, 2004), this study reveals that human scale is not one of the attributes that respondents primarily perceive. Table 5.15 presents the quotations from the respondents referring to human scale.

Table 5.15: sample quotations for human scale

"It shouldn't be a crowded, exhausting place; there should be smaller structures around."
(Male, 18-24, Student)
"It should not only be a large void, it should be in human scale. The surrounding buildings should not preclude the square."
(Female, 25-65, Research Asst.)

5.2.1.1.1.9 COLOR

Results of the content analysis present that color is one of the least frequently mentioned (1%) attributes within visual elements. Previous researches put forward color as a complementary attribute creating a joyful environment (Marcus & Francis, 1998; Shaftoe, 2008). In line with this, respondents related color with creating an identical and pleasure giving place. Following quotations from the respondents express the perceptions of inhabitants about color (Table 5.16).

Table 5.16: Sample quotations for color

"It should be a distinct, colorful space cheering us up and making us feel relieved." (Female, 18-24, Student)
"Color is important within the entire square in terms of creating a special environment." (Female, 18-24, Student)

5.2.1.1.2 Behavioral Attributes

The content group of 'behavioral' attributes consisting almost one fifth of all mentions (18%) refers to relaxing, observing, active engagement, curiosity and discovery, and enjoyment. Active engagement covers more than a half (63%) of the all mentions about behavioral attributes. Following this, the attributes enjoyment (13.5%) and relaxing (12.5) constitute one fourth of the mentions in total. Finally, the rest of the mentions refers to curiosity and discovery (7%) and observing (4%). Table 5.17 presents the frequency distribution of mentions related to the behavioral attributes.

Table 5.17: Frequency of mentions of the perceived attributes related to behavioral attributes

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Active engagement	131	63%
Enjoyment	28	13.5%
Relaxing	26	12.5%
Curiosity and discovery	15	7%
Observing	8	4%
TOTAL	208	100%

Active engagement, constituting the largest portion of all mentions about behavioral attributes, refers to attributes as engaging into various activities, spending the day, and existence of seasonal/periodical activities. In this regard, the majority of the mentions about active engagement refers to engaging into various activities (85%). The rest of the mentions include spending the day (7.5%) and existence of seasonal/periodical activities (7.5%) with equal distributions. Table 5.18 introduces the frequency distribution of mentions related to the active engagement.

Table 5.18: Frequency of mentions of the perceived attributes related to active engagement

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Engaging into Various Activities	111	85%
Spending the day	10	7.5%
Existence of seasonal/periodical activities	10	7.5%
TOTAL	131	100%

The findings of the study about the behavioral attributes correspond with the existing literature. In line with many scholars (Gehl, 1987; Whyte, 2009; Carr et al, 1992; Carmona et al, 2003; Francis M., 2003; Shaftoe, 2008), this study argues that provision of 'activities for varying degrees of engagement'; 'observing others'; 'feeling of relaxation'; 'entertaining and feeling of joy'; and 'feeling of curiosity stimulating discovery' will make people come to a place, regarding behavioral attributes as components of a 'good' urban square. Following quotations from the respondents illustrates this finding of the study (Table 5.19).

Table 5.19: Sample quotations for behavioral attributes

"It should be a place where I can relax; and at the same time I should be able to spend my whole day in the square with the provision of a variety of activities like music performances, shows etc."

(Female, 25-65, Housewife)

"I would like to feel relaxed, unbrace myself, refresh and find peace."

(Female,25-65, Housewife)

Table 5.19 (Continued)

"I would like to relax and feel peaceful within the green areas, colorful flowers, water elements provided in the square."

(Male, 25-65, Mechanical Eng.)

"I should be able to observe the environment and the other people."

(Female, 25-65, Research Asst.)

"There should be people around and a plenty of activities; not only cafés and shops, but also street performers etc."

(Female, 18-24, Student)

"It should be an interesting place, attracting us every season and every time. It should provide activities such as concerts, exhibitions, competitions."

(Female, 18-24, Student)

"There should be places, facilities and activities serving for people in order to linger and spend time like concerts, exhibitions."

(Male, 65+, Retired)

"A square should host social, cultural facilities and artistic activities such as exhibitions, fairs, music and theatre performances. Furthermore, it should be the place where people gather to make their voices heard in meetings."

(Male, 65+, Journalist)

"It should be an interesting and entertaining place that I would be willing to go even on Sundays. There may be activities differentiating each week, that people may participate individually like concerts, competitions etc."

(Female, 25-65, Administration)

5.2.1.1.3 Geographical Location

Geographical location covering 14% of all the mentions, refers to two of the most frequently mentioned attributes namely centrality and accessibility. One fourth of all the mentioned attributes about the 'geographical location' covers centrality and three fourths of the mentions refer to accessibility (Table 5.20). Pedestrian access constitutes a half of the all mentions about accessibility. Vehicular access follows this with a ratio of 39% and bicycle access with a ratio of 7%. Availability of car parking comes forward as the least mentioned attribute with a ratio of 4%. Table 5.21 presents the frequency of mentions of these perceived attributes within the context of accessibility.

Table 5.20: Frequency of mentions of the perceived attributes related to the geographical location

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Centrality	40	25%
Accessibility	117	75%
TOTAL	157	100%

Table 5.21: Frequency of mentions of the perceived attributes related to the accessibility

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Pedestrian Access	58	50%
Vehicular Access	46	39%
Bicycle Access	8	7%
Car Parking Opportunity	5	4%
TOTAL	117	100%

In line with the previous research (Whyte, 2009; Shaftoe, 2008; Tibbalds, 2001; Marcus & Francis, 1998), this study confirms that the 'geographical location' is a significant component of a 'good' urban square. Furthermore this research shows that the concept of geographical location implies an accessible and mixed-use central location including availability of car parking. The following quotations from the respondents illustrate this (Table 5.22).

Table 5.22: Sample quotations for geographical location

"A 'good' urban square should be in the center of the city."

(Male, 25-65, Economist)

"A 'good' urban square should be such a place that I can find anything around."

(Male, 25-65, Architect)

"A 'good' urban square is at the heart of the city."

(Male, 25-65, Civil Eng.)

Table 5.22 (Continued)

"A 'good' urban square should be in a 'lively', central location, providing a variety of uses around."

(Female, 25-65, Business Admin.)

"A 'good' urban square is the heart of the city where all the streets open up to this area."

(Male, 25-65, Bureaucrat)

"I would rather walk to such an urban square; but as far as I am not able to go everywhere on foot, I would like to reach the square easily by bus or dolmuş. I should easily go to the place and turn back home."

(Female, 25-65, Housewife)

"A 'good' urban square should be easily accessed from all parts of the city."

(Male, 65+, Retired Teacher)

"People should easily and comfortably access to the square in a very short time."

(Female, 25-65, Shopkeeper)

"There should be car-parking areas around or close to the square."

(Male, 65+, Retired Instructor)

"I should go to the place with my car, and there should be car-parking areas."

(Female, 25-65, Environmental Eng.)

"I should be able to walk there or go there with my bike, so that there should be a parking place for bikes."

(Male, 18-24, Student)

5.2.1.1.4 Natural Elements

The content group of 'natural elements' covers 10% of the all mentions referring to such attributes as presence of natural elements, fresh air, utilizing from sun, access to daylight and shelter and protection. Presence of natural elements constitutes the majority of the mentions about natural elements with a ratio of 80%. On the other hand, rest of the mentions includes shelter and protection with a ratio of 9%; fresh air with a ratio of 5%; access to daylight with a ratio of 3.5%; and finally utilizing from sun with a ratio of 2.5%. Table 5.23 shows the distribution of frequency of mentions for natural elements.

Table 5.23: Frequency of mentions of the perceived attributes related to natural elements

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Presence of Natural Elements	91	80%
Shelter and Protection	10	9%
Fresh Air	6	5%
Access to Daylight	4	3.5%
Utilizing from Sun	3	2.5%
TOTAL	114	100%

Regarding the significant role of natural elements about human health and well-being, aesthetics, limiting a space and creating a more convenient microclimate, this study argues the essentiality of natural elements for users. Within this context, results of the content analysis present that almost every respondent mentioned natural elements during interviews including presence of natural elements, shelter and protection, fresh air, access to daylight and utilizing from sun. This finding is also consistent with the existing literature. In line with many scholars (Whyte, 2009; Marcus & Francis, 1998; Carmona et al, 2003; Shaftoe, 2008), this study confirms natural elements as components of a 'good' urban square. Following quotations from the respondents illustrate this (Table 5.24).

Table 5.24: Sample quotations for natural elements

"Greenery and natural beauty is the most important component of the square, there should be proper arrangement of flowers, bushes and trees."

(Female, 25-65, Housewife)

"The square should definitely provide a reasonable amount of green areas."

(Male, 25-65; Economist)

"It should have a very good landscape design."

(Female, 25-65, Advertising Business)

"I would like to relax and feel peaceful within the green areas, colorful flowers, water elements provided in the square."

(Male, 25-65, Mechanical Eng.)

Table 5.24 (Continued)

"I would like to have green areas within the context of the square, in terms of limiting and defining it, without interrupting the general character and identity of the square."

(Male, 25-65, Architect)

"It should be a place that I can sit under the shadowing trees and benefit from the open fresh air and sun."

(Female, 65+, Housewife)

"It should provide a spacious space with access to fresh air and green areas, fountains and trees should surround the square; proper elements should be provided for changing climatic conditions."

(Male, 65+, Retired Inst.)

"It should be usable in every season of the year, even in cold winters. There should be shelters for excess sun, and protection from cold, wind, rain etc."

(Female, 18-24, Student)

"I would like to benefit from the fresh air and sun in the square."

(Male, 18-24, Student)

"The majority of the square surface should be composed of green areas including large trees and lawn where we can sit and lay down."

(Male, 18-24, Student)

5.2.1.1.5 Uses and Activities

The content group uses and activities covers 8% of all mentions including eating and drinking facilities, and vending and shopping opportunities. More than a half (61.5%) of all the mentions about uses and activities covers eating and drinking facilities; and rest of the mentions (38.5%) includes vending and shopping opportunities (Table 5.25).

Table 5.25: Frequency of mentions of the perceived attributes related to uses and activities

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Eating & drinking facilities	59	61.5%
Vending/shopping opp.	36	38.5%
TOTAL	96	100%

This finding of the study corresponds with the previous research findings (Whyte, 2009; Marcus & Francis, 1998; Shaftoe, 2008) regarding that provision of food and drinking facilities together with vending/shopping opportunities is essential for a 'good' urban square. Since these opportunities are regarded as the major 'people attractors' of a place in literature, similarly respondents mentioned that existence of such uses and activities in the square stimulates them to use the place. Table 5.26 introduces the quotations from the respondents illustrating the perceptions of the respondents about uses and activities.

Table 5.26: Sample quotations for uses and activities

"The square should be the place where social life reaches its highest level by the provision of shopping, eating, entertainment and recreational activities all together."
(Male, 25-65, Bureaucrat)
"There should be small cafés and shopping opportunities including even a pharmacy in order to meet our daily needs."
(Female, 25-65, Housewife)
"Although the square should be away from commercial concerns, there may be small teahouses."
(Male, 25-65, Self-employment)
"There should be cafés, small stalls etc. enabling us loiter."
(Female, 25-65, Research Asst.)
"There should be such places as cafes, patisseries and pubs serving for people to enjoy themselves."
(Male, 65+, Retired)
"It should not be only an empty space, it should include small shops, cafés, restaurants etc."
(Male, 18-24, Student)

5.2.1.1.6 Layout

The content group 'layout' with a ratio of 7% within the total mentions, refers to the subspaces including playgrounds, sport fields and walking areas. Half of the mentions (52%) about layout covers presence of subspaces. One fifth of the mentions (20%) refers to walking areas. Playgrounds and sport fields respectively cover 17% and 11% of the mentions about layout. Table 5.27 presents the frequency of mentions related to the layout of the square.

Table 5.27: Frequency of mentions of the perceived attributes related to layout

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Presence of subspaces	43	52%
Walking areas	16	20%
Playgrounds	14	17%
Sport fields	9	11%
TOTAL	82	100%

This study reveals subspaces including walking areas, playgrounds, and sport fields within the context of layout attributes, as the components of a 'good' urban square. This finding of the study corresponds with the previous research findings (Whyte, 2009; Marcus & Francis, 1998) implying that people prefer to use squares which provides a variety of spaces. Quotations from the respondents presented in the Table 5.28 supports this finding of the study.

Table 5.28: Sample quotations for layout

"Sport facilities should be provided within the square."
(Male, 25-65, Self-employment)
"There should be a plenty of small areas for a variety of activities generated individually or by a group of people."
(Female, 25-65, Administration)
"There should be walking areas and special areas for elderly."
(Male, 65+, Retired)
"It should be a place providing playgrounds that I can go with my grandchildren."
(Female, 65+, Retired Bank Employee)
"It should provide a variety of spaces within itself for example with sitting places allowing some to play guitar, some chatting and some other to play games etc."
(Female, 25-65, City Planner)
"There may be playgrounds for children, sport fields, walking areas and checkerboards areas etc. in the square."
(Male, 18-24, Executive Asst.)

5.2.1.1.7 Emotional Appraisals

The content group referring to emotional appraisals covers the 6% of all the mentions about a 'good' urban square. Almost one third (35%) of the total mentions about emotional appraisals include safety and security; and two third (65%) of the mentions include comfort. Table 5.29 expresses the frequency distribution of the mentions related to emotional appraisals.

Table 5.29: Frequency of mentions of the perceived attributes related to emotional appraisals

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Comfort	47	65%
Safety and Security	25	35%
TOTAL	72	100%

This finding of the study corresponds with the findings of the previous research (Carr et al, 1992; Whyte, 2009; Carmona et al, 2003; Shaftoe, 2008), regarding comfort, and its major constituent safety and security as primary components of a 'good' urban square. The quotations from respondents presented in Table 5.30 reveal that respondents relate their definitions of a 'good' urban square with the provision of safety and security, and provision of comfort separately. While mentioning physical elements for comfort, respondents solely expressed the provision of safety and security and mainly related this with nighttime lighting. Following quotations from the respondents illustrate this finding of the study (Table 5.30).

Table 5.30: Sample quotations for emotional appraisals

"There should be comfortable benches in terms of both design and material, that are convenient for all seasons."

(Female, 18-24, Student)

"It should be a comfortable place that we can spend longer time."

(Female, 25-65, Research Asst.)

"It needs to be a comfortable and safe place that we can spend time with our families."

(Male, 25-65, Environmental Eng.)

Table 5.30 (Continued)

"If there are other people in the square I would be more comfortable, it would make me feel safe."

(Female, 25-65, Housewife)

"The square should be safe, clean and well-maintained; and that it needs to be properly lightened."

(Female, 25-65, Executive Asst.)

"It should be a nice, well-maintained, clean, landscaped square, without security problems which would disturb people."

(Male, 25-65, Graphic Designer)

"The square should be a large, spacious area paved properly so that elderly people can easily and comfortably walk around. There should be a plenty of seating and places for children that they can play comfortably."

(Female, 65+, Retired Bank Employee

"The square area should be properly lightened especially during the night."

(Male, 25-65, Mechanical Eng.)

5.2.1.1.8 People

Results of the content analysis present that the content group of 'people' covers 6% of all mentions. Referring to people, respondents mentioned the presence of others, and target population. Majority of the mentions are about the target population with a ratio of 89.5%; and the rest of the mentions (10.5%) refers to the presence of other people as presented in Table 5.31.

Table 5.31: Frequency of mentions of the perceived attributes related to people

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	PERCENTAGE %
Target population	60	89.5%
Presence of other people	7	10.5%
TOTAL	67	100%

Many scholars (Whyte, 2009; Marcus & Francis, 1998; Montgomery, 1998; Shaftoe, 2008) introduce presence of people and target population as complementary attributes to a variety of other attributes in terms of attracting more people, creating vitality and sense

of safety and security, and as the consideration of the diversity of user groups. In this respect, findings of this study revealed 'people' as a component of a 'good' urban square. Following quotations from the respondents presented in Table 5.32 supports the findings of the study.

Table 5.32: Sample quotations for people

"It would better attract young population in order to be a lively place."
(Female, 25-65, Advertising Business)
"It should be a place both for parents and children, providing for example playgrounds for children and places (like cafés) close to these areas for parents."
(Female, 25-65, Environmental Eng.)
"There should be places cafés etc. special for elder people."
(Male, 65+, Retired)
"It should be a place providing playgrounds that I can go with my grandchildren. I mean, it should be a place that women can comfortably go and sit there."
(Female, 65+, Retired Bank Employee)
"It should be open to all the people from different age groups, genders and physical, social, cultural and economic conditions."
(Male, 25-65, Mechanical Eng.)
"There should be regular activities, that brings people: elderly, young regularly to the place."
(Female, 25-65, Shopkeeper)
"It should be able to serve for each age group. There should not only be playgrounds for children, it should provide places for us all."
(Female, 18-24, Student)
"There should not just be shops or cafés, there should be people around for a lively space."
(Female, 18-24, Student)
"It is important for me to have a crowded square, it would make feel safe and secure."
(Female, 25-65, Housewife)

5.2.1.1.9 Maintenance

Maintenance is the content group that covers 5% of all the mentions, including existence of litter bins and toilet facilities other than the provision of regular maintenance. Provision of regular maintenance constitutes the majority of the mentions about maintenance with a ratio of 87%. On the other hand, rest of the mentions refer to the existence of toilet facilities (10%) and existence of litter bins (3%). Table 5.33 presents the frequency distribution of mentions related to maintenance.

Table 5.33: Frequency of mentions of the perceived attributes related to maintenance

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Regular maintenance	52	87%
Toilet facilities	6	10%
Existence of Litter bins	2	3%
TOTAL	60	100%

In line with the previous research findings (Marcus & Francis, 1998; Shaftoe, 2008), this study reveals maintenance as a component of 'good' urban square. Respondents specifically mentioned provision of litter bins and toilet facilities which are already the constituents of regular maintenance. On the other hand, they mentioned that well-maintained squares as more pleasure giving ones. Table 5.34 presents the quotations from the respondents expressing these findings of the study.

Table 5.34: Sample quotations for maintenance

"Hygiene is very important in a square; so that regular clean-ups and adequate litter bins should definitely be provided."

(Female, 25-65, Housewife)

"It should be clean and well-maintained."

(Male, 18-24, Executive Asst.)

"It should definitely be hygienic and provide adequate and clean toilet and baby care facilities."

(Female, 25-65, Finance)

"It should be well-maintained regarding the green areas, repairs etc. and clean. There should be special team for these."

(Male, 25-65, Mechanical Eng.)

"It should be well-organized and maintained by the municipality, and provide facilities for basic needs such as toilets."

(Male, 25-65, Self-employment)

"There should be regular maintenance."

(Male, 65+, Retired Inst.)

5.2.1.1.10 Spatial Identity

Spatial identity is the least frequently mentioned content group having 1% of all mentions. It includes mentions as the identification of one's self with the square and seeing square as a symbol. Seeing square as a symbol covers more than a half (61.5%) of the mentions about spatial identity and identification one's self with the square covers the rest of the mentions (38.5%) (Table 5.35).

Table 5.35: Frequency of mentions of the perceived attributes related to spatial identity

MENTIONED ATTRIBUTES	FREQUENCY OF MENTIONS	RATIO %
Square as a symbol	8	61.5%
Identification of one's self	5	38.5%
TOTAL	13	100%

Different from the other research, this study reveals spatial identity as a component of a 'good' urban square image of the inhabitants. Some of the respondents defined square as a symbol within a city/town representing a variety of phenomena and making it recognizable and memorable. Some other respondents related themselves and community that it serves, with the square in terms of sense of belonging. Following quotations represents this finding of the study (Table 5.36).

Table 5.36: Sample quotations for spatial identity

"It should be remembered when thinking of squares in a city or a town. It should be a symbolic meeting point."

(Female, 18-24, Student)

"Squares constitute the identity of a city, serving as symbols with the structures they include like monuments."

(Male, 25-65, Bureaucrat)

"It should have a strong, grandeur image with Atatürk statues and monuments about independence."

(Male, 25-65, Computer Eng.)

"It should belong to the people where it is located."

(Female, 18-24, Student)

"I would like to feel like square belongs to me with its special ambiance."

(Male, 25-65, Civil Eng.)

5.2.1.2 SHARED COGNITIVE MAP OF ÇAYYOLU INHABITANTS

This section of the study presents the synthesis of the respondents' maps for a 'good' urban square that are generated through the interviews. Respondents mostly included visual elements referring in common, a central monumental structure and existence of other artistic elements, seating places, paving materials, and lighting items. In terms of natural elements, they illustrated trees and green areas generally surrounding the square; they also expressed the incorporation of flowers and water elements (such as fountains and pools).

Respondents included subspaces regarding various activity areas, platforms, stages, playgrounds and sport fields. For uses and activities they demonstrated cafés, restaurants and shopping structures generally along the edges of the square. Toilet facilities and litter bins are also included in reference to maintenance. Car parking areas and bicycle parks are presented while referring accessibility. Respondents put emphasis on the entrance/exit of the square as well as the provision of connections with the surrounding uses (theatre, shopping mall, green areas etc.). Spatial identity is indicated related to the monumental structure.

Respondents illustrated physical qualities, commonly referring to monuments and sculptures, cafés, benches, trees and green areas, activity areas and playgrounds. However, they did not specify the attributes related to their emotional appraisals or particular behavioral attributes. Similarly they did not express attributes about 'people', except from the mentions about user groups during the illustration of subspaces (such as playgrounds for children).

Figure 5.8 and Figure 5.9 present the shared cognitive map for a 'good' urban square generated by the respondents maps.

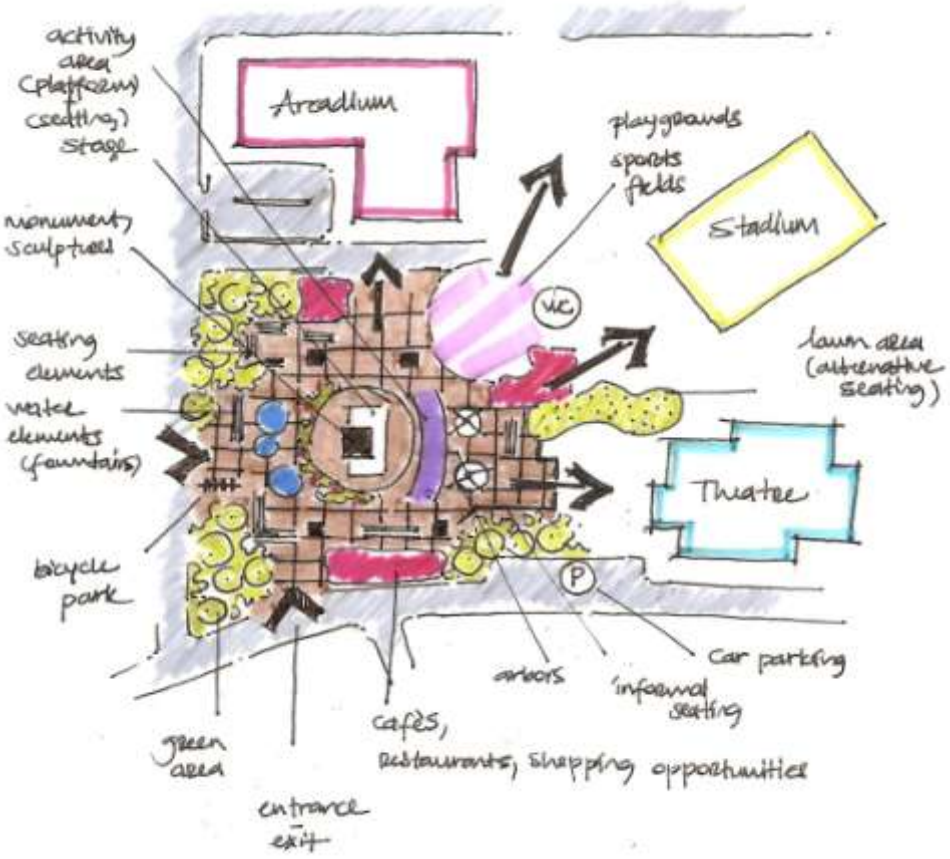


Figure 5.8: Conceptual diagram of shared cognitive map

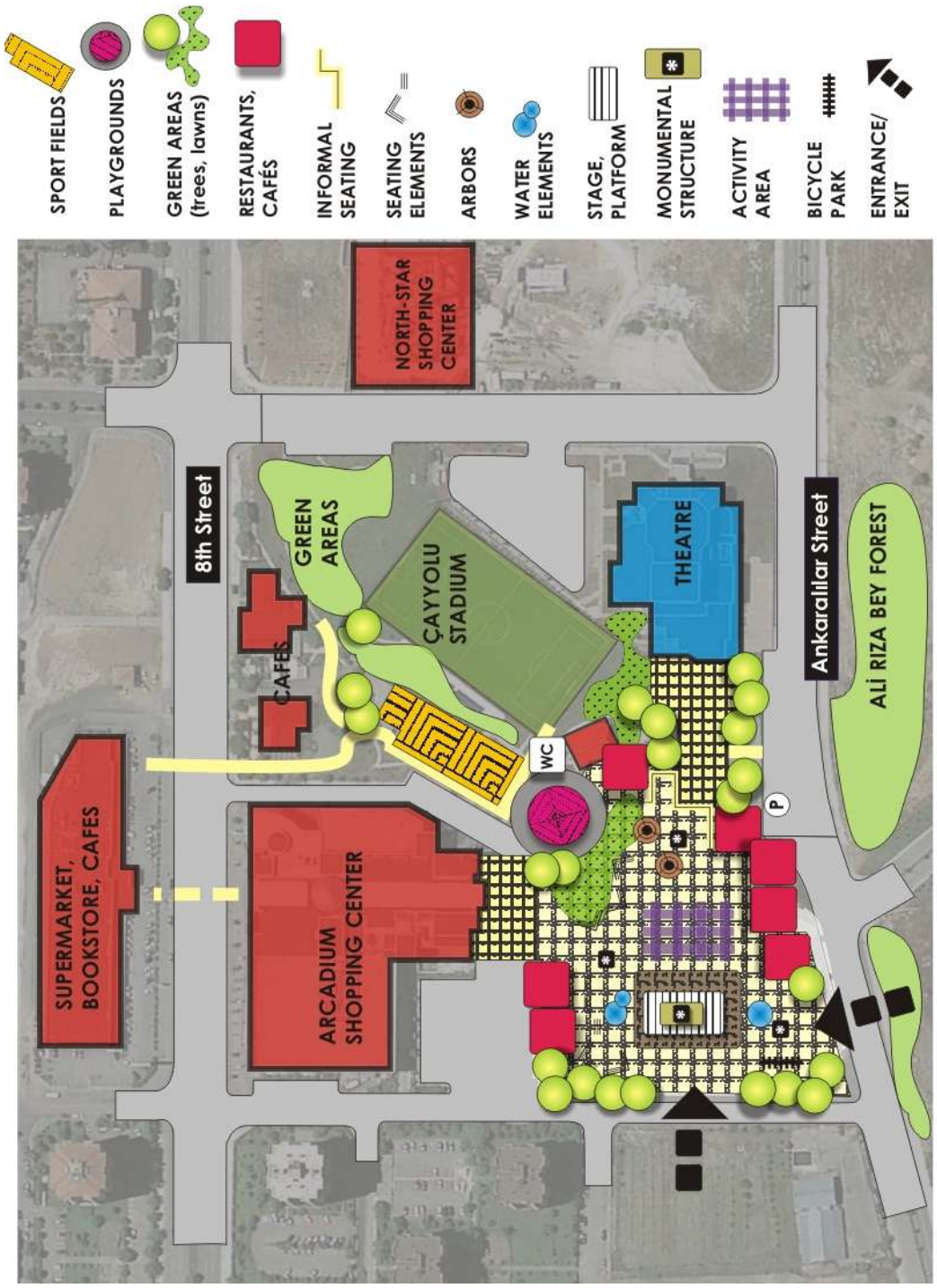


Figure 5.9: Detailed version of shared cognitive map for a 'good' urban square

5.2.2 PREFERRED ATTRIBUTES OF A 'GOOD' URBAN SQUARE BY ÇAYYOLU INHABITANTS

The previous section revealed the perceived attributes of a 'good' urban square. To support these results, this section introduces descriptive statistics conducted in order to test the predefined perceived attributes found in literature. In line with the aim of responding the second minor research question of the study, which in the first place investigates the preferred attributes of a 'good' urban square; this part of the study introduces the preferred attributes of a 'good' urban square by Çayyolu inhabitants regarding the results of the Lykert-scale ratings obtained from the survey.

In the second part of the survey, respondents rated the predefined variables of a 'good' urban square that are presented as statements, according to their definition of a 'good' urban square. In reference to the literature reviewed four major categories of perceived attributes (geographical, physical, behavioral/psychological, and managerial) and the attributes taking place under these categories constituted the basis of variables used in the research. Category of geographical attributes is composed of location and accessibility. Physical (visual and aesthetic) elements' category cover the attributes such as form, size, seating, hard and soft landscaping, shelter and protection, subspaces, lighting, human scale and public art. Comfort, safety and security, relaxation, passive and active engagement, discovery and joy are the attributes taking place under the category of behavioral and psychological attributes. Finally, the category of managerial attributes includes uses and activities, eating and drinking facilities, vending opportunities and maintenance.

During analysis of the descriptive statistics, these variables are grouped according to the content groups revealed in the previous section. (Geographical location including location and accessibility; Visual Elements including form, size, seating, hard landscaping, lighting, human scale and public art; Natural Elements including soft landscaping, shelter and protection; Layout including subspaces; Emotional Appraisals including comfort, safety and security; Behavioral Attributes including relaxation, passive and active engagement, discovery and joy; Uses and Activities including eating and drinking facilities, and vending opportunities; Maintenance including maintenance; People including uses and activities [target population])

Descriptive statistics show 'maintenance' (mean=6.8; std dev=.41; maximum=7.00; minimum=5.00), 'emotional appraisals' (mean=6.7; std dev=.48; maximum=7.00;

minimum=4.50), and 'geographical location' (mean=6.2; std dev=.72; maximum=7.00; minimum=4.50) attributes with the highest means indicating the preferred attributes of a 'good' urban square. Table 5.37 introduces the descriptive statistics of perceived attributes found in previous research.

Table 5.37: Descriptive statistics of perceived attributes found in previous research

	N	Minimum	Maximum	Mean	Std. Deviation
Maintenance	46	5.00	7.00	6.8478	.41991
Emotional	46	4.50	7.00	6.7500	.48016
Location	46	4.50	7.00	6.2174	.72765
Behavioral	46	2.80	7.00	5.9826	.86803
Layout	46	1.00	7.00	5.9783	1.40616
Natural Elements	46	2.75	7.00	5.9293	.96848
People	46	1.00	7.00	5.8913	1.60870
Visual	46	4.36	6.45	5.3063	.58199
Uses & Activities	46	1.00	7.00	5.1413	1.92834
Total N (listwise)	46				

Descriptive statistics indicate that all attributes are rated high. This confirms that the findings of the previous research on perceived attributes of a 'good' urban square apply to the Çayyolu case. According to the content analysis presented in previous section, respondents' top three most frequently mentioned attributes are visual elements, behavioral attributes and geographical location. Regarding the preferences of the respondents, rating results show that, respondents mostly urge upon maintenance, emotional appraisals and geographical location. Geographical location appears as the common attribute in both cases. On the other hand, while referring more physical qualities and human activities for the definition of a 'good' urban square; respondents' preferences rather highlighted more intangible attributes (such as comfort, safety and security in emotional appraisals; hygiene in maintenance) during Lykert-scale ratings. Moreover, different from the previous research, this study reveals spatial identity as a component of a 'good' urban square. Besides, results of the content analysis indicate that the complementary attributes namely color and visual access within the content group of visual elements; and presence of other people are significant variables taking part in a 'good' urban square.

5.2.3 RELATIONSHIP BETWEEN PREFERENCE AND PERCEIVED ATTRIBUTES BY ÇAYYOLU INHABITANTS

In line with the aim of the previous section, this part presents the analytical findings to the second minor research question of the study. Respectively, it shows if the perceived attributes explain users' preferences with respect to their definition of a 'good' public square.

In this respect, I conducted stepwise multiple regression analyses to verify the convergence between the tendencies of the generated variables for a 'good' urban square and the ones of the predefined variables. To do that, I produced two regression models. The first model demonstrates how much the predefined attributes in the literature explain Arcadium users' preference. This analysis reveals three significant attributes (emotional appraisals, geographical location, maintenance) that exactly correspond with the descriptive statistics of users' ratings for previously defined attributes (maintenance, emotional appraisals, geographical location with the highest means). This may imply that the Çayyolu inhabitants prefer using Arcadium in relation to their definition of a 'good' urban square. Thus, the second model is constructed to reveal how much the generated attributes of a 'good' public square explain Arcadium users' preference for Arcadium indoor square.

In the first model, three of the ten attributes made significant contribution to explaining the remaining variance in Arcadium users' preference. These attributes include 'emotional appraisals', 'geographical location', and 'maintenance'. The variables made similar contribution to explaining the variance in preference (p's < 0.05) (See Section 2 in Appendix D for more results of this analysis). When considered all, they explained 60 percent of variance in users' preference (Table 5.38). Although this shows that other variables also played a major role in explaining the users' preference, the results of this analysis are worth to be reported due to the exploratory nature of the study.

Table 5.38: Result of Regression Analysis of the Relationship between Preference and Perceived Attributes

VARIABLES	R^2	R^2change	b	t	p
Emotional	.503	.503	.729	6.421	.000
Location	.555	.052	.322	3.421	.003
Maintenance	.617	.062	-.487	3.126	.013
(constant)			1.359	1.419	.163

Standard Error = 1.03

Adjusted R^2= .589

df1=1; df2=42

For model: F = 6.804, p < .05

Then, I analyzed the multicollinearity between variables. Table 5.39 shows moderate to substantial correlation between the three variables of the model (r's<0.64). This shows that multicollinearity does not constitute significant problem in this model. However, other variables including 'natural elements' and 'behavioral attributes' strongly correlate (r's> .70) with each other. This may indicate that respondents relate human activities to the presence of natural elements.

Table 5.39: Pearson Correlation for preference for Arcadium inner square in relation to perceived attributes

	DV	IV1	IV2	IV3	IV4	IV5	IV6	IV7	IV8	IV9
PREFERENCE(DV)	1.000									
Location (IV1)	.490	1.000								
Visual (IV2)	.420	.306	1.000							
Natural (IV3)	.391	.144	.633	1.000						
Layout (IV4)	.259	.452	.618	.401	1.000					
Emotional (IV5)	.709	.396	.454	.465	.346	1.000				
Behavioral (IV6)	.619	.254	.640	.731	.343	.703	1.000			
Use (IV7)	.294	.454	.471	.218	.540	.489	.322	1.000		
Maintenance (IV8)	.246	.473	.365	.220	.406	.535	.246	.528	1.000	
People (IV9)	.002	.273	.453	.075	.535	-.001	.006	.411	.228	1.000

In line with previous research findings (Whyte, 2009; Marcus & Francis, 1998; Carr et al, 1992; Tibbalds, 2001; Carmona et al, 2003; Shaftoe, 2008), multiple regression analysis reveals emotional appraisals, geographical location and maintenance as the significant variables obtained from literature explaining the Arcadium users' preference. Many scholars (Marcus & Francis, 1998; Shaftoe, 2008; Tibbalds, 2001) put emphasis on the central, mixed-use and accessible locations. Emotional appraisals, referring to comfort, and safety and security, are regarded as major components contributing primarily to the psychological and secondarily to the physical satisfaction of the users by creating a pleasure giving environment (Carmona et al, 2003; Shaftoe, 2008). Shaftoe (2003) argues that maintenance also makes significant contributions to offering a pleasure giving environment, with the provision of hygiene and regular care. Following quotations presented in Table 5.40, 5.41, 5.42 support these findings.

Table 5.40: Sample quotations for geographical location

"Square should be located in the city center or in a central place and should be away from the traffic; but at the same time it should be easily accessed."

(Male, 65+, Retired Inst.)

"I would rather walk to such an urban square; but as far as I am not able to go everywhere on foot, I would like to reach the square easily by bus or dolmuş. I should easily go to the place and turn back home."

(Female, 25-65, Housewife)

"It should be in a central location, where I would not be bothered to walk there."

(Male, 18-24, Student)

Table 5.41: Sample quotations for emotional appraisals

"It needs to be a comfortable and safe place that we can spend time with our families."

(Male, 25-65, Environmental Eng.)

"It should be a large, comfortable and safe place that I can stay there with my mind at peace."

(Female, 65+, Retired)

"I would like to sense the feelings of serenity, comfort and safety. In this sense, public peace and public order should definitely be provided."

(Male, 25-65, Lawyer)

Table 5.42: Sample quotations for maintenance

"Provision of regular clean ups and special care of the place is very important; because people would not care the place if the administration doesn't care."
(Male, 25-65, Computer Prog.)
"The green areas, flowers should be cared properly, otherwise it would become meaningless to be in that place as it won't please people."
(Female, 65+, Retired)
"There should be elaborative maintenance facilities, providing a special care for example on writings or broken stuff."
(Female, 18-14, Student)

The multicollinearity analysis introduces the strong correlation between natural elements and behavioral attributes which may signify that such behavioral attributes as active engagement with the activities, observing others, relaxing, curiosity and discovery, and entertaining is associated with natural elements including the presence of trees, flowers, green areas as well as access to fresh air, and daylight. Following quotations may express this relationship between human activities and natural elements (Table 5.43).

Table 5.43: Sample quotations for relation between behavioral attributes and natural elements

"Square should definitely include green areas, like trees and flowers, this is what would make me relaxed."
(Male, 25-65, Mechanical Eng.)
"Reaching fresh air is the most important thing; but to do this, shelter and protection elements should be provided in order to make the square usable in every season for a variety of activities."
(Female, 18-24, Student)
"I should be able to rest and relax while watching around under the shadowing trees, and at the same time utilizing from sun."
(Female, 65+, Housewife)

In the second model, one of the ten attributes made significant contribution to explaining the remaining variance in users' preference for Arcadium's indoor square. This attribute includes the 'presence of people'. The variable made similar contribution to explaining the variance in preference (p's < 0.05) (See Section 1 in Appendix D for more results of this analysis). The analysis shows that the attribute 'people' explained almost 20 percent of variance in users' preference for the Arcadium indoor square (Table 5.44). Although this shows that other variables also played a major role in explaining preference, the results of this analysis are worth to be reported due to the exploratory nature of the study.

Table 5.44: Results of Regression Analysis of the Relationship between Preference and Generated Attributes for a 'Good' Urban Square

VARIABLES	R^2	R^2change	b	t	P
People	.187	.187	0.545	3.182	.003
(constant)			2.446	7.413	.000

Standard Error = 1.47
Adjusted R^2= .169
df1=1; df2=44
For model: F = 10.126, p < .01

Then, I analyzed the multicollinearity between variables. Table 5.45 shows low to substantial correlation between the variables of the model (r's<0.55). This shows that multicollinearity does not constitute significant problem in this model.

Table 5.45: Pearson Correlation for Preference for Arcadium inner square in relation to generated attributes

	DV	IV1	IV2	IV3	IV4	IV5	IV6	IV7	IV8	IV9	IV10
PREFERENCE(DV)	1.00										
Location (IV1)	-.083	1.00									
Visual (IV2)	-.113	.429	1.00								
Natural (IV3)	.092	.182	.177	1.00							
Layout (IV4)	.092	-.030	.205	.345	1.00						
Emotional (IV5)	.209	.044	.223	.127	.237	1.00					
Behavioral (IV6)	.031	.534	.598	.252	.089	.098	1.00				
Use (IV7)	.188	.242	.364	.452	.478	.230	.350	1.00			
Maintenance (IV8)	.186	.419	.461	.355	.408	.287	.387	.395	1.00		
People (IV9)	.433	.020	-.001	.245	.526	.212	.043	.411	.180	1.00	
Identity (IV10)	-.181	.228	.340	-.153	-.059	-.010	.218	-.136	.083	-.166	1.00

In line with the previous research findings (Whyte, 2009; Marcus & Francis, 1998; Montgomery, 1998; Shaftoe, 2008), multiple regression analysis reveals that 'people', referring to presence of other people and target population, is a significant variable that affect users' preference for Arcadium inner square. Montgomery (1998) argues that presence of people creates vitality. On the other hand, Whyte (2009) and Marcus & Francis (1998) put emphasis on 'people' as attracting more people, creating sense of safety and security, and they consider 'people' in terms of different user groups. Quotations from the respondents presented in Table 5.46 support this finding of the study.

Table 5.46: Sample quotations for people

"It should be able to serve for each age group. There should not only be playgrounds for children, it should provide places for us all."

(Female, 18-24, Student)

"There should not just be shops or cafés, there should be people around for a lively space."

(Female, 18-24, Student)

Table 5.46 (Continued)

"It has to be crowded, because if I see other people lingering in the square, I would also like to be there."

(Male, 25-65, Architect)

"It is important for me to have a crowded square, it would make feel safe and secure."

(Female, 25-65, Housewife)

5.2.4 THE LOCAL AUTHORITY'S APPROACH ON URBAN SQUARES

This section responds to the third minor research question of the study related to the local authority's approach. Thereby, it puts forward the local authority's planning and design approaches on urban squares and the ones adopted during ÇUSP. The section introduces the municipality's intentions while introducing the ÇUSP and site selection criteria for Çayyolu, together with the design principles implemented in ÇUSP with the help of the data obtained from my in-depth interviews with the Head of the Department of Environment in the Public Works and Urbanism Directorate of the Yenimahalle Municipality, and the Design Coordinator of the ÇUSP.

The interview conducted with Betül Uyar (2010a) as part of this inquiry, the Head of the Department of Environment in the Public Works and Urbanism Directorate of the Yenimahalle Municipality documents the municipality's approaches on urban squares and site selection criteria for Çayyolu. Accordingly, the municipality adopts an approach of enhancing social structure of the society (Uyar, 2010a). In order to support this approach, municipality focuses on the provision of open spaces and areas where social life takes place and people socialize. In this respect, municipality aims to create an open space system including active recreational areas like shopping and entertainment facilities together with passive recreational areas like promenades and green areas as areas of freedom. Within this framework, Uyar (2010a) indicates that municipality approves the idea of 'squarelization' against 'squarelessness', and promotes the production of public square projects. Çayyolu Urban Square Project is one of the square projects prepared along with this understanding, within the context of 'Yenimahalle Urban Squares Project' initiated by the municipality in 2009.

Interview (Uyar, 2010a) shows that, Çayyolu is selected for the implementation of an urban square project regarding its significance as a growing development area within the context of Ankara. Uyar (2010a) also indicates that the project was at first prepared for

local elections campaign. On the other hand, site selection of the project within the context of Çayyolu includes such criteria as centrality, existence of a variety of uses around the project site and green areas; in this respect existence of Arcadium shopping center had a particular effect on the site selection. Furthermore, identification of the site as square, previously in 1986 plans, had been a decisive factor for the selection of the project site (Uyar, 2010a).

Regarding the municipality's design principles on urban squares, Uyar (2010a) indicates that, principles adopted during the projects primarily present the visions of design professionals within the municipality or the other design professionals assigned by the municipality. Yet at this point, Uyar (2010a) states that with a 'social municipality' understanding, municipality aims at providing services with high standards, accessible for all the people from different social, cultural and economic backgrounds, genders, age groups and physical conditions. In this respect, considering the social, cultural and economic structure in Çayyolu, Yenimahalle Municipality aimed at introducing an elaborative urban square project in terms of a complex social center and therefore commissioned Landscape Architect Prof. Dr. Yalçın Memlük and his team for the preparation of the project plans.

My interview with Prof. Dr. Yalçın Memlük, the Design Coordinator of the ÇUSP, documents the design approaches and principles adopted during the project design process. Memlük (2011) explains the approach that he and his team adopted during the design process of the ÇUSP, in reference to the Spanish square production understanding within the context of 21st century. Memlük (2011) states that squares are the major components of cities where socialization of human beings occurs, in line with this, Spanish approach regard squares as the living rooms of houses where the primary socialization is realized. On the other hand, Spanish see squares as places where people may behave like they are in their living rooms. Adopting such an approach, Çayyolu Urban Square is designed as a place for socialization.

Memlük (2011) indicates that, Çayyolu Urban Square is structured around a 'social tower' and integrated with the surrounding green areas. Project includes reorganization of the existing adjacent sports areas, cafés and parks within the entire block where the square site is located.

Having an inspiration from the introduction of clock towers into the Ottoman cities as significant representations of the modernization, the social tower is designed as the 'time

tower' showing local and other world cities' times with clocks on each of its four surfaces which symbolizes a meeting point both with the world and the locality within the context of time. Time tower as the landmark of the square, constitutes a physical meeting point as well as a stage for a variety of activities (concerts, open air shows etc.) with the giant screens taking place on its four sides which allows the show on the stage visible from all sides. Considering plastic arts as the primary component of socialization, Memlük (2011) states that sculptures and frescos take place in the corners of the square area. Together with these, in order to promote art, and enhance the identity of the square, Memlük (2011) adds on that, square will include permanent exhibitions of the fine arts students' works.

Memlük (2011) expresses that both formal and informal seating opportunities (grass amphitheatre) are introduced, including fixed (that are provided along the promenade) and flexible seating elements (allowing even sunbathing). Regarding the natural elements, Memlük (2011) states that, trees are used along the promenade to create shadow; water elements are used to define borders and limit the square area, and finally flowers are used to create a color effect. Within the context of integrated green areas, walking paths, sitting and view terraces are provided in the Ali Rıza Bey Forest; and the adjacent park is regarded mainly as a green area incorporating the future metro station, in this regard, square is connected to the park with an inclined bridge.

Lykert-scale rating study is also applied to both professionals, representer of the local authority and the design coordinator, regarding the design principles adopting within the ÇUSP. They rated the same variables with the inhabitants of Çayyolu, presented in statements that are obtained from literature. While Uyar rated all statements, Memlük rated the ones related mainly to the physical design of the square. He did not rate the attributes that are introduced them by the municipality (like geographical location and size of the square). Rating results show that almost all the attributes were rated high. The mean values ranging from 5.77 to 7 confirm the findings of the previous research. Results of the study reveals that, municipality offers a central and accessible location and larger dimensions. Responses of the local authority representer and the designer correspond with each other, except the flexible seating. While local authority puts emphasis on fixed seating elements, designer dwells on flexible seating elements.

Figure 5.10 introduces the project prepared by Prof. Dr. Memlük and his team.

Figure 5.10: Çayyolu Urban Square Project, Source: Memlük, Y., 2011.

Regarding the generated attributes by inhabitants, the Çayyolu urban square project illustrates that, project has a central and accessible geographical location due to the residential, commercial, socio-cultural uses surrounding the site, and the major transportation routes taking place along the adjacent main street (8th Street). The project plan primarily presents physical qualities including visual elements, natural elements and the layout.

In terms of visual elements, project provides, the general form of the square together with a variety of seating opportunities, nighttime lighting and public art elements. Trees, bushes, flowers and water elements are used as natural elements. Layout, referring the facility areas within the square, includes playgrounds, sport fields, platform for open air shows, grass amphitheatre, and view terraces and walking and bicycle paths in the forest. While providing a large open space, project excludes smaller subspaces for

different facilities and activities. For uses and activities, project introduces a number of cafés and restaurants; however there is not a clear vending or shopping facility area demonstrated in the plan. Project also illustrates that, young users are considered as the main user group regarding the provided facilities (such as playgrounds). In this respect, project excludes other groups of middle-aged, elderly or women. As far as the project has not implemented yet, managerial circumstances covering the program of the activities or the maintenance structure are not available as well. In this respect, behavioral attributes referring to such human activities as passive and active engagement, curiosity and discovery, relaxation and entertainment/enjoyment cannot be evaluated. On the other hand, although project aims at providing a comfortable (for instance with flexible seating elements) and safe and secure environment (with nighttime lighting); these emotional appraisals will be better evaluated after the implementation of the project. And finally, spatial identity is considered to be attained through permanent public art exhibitions; yet this will also be better evaluated after the realization of the project. Table 5.47 introduces a summary of the project according to the generated attributes by inhabitants.

Table 5.47: Assessment of the project according to the generated attributes

Generated attributes	Çayyolu Urban Square Project
Geographical location	-existence of a variety of uses around (residential areas, shopping mall, theatre, cafés, green areas, sports fields) -located along the main street:8th street where the major transportation routes take place and it is close to the future metro station and connected with an inclined bridge
Visual Elements	-uses arcades, natural elements (water elements and trees) as components limiting and defining the space -integrates the square with the surrounding uses (theatre, shopping mall) -provides a variety of seating elements (informal: grass amphitheatre, , flexible and fixed) -provides public art (social tower, sculptures, frescos) -provides nighttime lighting elements -use of color in terms of lighting and natural elements
Natural Elements	-provides green areas, trees, bushes, flower shows -uses water elements (water demonstrations)

Table 5.47 (Continued)

Generated attributes	Çayyolu Urban Square Project
Layout	-presents large spaces -provides subspaces such as the open air activity areas, platform, playgrounds (checkerboards, skating areas), sport fields (tennis, basketball, football, badminton fields), view terraces, walking paths and bicycle routes
Emotional Appraisals	-aims to provide comfort with flexible seating elements -aims to provide safety and security by providing nighttime lighting
Behavioral Appraisals	Not available
Uses and Activities	-provides eating and drinking facilities: with cafés and restaurants
Maintenance	Not available
People	-considered young users by providing special playgrounds
Spatial Identity	-aims to create a spatial identity related to the art exhibitions

5.2.5 GROUP DIFFERENCES

This section intends to respond the final minor research question of the study related to how perceived attributes generated through interviews explain differences between groups. The research includes groups according to age, gender and occupation and on the other hand, users and decision makers. In this respect, by introducing maps for each group, section will put forward similarities, commonalities and differences across groups within the context of 'good' urban square perceptions of respondents. In the first part, section briefly introduces group differentiations related to age, gender and occupation in terms of frequency of mentions and shared maps and, later in the second part it present results of the discriminant analysis.

5.2.5.1 GROUP-BASED PERCEIVED ATTRIBUTES

The study deals with three major groups as age groups, gender groups and occupational groups, within the framework of this part. Age groups refer to three groups including young: *students* (18-24 years old), middle-aged: *working population* (25-65 years old) and elderly: *retired* (65+ years old). Gender groups include women and men. And finally, occupational groups are related to design professionals and rest of the respondents.

Age groups

Study reveals that, almost all age groups include the most frequently mentioned perceived attributes as visual elements, behavioral attributes and geographical location corresponding with the results of the content analysis presented in previous sections.

One fourth of all the mentions (26%) within the age group referring young people, covers visual elements. Behavioral attributes include one fifth of all the mentions (20%). The third most frequently mentioned content groups are geographical location (12.5%) and natural elements (10%) with almost one fourth of all mentions. The rest of the attributes constitutes almost one third of the mentions including layout (8%)and uses and activities (8%) with equal distributions; together with people (5.5%); emotional appraisals (4.5%); maintenance (4%) and spatial identity (1.5%).

The second age group, referring to the middle-aged working population, includes almost one fourth of the mentions (25.5%) related to visual elements. Behavioral attributes cover almost one fifth of the mentions (18%). The third most frequently mentioned content groups having nearly one third of all mentions refer to geographical location (13.5%), and with equal distributions (8%) natural elements and uses and activities. The rest of the mentions compose almost one fourth of mentions in total, including content groups with almost equal distributions layout (7%), emotional appraisals (6.5%), maintenance (6%) and people (5.25%). Finally, the least frequently mentioned content group is spatial identity (1.25%).

The last age group covering elderly retired population, has the top three content groups as visual elements with one fifth (20%) of all mentions; behavioral elements (17%), and with equal distributions geographical location (14.5%) and natural elements (14.5%) constituting almost a half of all mentions in total. Following these, rest of mentions covers almost one third of all mentions including nearly equally distributed content groups as people (8.5%), uses and activities (7.5%), emotional appraisals (7.5%), and layout (7%). Maintenance (3%) and spatial identity (0.5%) appear as the least frequently mentioned attributes by elderly.Table 5.48 introduces the frequency distribution of mentions within each age group.

Table 5.48: Frequency distribution of mentions related to perceived attributes within age groups

AGE GROUPS	18-24 years old		25-65 years old		65+ years old	
CONTENT GROUPS	Freq. of mentions	Ratio %	Freq. of mentions	Ratio %	Freq. of mentions	Ratio %
Visual Elements	53	**26%**	189	**25.5%**	41	**20%**
Behavioral Attributes	42	**20%**	132	**18%**	34	**17%**
Geographical location	26	**12.5%**	102	**13.5%**	29	**14.5%**
Natural Elements	21	10%	64	8.5%	29	**14.5%**
Uses and Activities	16	8%	65	8.5%	15	7.5%
Layout	16	8%	51	7%	14	7%
Emotional Appraisals	9	4.5%	48	6.5%	15	7.5%
People	11	5.5%	39	5.25%	17	8.5%
Maintenance	8	4%	46	6%	6	3%
Spatial Identity	3	1.5%	9	1.25%	1	0.5%
TOTAL	205	100%	745	100%	201	100%

Regarding visual elements and behavioral attributes as the top two most frequently mentioned content groups, the age group of young people comes forward with the highest proportions of each content group; on the other hand, age group of elderly has the lowest proportions. In this respect, young and middle-aged people illustrated defined entrances and exits; seating elements including alternative informal seating places like lawn areas and stairs, public art elements referring the orientation to the area and connections with the other uses around. Young people also emphasized color (e.g. paving stones). On the other hand, elderly only included seating and public art elements; and emphasized paving materials as to be robust and proper.

Middle-aged people demonstrated both car and bicycle parking areas, yet young people included only bicycle parks. Although elderly had the highest proportion of mentions for the content group of geographical location, they did not illustrate any items. Elderly also had highest proportions for the natural elements and primarily illustrated green areas in their drawings including trees, bushes, greenery and flowers. Young and middle-aged people had lower proportions and illustrations respectively. Young emphasized lawn areas as an alternative seating element generating relaxation.

All age groups included uses and activities referring eating-drinking opportunities, vending/shopping facilities. However, middle-aged group is the one that mostly emphasized cafés, restaurants, shops and vending stalls. Young included cafés and kiosks; and elderly demonstrated a few teahouses, coffee shops and vending stalls.

Regarding the layout of the square, young people illustrated subspaces as small activity areas, arbors, playgrounds, sports fields and platforms, corresponding with their higher proportions in behavioral attributes which refer to active and passive engagement, relaxing, discovery and entertainment. This is consistent with the previous research findings (Shaftoe, 2008) indicating the significance of such activities for the socialization of young. All three age groups referred playgrounds, which cover mainly children's play areas in the illustrations of both elderly and middle-aged groups. Other than these, elderly emphasized amphitheatre as an activity space. Briefly put, spatial organization of the perceived square, regarding the layout, does not differ substantially within age groups, yet, use of the space and variety of attributes differentiate.

Middle-aged group has the highest proportion of mentions about maintenance. In this respect, only this group illustrated elements regarding maintenance (e.g. toilets). Respondents did not illustrate intangible attributes such as emotional appraisals, people and spatial identity. However, regarding the frequency distribution of mentions, elderly covers the highest proportion about people (referring existence of others and user groups), and emotional appraisals (referring comfort, safety and security). Young age group, in contrast, has the lowest proportion about emotional appraisals. All age groups have almost equal proportions about spatial identity.

Following shared maps illustrate the perceived attributes of 'good' urban square for each age group (Figure 5.11, 5.12, 5.13).

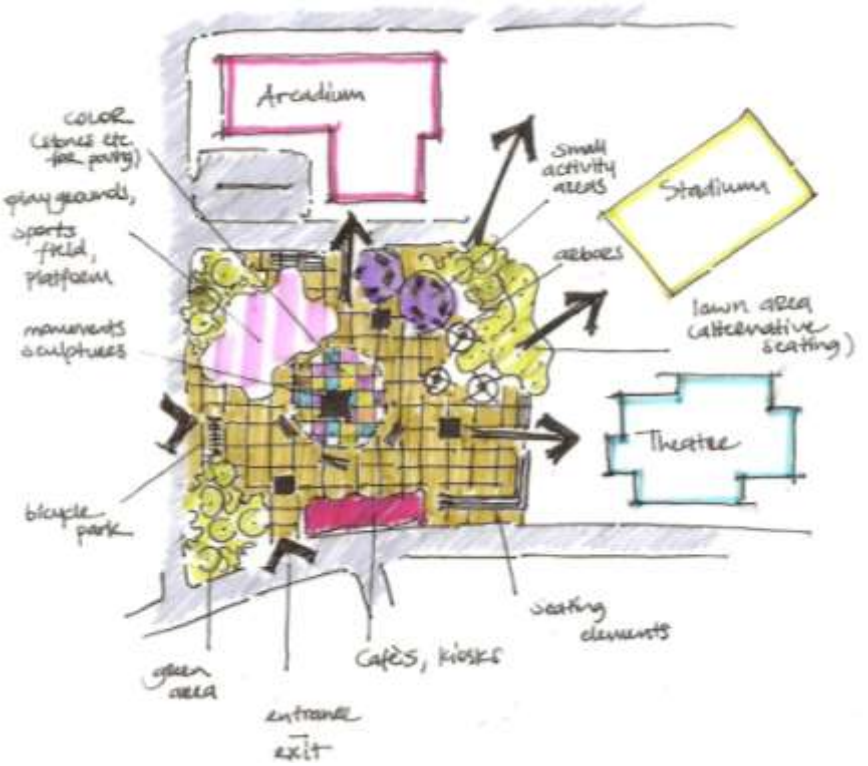


Figure 5.11: Shared map of perceived attributes for young age group

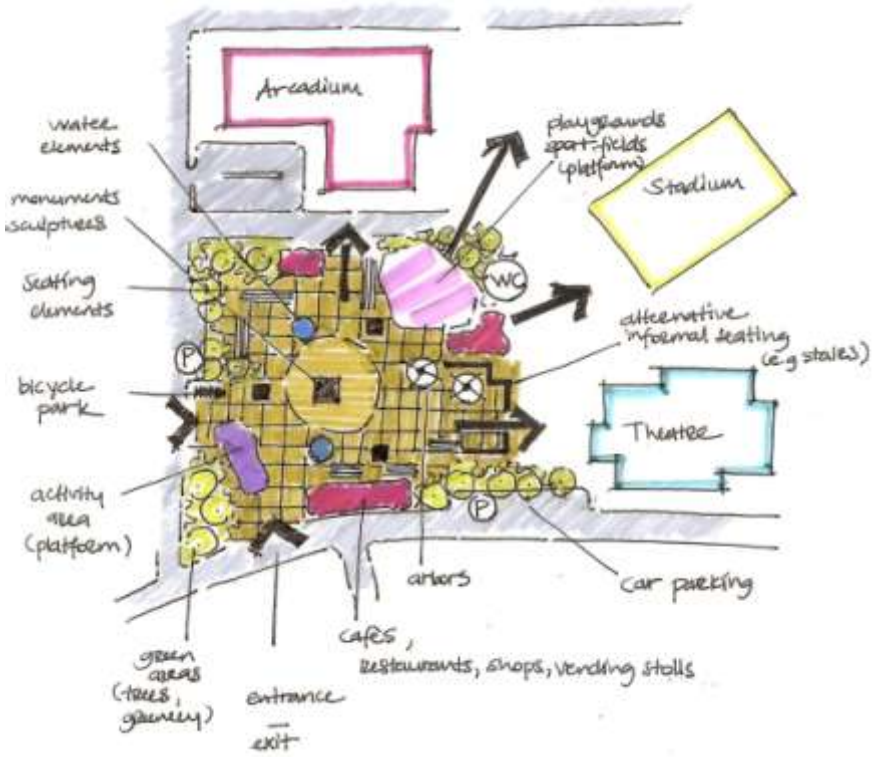


Figure 5.12: Shared map of perceived attributes for middle-age group

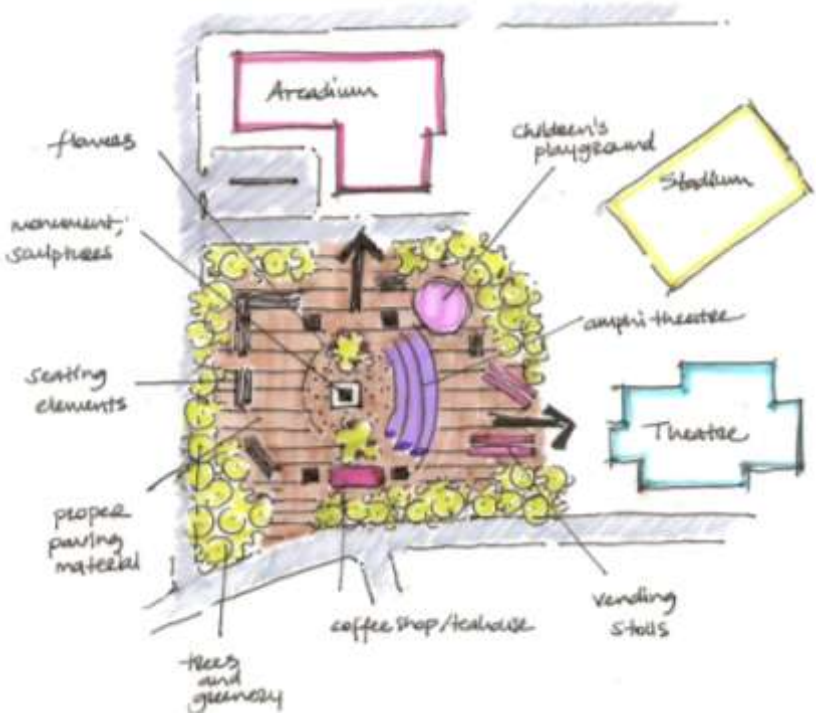


Figure 5.13: Shared map of perceived attributes for elderly age group

Gender groups

Gender groups covering women and men respondents, include the most frequently mentioned attributes as visual elements, behavioral attributes and geographical location corresponding with the findings of the previous analysis.

Almost one fourth (23.5%) of all mentions by women cover visual elements. Following this, behavioral attributes constitute one fifth (20.5%) of the mentions. Geographical location (12%), natural elements (10.5%), and uses and activities (9%) with almost equal distributions compose nearly one third of all mentions in total. The rest of the mentions referring one fourth of all mentions in total, includes layout (6.5%), people (6.5%), emotional appraisals (5.5%), maintenance (5.5%) and with the least proportion spatial identity (0.5%).

Men, having less mentions than women in each content group except spatial identity, most frequently mentioned visual elements with almost one fourth of all mentions (26%). Behavioral attributes (15%) and geographical location (15.5%) with equal distributions constitute almost one third of all mentions in total. Following these, with nearly equal

distributions natural elements (9%), layout (8%), uses and activities (7.5%) and emotional appraisals (7%) compose one third of all mentions in total. The rest of the mentions includes people (5%), maintenance (5%) and spatial identity (2%). Table 5.49 introduces the frequency distribution of mentions within each gender group.

Table 5.49: Frequency distribution of mentions related to perceived attributes within gender groups

GENDER GROUPS	WOMEN		MEN	
CONTENT GROUPS	Frequency of mentions	Ratio %	Frequency of mentions	Ratio %
Visual Elements	157	**23.5%**	126	**26%**
Behavioral Attributes	136	**20.5%**	132	**15%**
Geographical Location	82	**12%**	75	**15.5%**
Natural Elements	71	10.5%	43	9%
Uses and Activities	60	9%	36	7.5%
Layout	43	6.5%	38	8%
Emotional Appraisals	38	5.5%	34	7%
People	42	6.5%	25	5%
Maintenance	35	5.5%	25	5%
Spatial Identity	4	0.5%	9	2%
TOTAL	668	100%	483	100%

Regarding the top three most frequently mentioned attributes as respectively visual elements, behavioral attributes and geographical location in both genders; men come forward with higher proportions than women within the context of visual elements. On the other hand, in terms of behavioral attributes, women have higher proportion of mentions than men. Meanwhile, men mentioned more about geographical location than women. In line with these; women and men both illustrated seating elements, public art elements and connections with the other uses around; whereas women also emphasized informal seating places (e.g. stairs and lawn areas) in contrast with men who included seating elements within the central square mainly for watching around. This finding corresponds with the existing literature (Whyte, 2009) emphasizing men as preferring more front places, while women prefer more secluded places in the square. Furthermore, women demonstrated paving materials, defined entrances and exits, and men

substantially emphasized existence of a plenty of public art elements within the square. They both included car parking and bicycle parking areas.

Women included more natural elements than men corresponding with their higher proportion of mentions related to natural elements. Women included green areas covering trees, bushes and lawn areas (also for informal seating); men included water elements besides trees and bushes. In terms of uses and activities, although they both have similar illustrations, women included diverse uses as cafés, restaurants, boutiques, shopping and vending stalls where men illustrated, coffee shops or teahouses.

In line with the previous research (Whyte, 2009; Marcus & Francis 1998), regarding the layout of the square, women illustrated more private subspaces as smaller spaces composed of seating and natural elements; and they also included activity areas such as platforms and stages; mainly emphasizing existence of playgrounds for children. On the other hand, men similarly included arbors, activity areas as stages, and playgrounds for children. Different from women, men illustrated activity areas for sports.

In terms of maintenance women included toilet facilities. This finding corresponds with the previous research (Marcus & Francis, 1998) indicating that women looking for comfort more than men. Respondents did not demonstrate intangible attributes such as emotional appraisals, people and spatial identity. However, regarding the frequency distribution of mentions, men cover higher proportion of mentions about emotional appraisals (referring comfort, safety and security), and about spatial identity. Women have higher proportions about people (referring existence of others and user groups). Following figures illustrate the shared maps of perceived attributes for a 'good' urban square within each gender group (Figure 5.14, 5.15).

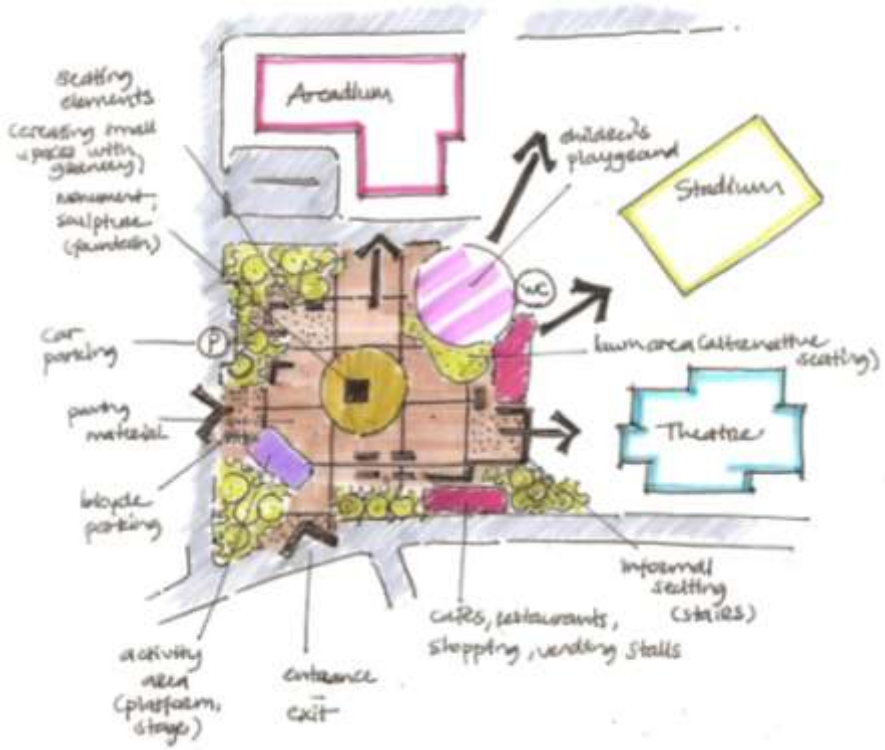


Figure 5.14: Shared map of perceived attributes for women

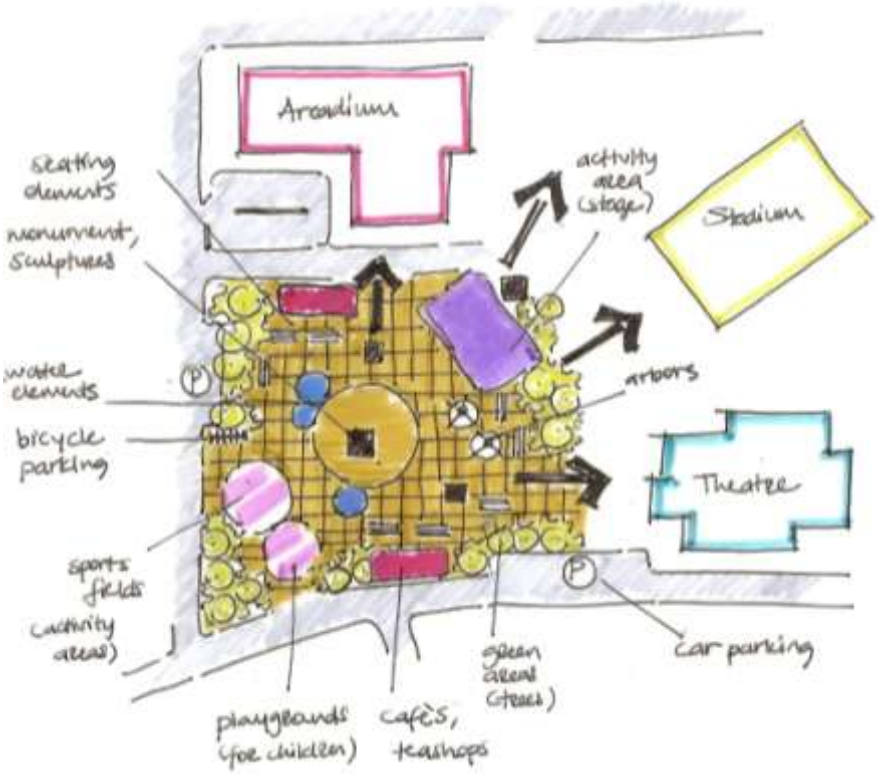


Figure 5.15: Shared map of perceived attributes for men

Occupational groups

Occupational groups referring two groups as design professionals and the rest of the respondents, include visual elements, behavioral attributes and geographical location as the most frequently mentioned attributes of a 'good' urban square corresponding with the previous analysis.

Visual elements with a ratio of 29.5%, and behavioral attributes with a ratio of 18.5% constitute a half of all the mentions within the design professionals' group. Following these, geographical location (16%), and with almost equal distributions uses and activities (8.5%), and emotional appraisals (8%) compose one third of all the mentions. The rest of mentions include maintenance (6%), layout (4.5%), people (4.5%), natural elements (3%) and spatial identity (1.5%).

The group of rest of the respondents most frequently mentioned attribute is visual elements with one fourth (24%) of all mentions. Behavioral attributes (18%) cover almost one fifth of the mentions. Geographical location (13%) and natural elements (11%) constitute one fourth of mentions in total. The remaining mentions include with almost equal distributions uses and activities (8.5%), layout (7.5%), emotional appraisals (6%), people (6%) and maintenance (5%); spatial identity (1%) is the least frequently mentioned attribute. Table 5.50 presents the frequency distribution of mentions within each occupational group.

Table 5.50: Frequency distribution of mentions related to perceived attributes within occupational groups

OCCUPATIONAL GROUPS	DESIGN PROFESSIONALS		REST OF THE RESPONDENTS	
CONTENT GROUPS	Frequency of mentions	Ratio %	Frequency of mentions	Ratio %
Visual Elements	38	**29.5%**	245	**24%**
Behavioral Attributes	24	**18.5%**	184	**18%**
Geographical Location	21	**16%**	136	**13%**
Natural Elements	4	3%	110	11%
Uses and Activities	11	8.5%	85	8.5%
Layout	6	4.5%	75	7.5%
Emotional Appraisals	10	8%	62	6%
People	6	4.5%	61	6%
Maintenance	8	6%	52	5%
Spatial Identity	2	1.5%	11	1%
TOTAL	130	100%	1021	100%

Visual elements, behavioral attributes and geographical location constitute the most frequently mentioned attributes of a good urban square both for design professionals and the rest of the respondents. Design professionals have higher proportions about visual elements regarding the frequency of mentions, yet both groups emphasized, existence of public art elements like a central monument, sculptures etc., seating elements including informal seating places (e.g. stairs, edges and corners), defined entrances and exits, connections with surrounding uses. Rest of the respondents also illustrated paving materials. In terms of geographical location, design professionals demonstrated car parking areas; and rest of the respondents included bicycle park as well.

Major difference between design professionals and rest of the respondents is related to natural elements. While design professionals have lower proportion of mentions about natural elements; the rest of the respondents related higher proportions of their mentions to natural elements. Designers used natural elements in their illustrations for separating spaces. Rest of the respondents demonstrated natural elements mainly in order to surround the square, included water elements, and emphasized lawn areas for informal seating.

In terms of uses and activities, both groups commonly emphasized cafés, restaurants, shopping/vending facilities in their illustrations and mentions. Regarding the layout of the square, design professionals separated the square into smaller areas, indicated smaller activity areas, together with larger activity areas including stages, platforms and playgrounds. On the other hand, rest of the respondents emphasized arbors, children's playgrounds, sports fields and various activity areas. Moreover, the locations of activity areas and playground vary and users suggest more seating areas. Following figures illustrate the shared maps of perceived attributes for a 'good' urban square within each occupational group (Figure 5.16, 5.17).

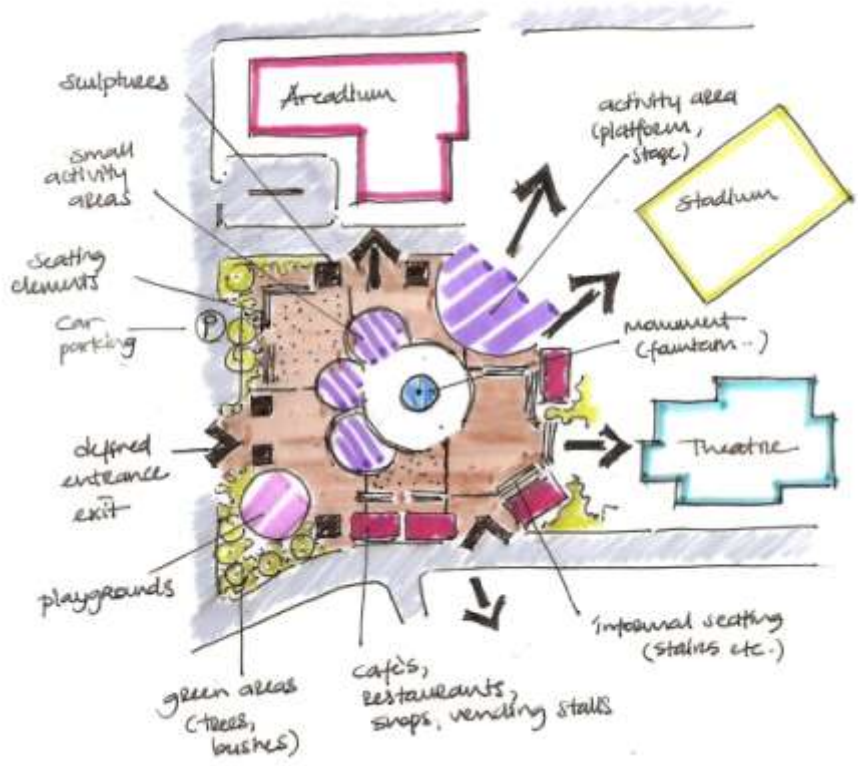


Figure 5.16: Shared map of perceived attributes for design professionals

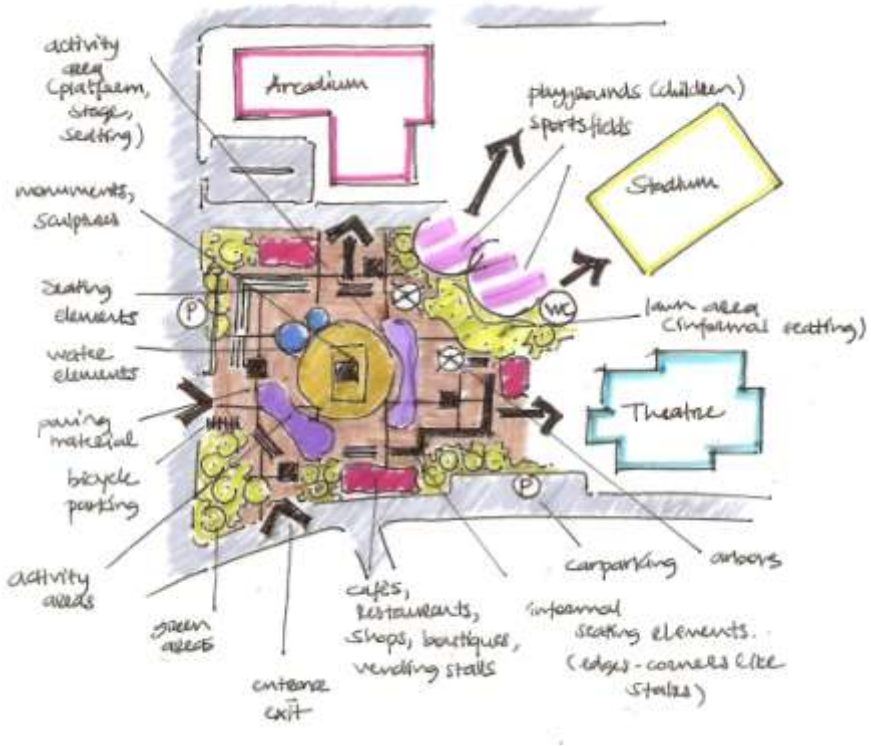


Figure 5.17: Shared map of perceived attributes for rest of the respondents

5.2.5.2 DISCRIMINANT ANALYSIS

Discriminant analyses conducted for different groups show that generated attributes of a 'good' public square significantly discriminate only gender groups (women and men). Discriminant analyses did not significantly explain other group differences including age and background. Due to the political position of this project, and thus, the limited number of decision makers whom I could reach with respect to this inquiry, it was not meaningful to conduct a discriminant analysis to examine group differences between users and decision makers. Therefore, this section presents the outcomes of the discriminant analysis that reveals significant difference by gender groups.

To extract the discriminating variables on which one group has significantly higher means than the other groups, the study applied analysis of variance and calculated significance tests for the equality of means for each discriminating variables (Table 5.51). Tests of equality of group means show that 'women' significantly has higher means (5.9) than 'men' (3.3) on the behavioral attribute. Moreover, Table 5.52 displays the lambda values and the level of significance for each variable. All lambda values are close to the

maximum value=1.0, except the attribute 'behavioral' (lambda value= .79) whose level of significance associated with the F value of this variable achieve statistical significance.

Table 5.51: Means and Standard deviation for discriminating variables

CONTENT GROUPS	WOMEN (n=20)	MEN (n=20)
Geographical Location	3.5 (1.7)	3.3 (1.5)
Visual Elements	6.5 (3.6)	5.8 (3.1)
Natural Elements	3.1 (2.3)	1.9 (1.3)
Layout	1.9 (1.9)	1.7 (1.6)
Emotional Appraisals	1.6 (1.1)	1.5 (1.4)
Behavioral Attributes	5.9 (2.8)	3.3 (2.3)
Uses and Activities	2.6 (1.9)	1.6 (1.1)
Maintenance	1.6 (1.4)	1.1 (1.2)
People	1.8 (1.4)	1.1 (1.1)
Spatial Identity	0.2 (0.4)	0.4 (0.8)

Table 5.52: Tests of equality of group means

	Wilks' Lambda	F	df1	df2	Sig.
P_LOC	.991	.408	1	44	.526
P_VIS	.987	.568	1	44	.455
P_NAT	.890	5.458	1	44	.024
P_LAY	.997	.142	1	44	.708
P_EMOT	.997	.136	1	44	.714
P_BEH	.789	11.782	1	44	.001
P_USE	.909	4.406	1	44	.042
P_MAIN	.955	2.051	1	44	.159
P_PEOP	.925	3.574	1	44	.065
P_IDEN	.975	1.115	1	44	.297

However, the interpretation of differences between the groups on each variable may become difficult as the discriminating variables intercorrelate. Table 5.53 displays the correlation between various variables. Although the matrix shows low to substantial correlation (r's < 0.62) between various attributes, multicollinearity does not exist.

Table 5.53: Pooled within-groups correlation matrix: discriminating variables (n=46)

	IV1	IV2	IV3	IV4	IV5	IV6	IV7	IV8	IV9	IV10
Location (IV1)	1.00									
Visual (IV2)	.423	1.00								
Natural (IV3)	.160	.149	1.00							
Layout (IV4)	-.036	.201	.347	1.00						
Emotional (IV5)	.039	.219	.115	.235	1.00					
Behavioral (IV6)	.554	.618	.119	.070	.082	1.00				
Use (IV7)	.225	.349	.391	.484	.224	.249	1.00			
Maintenance (IV8)	.409	.450	.309	.406	.282	.334	.356	1.00		
People (IV9)	-.007	-.033	.169	.532	.205	-.097	.358	.130	1.00	
Identity (IV10)	.247	.365	-.109	-.051	-.001	.331	-.094	.120	-.130	1.00

The discriminant analysis reveals significant differences across the gender groups. Respectively, the gender groups significantly differ from each other on the 'behavioral' attribute. Table 5.54 shows the results of this testing for the two gender groups. The statistical hypothesis tests the possibility of a difference between the group means (group centroids) on the discriminant variables in the populations from which the samples were drawn. The results of discriminant analysis indicate that the group means are significantly different on the discriminant scores (X^2=21.8, $p<.05$) and the group mean of women significantly scored higher than men (WOMEN = .885; MEN = .187). The variance in the discriminant scores not explained by differences between groups contained a moderate proportion (Wilks' Lambda=.571). Moreover, the function does not explain 25% of the variance (1-Eigenvalue) and canonical correlation of this discriminant function remains at .66 which indicates a substantial association between the groups and the discriminant scores. Furthermore, looking at the structure coefficients of the discriminating variables determine the difference. Table 5.54 displays that the discriminating function carries substantial information as the discriminating variable 'behavioral' (+1.0 < 0.6 < -1.0).

Table 5.54: Summary data for dsicriminant analysis

Discriminant function				
	b	**s**	**Group**	**Centroids**
Location	-.515	.111	**Women**	.885
Visual	-.323	.131	Men	-.811
Natural	.343	.407		
Layout	-.565	.066		
Emotional	-.070	.064		
Behavioral	1.084	.597		
Use	.156	.365		
Maintenance	.287	.249		
People	0.61	.329		
Spatial Identity	-.237	-.184		

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by absolute size of correlation within function.

Eigenvalue	**R©**	**Wilks' Lambda**	**P**
.750	.655	.571	<.05

b = standardized discriminant function coefficient
s = within-groups structure coefficient
R© = canonical correlation coefficient

Finally, the classification of cases represent a useful tool in predicting the group membership for cases of "unknown" membership. The classification of cases represent an index of effectiveness of the discriminant function. To assess and describe discriminating power of the discriminant function, it is also necessary to compare the percent of cases correctly classified using the discriminant function with what could be expected if cases were classified at random. Table 5.55 displays the results of this classification indicating a powerful guessing by using this function (87%).

Table 5.55**:** Classification of cases

		GENDER	Predicted Group Membership		Total
			1.00	2.00	
Original	Count	1.00	18	4	22
		2.00	2	22	24
	%	1.00	81.8	18.2	100.0
		2.00	8.3	91.7	100.0

CHAPTER VI

FINAL COMMENTS AND DISCUSSION

This study explored the humanistic design attributes that can be used in the production of an urban square in the Çayyolu District in Ankara. To do that, the study extracted the meaning of a 'good' urban square through inhabitants' eyes as well as tested the validity of the previously defined attributes. Within this respect, the study explored the perception of the Çayyolu inhabitants for a 'good' urban square and the design approach of decision makers of the Çayyolu Urban Square Project; tested perceived attributes of a 'good' public square defined in previous research; examined group differences between users and decision-makers, women and men, and different age groups including the young, the middle age, and the old. The results made important contribution in various ways, theoretical, methodological, and practical professional. On the other hand, the study also opened up new areas of further inquiry.

6.1 CONTRIBUTIONS AND LIMITATIONS OF THE STUDY

The in-depth descriptions of respondents show that a 'good' public square should be composed of visual elements, including particularly the sense of enclosure, a variety of seating elements, art works, surface materials, nighttime lighting, the relationship to the surrounding context, and the color; and allow opportunities for various activities. Moreover, a 'good' public square should be centrally located and easily accessible through the use of various means including cars, buses, bicycles, and on foot, and the availability of parking facilities. These results confirm the findings of the existing literature. On the other hand, different from previous research, this inquiry uncovers the importance of the 'color' element in space in relation to 'joy' particularly for the young. Furthermore, different from the findings of the literature in environmental psychology, respondents emphasize the 'spatial identity' in the context of a 'good' urban square.

On the other hand, respondents' ratings for previously defined attributes for a 'good' urban square confirm the importance of all attributes in the context of this inquiry. This validates the generalizability of perceived attributes extracted in previous research done in Western cities. Furthermore, quasi-experimental analyses show some perceived attributes more significant than others in the Turkish context. While subjective descriptions emphasize the physical aspect of an urban square, quasi-experimental results of the study revealed significant attributes related to the management of the square and socio-psychological aspect of space. The analyses show emotional reactions, the location and management of an urban square, and the presence of others as significant attributes.

In line with the literature, this inquiry also shows that the perception of decisions-makers/professionals and users differ. While users emphasize emotionally comforting, safe environments with managerial aspects, as well as presence of various facilities and activities for different age and gender groups, and shopping opportunities; decision-makers disregard the human factor and adopt upper level approaches that overlook the scope of users. Decision-makers exclude provision of different activities and areas for different groups of people, detailed managerial plans regarding activity programs or maintenance and disregard using users' concerns as an input for planning and design. This difference also reads itself when the Çayyolu Project is compared to the physical layout generated from respondents subjective descriptions of this inquiry. While the ÇUSP contains large open spaces excluding subareas to allow various human activities, the generated map of respondents is composed of a multitude of subareas to accommodate activities. This difference may be derived from the professional who produced the project. Coming from the field of landscape architecture, the designer of the project may have disregarded the human aspect of urban space due to his professional focus, yet considered more the formal aesthetic of space.

This difference between users and others is also confirmed by the difference between users of different professional background. The inquiry show that users coming with non-design background present a more detailed humanistic layout and activity plan for the urban square than users coming with design background. Furthermore, they have repeatedly emphasized the presence of natural elements.

Women significantly emphasize the allowance of active uses in urban square while for men, activities in space does not constitute a significant attribute. The generated physical layouts for men and women also imply this difference. While men suggest seating

elements in the central part of the urban square, women prefer sub-spaces for different activities. This finding is consistent with the literature which states 'observation' as a significant men's behaviour in urban square more than women.

Young present an intensive layout and plan of activities particularly related to entertainment and joy; and emphasize the color and informal seating within the physical setting of the urban square. Middle-aged consider existence of more commercial facilities in the square and emphasize square's managerial aspects. While elderly significantly emphasize presence of natural elements and robust paving materials.

This inquiry made a methodological contribution by integrating different research approaches and relevant methods and techniques in urban space research. By adopting different methodological tools to extract the same data, this study strengthens the internal validity of the local knowledge. While revealing subjective descriptions, the inquiry intended to understand the contextually unique local knowledge about the perception and preferences of users and decision-makers/professionals. On the other hand, the study also aimed at examining how much the western literature applies to the Turkish context. The results were produced by using a variety of techniques ranging from exploratory to quasi-experimental. However, although multivariate statistical techniques revealed significant results, it can be stated that the number of respondents are not adequate for this kind of analyses. Due to the nature of this inquiry, which is exploratory in general, the study took the initiative to adopt these techniques to explore further insights about users' perception and preferences for such urban spaces.

On the other hand, although it is essential that urban squares should be accessible for all kinds of user groups within the society, this inquiry does not specifically cover such vulnerable groups as disabled people, or women with babies.

Furthermore, regarding the in-depth interview technique adopted during the study, it can be said that the respondents had a positive attitude towards the research in general; yet, in some cases, it was hard to communicate with young and elderly. In addition to that, the list of variables tested with Lykert-scale rating appeared to be quite long when considered that it was tested twice.

In terms of practical and professional contribution of the inquiry, the results clearly indicate that users have a more humanistic approach to the design of urban square. Respectively, they expect such an urban space to be produced responsive to their needs and preferences. The study points out that this should be seriously considered by both decision-makers and design professionals.

Regarding the case of ÇUSP, it has become a complex process both practically and politically, and as a design issue. Yet, looking from the people's point of view, it requires a very humanistic task. If considering that this parcel is allocated for public use, the interest should be oriented to the target population of this intention which is 'users'. Decision-makers and design professionals should take into consideration of their preferences and what is important for them. This inquiry revealed this kind of a practical knowledge that can be used in the design of the site. In reference to the findings, the project can include visual elements, behavioral attributes, geographical location, natural elements, uses and activities, layout, emotional appraisals, people, maintenance and spatial identity. Defined design recommendations of these components are listed in Table 6.1.

Although the inquiry introduces various attributes of a 'good' urban square, the results remain limited considering the existing broad literature as the frame of reference and the selected case study area; thus the study was not able to deeply examine the affect of each component revealed from this inquiry.

On the other hand, the study reveals that the 'designer' and the 'user' can come across at any stage of a design process. In this respect, it represents a practical way of integrating user and designer in order to reach a humanistic design quality for an urban square.

Table 6.1: Design Recommendations for a 'good' urban square

CONTENT GROUPS	DESIGN RECOMMENDATIONS	LITERATURE
VISUAL ELEMENTS	*Form* -define the square with buildings, walls, seating elements, natural elements, paving etc. -provide a relation between the square and the other surrounding uses, buildings etc. -visually and aesthetically organize the surrounding buildings -use orienting elements	-may be in various shapes , not one shape fits all (may be asymmetrical) -create a sense of enclosure *(Carmona et al, 2003; Sitte, 1965; Childs, 2004; Nasar, 1998; Krier, 1979; Shaftoe, 2008)
	Seating -provide seating elements -include flexible seating -include informal seating (lawn areas, stairs, edges and corners etc.) -use durable and proper materials comfortable and convenient for all seasonal conditions	-provide a variety of sitting, leaning, resting places -should be at 40-75 cm in height -may be in various forms and styles allowing diversity of sitting behavior and allowing using seating as vantage points -use appropriate materials for differentiating climatic and environmental conditions -orient sitting places according to the sun and shade, and activity places * (Whyte, 2009; Marcus & Francis, 1998; Alexander et al, 1987; Childs, 2004; Shaftoe, 2008)
	Public art -provide a variety and a plenty of artistic elements -provide a central monument (sculpture, fountains etc.) -seating elements may be artistically designed	-locate at an 'off-center' position -may function as a landmark -locate close to the pedestrian routes -may be designed as shelter and protection, -may function as seating places -may function as creative playgrounds *(Childs, 2004; Whyte, 2009; Carmona et al, 2003; Carr et al, 1992; Marcus & Francis, 1998; Shaftoe, 2008; Sitte, 1965)
	Paving -use an identical material -provide a robust, proper, long lasting surface materials -provide easily walkable surface	-provide a visual expression representing a sense of center, stopping or staying by using floor patterns -may be in various materials such as brick, stone, marble, concrete etc. 'stone paving slabs' and introduce a 'human scale', thus make the 'large, hard' spaces easier to perceive -use more durable materials regarding the differing climatic conditions and the long term economic benefits -embed a variety of activities to the floor pattern such as gameboard *(Carmona et al, 2003; Childs, 2004; Shaftoe, 2008)

Table 6.1 (Continued)

CONTENT GROUPS	DESIGN RECOMMENDATIONS	LITERATURE
	Size -provide spacious, larger (in this case) squares	-not too large, not too small -well-proportioned -pleasant human scale: 12m-24m (along both sides) -maximum dimensions: 70m-100m (along both sides) *(Shaftoe, 2008; Lynch, 1971; Alexander, 1977; Gehl, 1987; Marcus & Francis, 1998; Childs, 2004; Whyte, 2009)
	Lighting -provide adequate and identical lighting -provide regular nighttime lighting and create a safe and secure environment	-let the place reach natural daylight -provide a 'good seeing' in the whole area during nights -provide a particular lighting pattern to create an attractive and welcoming visual environment and identical image *(Phillips, 2002; Carmona et al, 2003)
	Visual access -make the square visible from the surrounding area -prevent creation of visually inaccessible spaces -provide elements in order to screen out the noise and visual access of the traffic	
	Human scale -provide elements in smaller/lower dimensions (buildings etc.) (in terms of height, volume)	-keep dimensions according to pace of pedestrians -use high and huge buildings as landmarks -embed activities and uses into the surrounding building frontages such as vending, eating and drinking etc. -define the plaza with the surrounding buildings -create a sense of enclosure by using buildings, walls, natural elements, arcades - incorporate physical elements properly such as paving, street furniture, public art, seating, kiosks etc. *(Tibbalds, 2001; Shaftoe, 2008; Carmona et al, 2003; Childs, 2004)
	Color -use color for an identical and pleasure-giving environment (like paving stones, lighting and other elements)	-use trees and flowers to add color and fragrance -use color for joyful environments *(Shaftoe, 2008; Carmona, 2003)

Table 6.1 (Continued)

CONTENT GROUPS	DESIGN RECOMMENDATIONS	LITERATURE
BEHAVIORAL ATTRIBUTES	*Active engagement* -provide a variety of activities to participate (festivals, concerts, shows etc.) -provide activities allowing users of the square spend the day in the square -provide seasonal/periodical activities	-provide 'triangulation' (a physical element making people to talk to strangers); use seating elements, fountains, public art, kiosks etc. *(Carr et al, 1992; Carmona et al, 2003; Gehl, 1987; Whyte, 2009)
BEHAVIORAL ATTRIBUTES	*Enjoyment* (joy) -provide places (cafés, kiosks etc.) that users can hang out with their friends, -provide activities and playgrounds that users can entertain (such entertainment facilities as concerts, art exhibitions, street theatre, festivals, shows etc.)	-use public art -use color -use hard and soft landscaping elements *(Shaftoe, 2008)
	Relaxation -provide a relaxing environment including a variety of natural elements including water elements, comfortable seating, shadow	-ensure security -provide subspaces -provide activities that people will passively or actively engage into and relax -provide play grounds *(Carr et al, 1992; Carmona et al, 2003)
	Curiosity and discovery -create curiosity -include elements (activities as concerts, art exhibitions, street theatre, festivals,shows and seasonal activities etc.) -provide playgrounds -use public art, identical lighting, water plays etc. that will attract and stimulate people to come and discover the place	
	Observing -provide an environment including people and elements to be watched	
GEOGRAPHICAL LOCATION	*Centrality* -locate in central locations with mixed use environment *Accessibility* -provide accessibility by all means such as cars, buses, bicycles and on foot -provide parking facilities	-close to busy pedestrian and vehicular routes and transportation nodes *(Whyte, 2009; Shaftoe, 2008; Marcus & Francis, 1998; Childs, 2004)

Table 6.1 (Continued)

CONTENT GROUPS	DESIGN RECOMMENDATIONS	LITERATURE
NATURAL ELEMENTS	-provide a variety of natural elements (trees, bushes, flowers, lawn areas etc.) -allow users to benefit from sun -allow users to access daylight -allow users to benefit from fresh-air -provide shelter and protection (shadowy areas with trees and other elements) -use natural elements to create sense of enclosure (surrounding and defining the square) -use natural elements to create subareas -use green areas as informal alternative seating -provide regular maintenance	-use the natural elements to create a microclimate, to provide shelter and protection (in a variety of height and shade options) without interrupting the users' sight line and visual access to the activities, others, fountain views etc. -use the advantage of seasonal changes in the environment regarding the natural elements in terms of color and texture -use trees and flowers to add color and fragrance -provide/create slopes and hills (within the grass and lawn area) allowing users to have a better visual access to the main site -let the natural elements cover the hard buildings and introduce a human scale and a softer environment *(Carmona et al, 2003; Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998)
USES AND ACTIVITIES	-provide eating and drinking facilities (cafes, restaurants, kiosks, teahouses, patisseries etc.) -provide vending and shopping opportunities (boutiques, vending stalls, shops etc.)	-provide outdoor tables -provide picnic places -provide shelters -provide adequate and properly located litter bins (to keep the square clean) *(Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998)
LAYOUT	-provide a variety of small areas (subspaces) for various activities -include seating and greenery -provide playgrounds (for children and young, middle-aged) -provide sports fields	-separate subspaces clearly from the main space but subtle -not 'so small' like a private room nor 'so large' that is deterrent and 'alienating' when the place is devoid of people -use level changes for creating subspaces -use landscape elements for creating subspaces *(Marcus & Francis, 1998)
EMOTIONAL APPRAISALS	-provide a comfortable square -provide comfortable seating -provide easily walkable floor -provide natural elements and water elements -provide natural elements and other elements for shelter and protection -provide eating and drinking facilities -provide safe and secure environment -provide a security personnel -provide proper nighttime lighting -provide a clean environment including toilet facilities	-provide easy access to site -provide adequate amount of appropriate furniture -provide human scale environment -provide well-managed environment (in terms of activities, programs, vending and food opportunities and security) -well-maintained and clean environment including gardening, cleaning, repairing, maintenance *(Carr et al, 1992; Carmona et al, 2003; Shaftoe, 2008)

Table 6.1 (Continued)

CONTENT GROUPS	DESIGN RECOMMENDATIONS	LITERATURE
PEOPLE	-provide presence of other people in the square (with activities and uses) -provide a variety of activities, areas for users of different age groups and genders	-provide concerts, open air theaters, social events, art exhibitions, performances, dance shows, festivals (enhancing image and identity of the square as well) -provide creative playgrounds -provide spaces for skateboarding, rollerblading etc. *(Shaftoe, 2008; Whyte, 2009; Marcus & Francis, 1998; Francis M., 1987)
MAINTENANCE	-provide a well-maintained environment with regular maintenance -provide a clean environment with regular clean-ups -provide regular care for the green areas -provide adequate litter bins -provide toilet facilities	-provide regular and persistent maintenance -provide a professional personnel (gardeners, dustmen, repairmen etc.) -provide quick-repairs *(Shaftoe, 2008; Marcus & Francis, 1998)
SPATIAL IDENTITY	-create an ambiance allowing users to identify themselves with the square -produce square as a symbol of its locality	

6.2 FURTHER RESEARCH

This study presented a scientific way of approaching to the design of urban squares; introducing how a research on exploring the perceptions and preferences of users about a 'good' urban square can reveal the significant design attributes. The findings of this study are derived from literature and a scientific inquiry. However, in order to broaden the understanding of perceptions of the users about a 'good' urban square, and to reach more concrete and detailed results, further research can be carried out with the participation of larger respondent groups. This study handled with the case of ÇUSP and included mainly middle-aged respondents. Moreover, further studies can be conducted in various case study areas, for specific age, gender and vulnerable groups respectively such as elderly, young, women and men, as well as disabled people or women with babies.

The study does not introduce a comparative analysis on *how* the Turkish urban square context or the ÇUSP in particular, differ from the western cases; yet this comparison can

be further studied. In reference to the case study area (Çayyolu) and the perceptions and preferences of Çayyolu inhabitants for an urban square, the present study may lead to areas for further research on 'Çayyolu inhabitants', within the context of human-space relations, as a community who is able to define a need of an 'urban' 'public' space. Finally, in practice, the exploratory part of the study can be easily adopted in the design processes of urban squares.

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APPENDIX A

ORIGINAL FORM OF USERS' SURVEY FORM

Bu anket, halkın meydan ve meydan tasarımında yer alan unsurlar açısından algısını araştırmak üzere hazırlanmıştır. Anket 3 bölümden oluşmaktadır ve cevaplandırmanız yaklaşık 15 dakikanızı alacaktır. Anketten elde edilen veriler Şehir ve Bölge Planlama Bölümü, Kentsel Tasarım Anabilim dalı yüksek lisans öğrencisi Başak Zeka'nın tezinde kullanılacaktır.

Yaşınız: 18-25 ☐ 25-65 ☐ 65+ ☐ Cinsiyetiniz: Kadın ☐ Erkek ☐

Mesleğiniz: ..... Oturduğunuz yer: .....

1.BÖLÜM

1.1 Sizin için "iyi" olarak tanımladığınız bir meydan nasıl olmalıdır? Tarif edebilir misiniz? (sizi tatmin eden, beğendiğiniz, ihtiyaçlarınızı karşılayan, kullanabildiğiniz, orada bulunmak istediğiniz bir meydan)

.....

.....

.....

1.2 Başka aklınıza gelen özellikler ya da nedenler var mı? Neler ekleyebilirsiniz?
(meydanının bulunduğu yer/konumu, meydanın fiziksel/görsel özellikleri, duygusal olarak hissettikleriniz veya meydanın bakımı ve meydandaki etkinlikler açısından)

.....

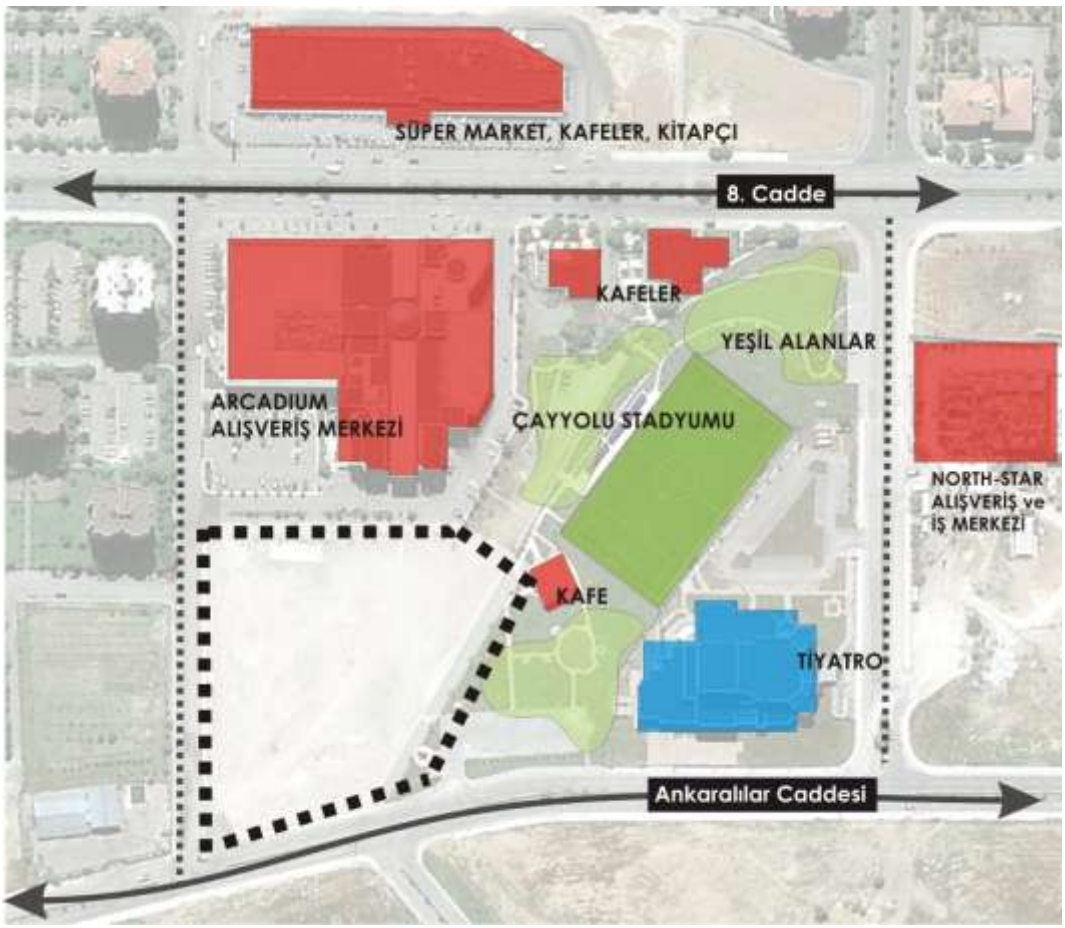
.....

.....

Bulunduğu Yer/Konum	Fiziksel/Görsel Özellikler	Duygusal/Davranışsal	Bakım ve Etkinlikler

2. BÖLÜM

2.1 'Demokrasi Meydanı' projesindeki meydan alanı için, iyi meydan tanımınıza göre, hayalinizde nasıl bir mekan tasarlardınız? Nasıl bir meydan olsun isterdiniz? Sizin için gerekli elemanları nasıl yerleştirirdiniz? Aşağıdaki haritada gösterebilir misiniz?



Bulunduğu Yer/Konum	Fiziksel/Görsel Özellikler	Duygusal/ Davranışsal	Bakım ve Etkinlikler

3. BÖLÜM

3.1 'İyi meydan' tanımınıza göre aşağıdaki açıklamaları 1'den 7'ye kadar değerlendiriniz.
1.Hiç (kesinlikle katılmıyorum) 2.Az (katılmaıyorum)
3. Kısmen az (pek katılmıyorum) 4.Çekimser (fikrim yok)
5.Kısmen çok (biraz katılıyorum) 6.Çok (büyük ölçüde katılıyorum)
7.Kesinlikle (kesinlikle katılıyorum)

3. 2.1 'İyi meydan' tanımınıza göre, Arcadium alışveriş merkezinin iç avlusunu
ne kadar beğeniyorsunuz?
1 2 3 4 5 6 7
☐ ☐ ☐ ☐ ☐ ☐ ☐

3.2.2 'İyi meydan' tanımınıza göre, Arcadium
alışveriş merkezinin iç avlusu için aşağıdaki açıklamaları değerlendiriniz.

	1	2	3	4	5	6	7
-Merkezi (farklı kullanımlar içeren)bir alanda yer alıyor.	☐	☐	☐	☐	☐	☐	☐
-Ulaşılabilir (hızlı ve farklı ulaşım araçlarıyla) bir yerde bulunuyor	☐	☐	☐	☐	☐	☐	☐
-Meydanın sınırlarının ve şeklinin bina ağaç, ve bank gibi elemanlarla tanımlanmış.	☐	☐	☐	☐	☐	☐	☐
-Meydanın büyüklüğü aşağı yukarı 12m-24m olmalı.	☐	☐	☐	☐	☐	☐	☐
- Meydanın büyüklüğü aşağı yukarı 70-100m olmalı.	☐	☐	☐	☐	☐	☐	☐
-Çeşitli oturma elemanları bulunuyor. (banklar, sandalyeler vs.)	☐	☐	☐	☐	☐	☐	☐
-Oturma elemanları hareket ettirilebilir.	☐	☐	☐	☐	☐	☐	☐
-Oturma alanları dışında başka alanlar oturmak için kullanılabilir.(merdivenler, kenarlar, çiçeklikler, yeşil alanlar)	☐	☐	☐	☐	☐	☐	☐
-Sert, kuru ve kaymayan bir zemini var.	☐	☐	☐	☐	☐	☐	☐

	1	2	3	4	5	6	7	1	2	3	4	5	6	7
- Farklı zemin malzemesi var.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Çeşitli doğal elemanlar: yeşil alanlar, ağaçlar, çiçekler yer alıyor.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Güneşlenme alanları var.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Yağmurdan ve rüzgardan ve aşırı güneşten korunaklı.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Meydan, farklı faaliyetlere imkan veren küçük alanlar içeriyor.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
- Geceleri yeterli bir şekilde aydınlatılıyor.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Gün ışığından faydalanabiliyorum.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
- Meydanı oluşturan alanlar ve öğeler insan ölçeğinde.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Sanatsal öğeler yer alıyor. (heykeller, anıtlar, vs)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Genel anlamda rahat olabildiğim bir yer.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Kendimi güvende hissediyorum.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
-Beni dinlendiren bir yer.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
- Etrafı gözlemleyebildiğim bir yer.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
- Çeşitli etkinliklere katılabiliyorum.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

-Meraklandırıp, keşfetmeye yönelten bir yer.	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐
-Eğlenebildiğim bir yer.	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐
-Farklı yaş grupları için çeşitli etkinliklerin yer aldığı alanlar var.	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐
-Yeme-içme imkanları var.	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐
-Sokak satıcıları var. Alışveriş imkanı var.	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐
-Bakımlı ve temiz.	☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐
	1 2 3 4 5 6 7	1 2 3 4 5 6 7

APPENDIX B

ORIGINAL FORM OF DECISION-MAKERS' SURVEY FORM

Bu anket, karar vericilerin, tasarımcı ve plancıların meydan ve meydan tasarımında yer alan unsurlar açısından algısını araştırmak üzere hazırlanmıştır. Anket 2 bölümden oluşmaktadır. Anketten elde edilen veriler Şehir ve Bölge Planlama Bölümü, Kentsel Tasarım Anabilim dalı yüksek lisans öğrencisi Başak Zeka'nın tezinde kullanılacaktır.

Mesleğiniz: ……

1.BÖLÜM

1.1 Yenimahalle Belediyesi kent meydanı projelerinde nasıl bir planlama ve tasarım yaklaşımını benimsiyor?

……

……

……

……

1.2 Çayyolu'ndaki kent meydanı projesini tasarlarken belediyenin niyeti, amacı neydi? Belediye Çayyolu meydan projesini neden yaptı?

……

……

……

……

1.3 Neden bu alanı seçtiniz? Neden Çayyolu? Çayyolu'nda neden burası?

……

……

……

……

1.4 Belediyenin uyguladığı meydan tasarım ilkeleri var mı? (konum, fiziksel/görsel özellikler, etkinlik/bakım, insan faktörü)

.....

.....

.....

.....

Bulunduğu Yer/Konum	Fiziksel/Görsel Özellikler	Duygusal/ Davranışsal	Bakım ve Etkinlikler

1.5 Bunların hangileri Çayyolu'nda benimsendi? Diğerleri neden benimsemedi?

.....

.....

.....

.....

2. BÖLÜM

2.1 Aşağıdaki açıklamaları Çayyolu Demokrasi Meydanı projesinde dikkate alınan tasarım ilkeleri açısından değerlendiriniz.

1.Hiç (kesinlikle katılmıyorum) **2**.Az (katılmıyorum)
3. Kısmen az (pek katılmıyorum) **4**.Çekimser (fikrim yok)
5.Kısmen çok (biraz katılıyorum) **6**.Çok (büyük ölçüde katılıyorum)
7.Kesinlikle (kesinlikle katılıyorum)

	1	2	3	4	5	6	7
-Merkezi (farklı kullanımlar içeren)bir alanda yer alması.	☐	☐	☐	☐	☐	☐	☐
-Ulaşılabilir (hızlı ve farklı ulaşım araçlarıyla) bir yerde bulunması.	☐	☐	☐	☐	☐	☐	☐
-Meydanın sınırlarının ve şeklinin bina ağaç, ve bank gibi elemanlarla tanımlanması.	☐	☐	☐	☐	☐	☐	☐
-Meydanın büyüklüğünün yaklaşık 12m-24m olması.	☐	☐	☐	☐	☐	☐	☐
- Meydanın büyüklüğü yaklaşık 70-100m olması.	☐	☐	☐	☐	☐	☐	☐
-Çeşitli oturma elemanlarının bulunması. (banklar, sandalyeler vs.)	☐	☐	☐	☐	☐	☐	☐
-Oturma elemanlarının hareket ettirilebilir olması.	☐	☐	☐	☐	☐	☐	☐
-Oturma alanları dışında başka alanların oturmak için kullanılabilmesi. (merdivenler, kenarlar, çiçeklikler, yeşil alanlar gibi)	☐	☐	☐	☐	☐	☐	☐

-Sert, kuru ve kaymayan bir zeminin olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Farklı zemin malzemesinin olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-Çeşitli doğal elemanların: yeşil alanlar, ağaçlar, çiçekler yer alması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-Güneşlenme alanlarının olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-Yağmurdan ve rüzgardan ve aşırı güneşten korunaklı olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Meydanda, farklı faaliyetlere imkan veren küçük alanların olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Geceleri yeterli bir şekilde aydınlatılması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-Gün ışığından faydalanılabilmesi ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Meydanı oluşturan alanlar ve öğelerin insan ölçeğinde olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-Meydanda genel anlamda rahat olunabilmesi. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-İnsanların kendilerini güvende hissettikleri bir meydan olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-İnsanları dinlendiren bir meydan olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-İnsanların etrafı gözlemleyebildiği bir meydan olması. ☐ ☐ ☐ ☐ ☐ ☐ ☐

-İnsanların çeşitli etkinliklere katılabildiği bir meydan olması. (konserler, sosyal etkinlikler, gösteriler, sergiler vs) ☐ ☐ ☐ ☐ ☐ ☐ ☐

-İnsanları meraklandırıp, keşfetmeye yönelten bir meydan olması. ▢ ▢ ▢ ▢ ▢ ▢ ▢

-İnsanların eğlenebildiği bir meydan olması. ▢ ▢ ▢ ▢ ▢ ▢ ▢

-Meydanda yeme-içme imkanlarının bulunması . ▢ ▢ ▢ ▢ ▢ ▢ ▢

-Sanatsal öğelerin yer alması. (heykeller, anıtlar, vs) ▢ ▢ ▢ ▢ ▢ ▢ ▢

-Farklı yaş grupları için çeşitli etkinliklerin yer aldığı alanların olması . ▢ ▢ ▢ ▢ ▢ ▢ ▢

-Sokak satıcılarının, alışveriş imkanının bulunması. ▢ ▢ ▢ ▢ ▢ ▢ ▢

-Meydanın bakımlı ve temiz olması. ▢ ▢ ▢ ▢ ▢ ▢ ▢

APPENDIX C

BACKGROUND INFORMATION OF THE RESPONDENTS'

Table C.1: Background information of the respondents

RESPONDENTS	AGE GROUP	GENDER	OCCUPATION	COMING FROM
1	25-65	FEMALE	Housewife	Konutkent-1
2	18-24	FEMALE	Student	Çayyolu
3	18-24	FEMALE	Student	Yaşamkent
4	18-24	MALE	Student	Koru mah.
5	18-24	FEMALE	Student	Koru mah.
6	18-24	MALE	Executive asistant	Oyak-7
7	25-65	FEMALE	Shopkeeper	Mesa Koru
8	25-65	FEMALE	Housewife	Toki Prestij
9	25-65	FEMALE	Instructor	Ümit mah.
10	25-65	FEMALE	Research assistant	Turkuaz Evleri
11	25-65	FEMALE	Computer eng.	Oyak 10
12	25-65	MALE	Economist	Oyak 10
13	25-65	MALE	Mechanical eng.	Konutkent-1
14	25-65	MALE	Architect	Çayyolu
15	25-65	MALE	Computer programmer	Çayyolu
16	25-65	MALE	Environmental eng.	Ümit mah.
17	25-65	MALE	Civil eng.	Çayyolu
18	25-65	FEMALE	City planner	Koru mah.
19	25-65	MALE	City planner	Koru mah.
20	25-65	FEMALE	Research assistant	Ümit mah.
21	65+	FEMALE	Retired bank employee	Konutkent-2
22	65+	FEMALE	Retired	Mesa Koru
23	65+	MALE	Retired	Mesa Koru

Table C.1: Continued

RESPONDENTS	AGE GROUP	GENDER	OCCUPATION	COMING FROM
24	65+	MALE	Retired	Koru mah.
25	65+	MALE	Retired Teacher	Çayyolu
26	65+	MALE	Retired Instructor	Çayyolu
27	65+	MALE	Journalist	Mesa Koru
28	65+	FEMALE	Retired Teacher	Oyak-7
29	65+	FEMALE	Retired Teacher	Oyak-7
30	65+	FEMALE	Housewife	Konutkent
31	25-65	FEMALE	Environmental eng.	Yaşamkent
32	25-65	FEMALE	Finance	Toki Prestij
33	25-65	FEMALE	Business admin.	Mesa Koru
34	25-65	FEMALE	Executive Assistant	Turkuaz Evleri
35	25-65	FEMALE	Advertising business	Konutkent
36	25-65	MALE	Self-employment	Çayyolu
37	25-65	MALE	Computer eng.	Koru mah.
38	25-65	MALE	Lawyer	Çayyolu
39	25-65	MALE	Business admin.	Konutkent
40	25-65	MALE	Self-employment	Konutkent
41	25-65	MALE	Graphic designer	Çayyolu
42	18-24	MALE	Student	Konutkent
43	18-24	FEMALE	Student	Oyak-7
44	18-24	MALE	Student	Çayyolu
45	25-65	MALE	Bureaucrat	Konutkent
46	25-65	FEMALE	Geological eng.	Toki Prestij

APPENDIX D

RESULTS OF THE MULTIPLE REGRESSION ANALYSIS

Section 1: Multiple regression Analysis to explain the relationship between users' preference and generated attributes of a 'good' urban square.

Table D.1.1: Descriptive Statistics

	Mean	Std. Deviation	N
A_PREF	3.2391	1.60810	46
P_LOC	3.39	1.556	46
P_VIS	6.1522	3.37288	46
P_NAT	2.4783	1.91763	46
P_LAY	1.7609	1.75353	46
P_EMOT	1.5652	1.24101	46
P_BEH	4.5217	2.82638	46
P_USE	2.0870	1.61694	46
P_MAIN	1.3043	1.31436	46
P_PEOP	1.4565	1.27726	46
P_IDEN	.2826	.62050	46

Table D.1.2: Variables entered/removed

Model	Variables Entered	Variables Removed	Method
1	P_PEOP	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a Dependent Variable: A_PREF

Table D.1.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.433(a)	.187	.169	1.46628	.187	10.126	1	44	.003

a Predictors: (Constant), P_PEOP

Table D.1.4: Anova(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.771	1	21.771	10.126	.003(a)
	Residual	94.599	44	2.150		
	Total	116.370	45			

a Predictors: (Constant), P_PEOP

b Dependent Variable: A_PREF

Table D.1.5: Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.446	.330		7.413	.000
	P_PEOP	.545	.171	.433	3.182	.003

a Dependent Variable: A_PREF

Table D.1.6: Excluded Variables

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	P_LOC	-.091(a)	-.667	.508	-.101	1.000
	P_VIS	-.113(a)	-.828	.412	-.125	1.000
	P_NAT	-.015(a)	-.105	.917	-.016	.940
	P_LAY	-.188(a)	-1.181	.244	-.177	.723
	P_EMOT	.123(a)	.882	.383	.133	.955
	P_BEH	.012(a)	.086	.932	.013	.998
	P_USE	.013(a)	.086	.932	.013	.831
	P_MAIN	.111(a)	.802	.427	.121	.968
	P_IDEN	-.112(a)	-.807	.424	-.122	.972

a Predictors in the Model: (Constant), P_PEOP

b Dependent Variable: A_PREF

Section 2: Multiple Regression Analysis to explain the relationship between users' preference and perceived attributes defined in previous research.

Table D.2.1: Descriptive Statistics

	Mean	Std. Deviation	N
A_PREF	3.2391	1.60810	46
A_LOC	5.1739	1.72310	46
A_VIS	3.4385	.92995	46
A_NAT	2.8804	.73549	46
A_LAY	2.9130	2.18913	46
A_EMOT	4.5217	1.63285	46
A_BEH	2.7870	1.20473	46
A_USE	5.1413	1.66554	46
A_MAIN	6.3261	1.03396	46
A_PEOP	3.1522	2.04361	46
A_IDEN	.0000	.00000	46

Table D.2.2: Variables entered/Removed

Model	Variables Entered	Variables Removed	Method
1	A_EMOT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	A_LOC	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	A_MAIN	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a Dependent Variable: A_PREF

Table D.2.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.709(a)	.503	.491	1.14706	.503	44.443	1	44	.000
2	.745(b)	.555	.534	1.09795	.052	5.024	1	43	.030
3	.785(c)	.617	.589	1.03061	.062	6.804	1	42	.013

a Predictors: (Constant), A_EMOT

b Predictors: (Constant), A_EMOT, A_LOC

c Predictors: (Constant), A_EMOT, A_LOC, A_MAIN

Table D.2.4: Anova(d)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.476	1	58.476	44.443	.000(a)
	Residual	57.893	44	1.316		
	Total	116.370	45			
2	Regression	64.533	2	32.266	26.766	.000(b)
	Residual	51.837	43	1.206		
	Total	116.370	45			
3	Regression	71.759	3	23.920	22.520	.000(c)
	Residual	44.610	42	1.062		
	Total	116.370	45			

a Predictors: (Constant), A_EMOT

b Predictors: (Constant), A_EMOT, A_LOC

c Predictors: (Constant), A_EMOT, A_LOC, A_MAIN

d Dependent Variable: A_PREF

Table D.2.5: Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.082	.503		.164	.871
	A_EMOT	.698	.105	.709	6.667	.000
2	(Constant)	-.680	.589		-1.153	.255
	A_EMOT	.601	.109	.611	5.510	.000
	A_LOC	.232	.103	.248	2.241	.030
3	(Constant)	1.359	.957		1.419	.163
	A_EMOT	.729	.113	.740	6.421	.000
	A_LOC	.322	.103	.345	3.126	.003
	A_MAIN	-.487	.187	-.313	-2.608	.013

a Dependent Variable: A_PREF

Table D.2.6: Excluded Variables(d)

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	A_LOC	.248(a)	2.241	.030	.323	.844
	A_VIS	.123(a)	1.032	.308	.156	.794
	A_NAT	.079(a)	.650	.519	.099	.784
	A_LAY	.015(a)	.134	.894	.020	.881
	A_BEH	.238(a)	1.623	.112	.240	.506
	A_USE	-.069(a)	-.563	.576	-.086	.761
	A_MAIN	-.187(a)	-1.507	.139	-.224	.713
	A_PEOP	.003(a)	.027	.978	.004	1.000
2	A_VIS	.086(b)	.737	.465	.113	.775
	A_NAT	.091(b)	.791	.433	.121	.782
	A_LAY	-.085(b)	-.724	.473	-.111	.763
	A_BEH	.250(b)	1.794	.080	.267	.505
	A_USE	-.172(b)	-1.414	.165	-.213	.680
	A_MAIN	-.313(b)	-2.608	.013	-.373	.633
	A_PEOP	-.071(b)	-.665	.510	-.102	.911
3	A_VIS	.121(c)	1.107	.275	.170	.764
	A_NAT	.085(c)	.784	.438	.121	.782
	A_LAY	-.035(c)	-.315	.754	-.049	.739
	A_BEH	.183(c)	1.342	.187	.205	.482
	A_USE	-.095(c)	-.781	.439	-.121	.626
	A_PEOP	-.023(c)	-.219	.828	-.034	.878

a Predictors in the Model: (Constant), A_EMOT

b Predictors in the Model: (Constant), A_EMOT, A_LOC

c Predictors in the Model: (Constant), A_EMOT, A_LOC, A_MAIN

d Dependent Variable: A_PREF