The Spatial Analysis Of Public Squares In A Rapidly Changing Social Setting-Konak Square As A Case Study

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ABSTRACT

Squares as gathering places in cities have arose from the need for coming together which is necessary for the continuation of social life. Because of this, squares have an important place in urban life. In times, squares like the other urban spaces, have showed a change according to religious beliefs, economic and politic life of society and human needs. In spite of this, squares, in every age, act as an important element to provide social experience and occurrence of city identity.

Urban public squares provide an effective ground for human interaction and communication. Therefore, they are important to determine the social character of cities and cultural identity. Urban public squares can establish a proper stage for spontaneous social experience and multiple human relationship in a direct relation with the environment. Because of this, they provide more opportunity for social experience than a barely sheltered place of our so called modern society.

In contrast to many European cities, there is not a well established public square understanding which provides social experience and gives an identity to the city in our country. Although the squares have become a necessity for our society due to rapid structural changes in Turkish social life, they are still neglected by our current urban design practices.

For this reason, this study focuses on the spatial analysis of public squares in a rapidly changing social setting.

Thus the study area of "public squares" is chosen as a research topic because of its importance in our society as well as in urban design.

This research also aims to address the need for public squares in our society and contains a study in an urban design project in Konak İzmir through an analysis of the characteristics of the square.

KEY WORDS: Square, Space, Place, Public Space, Plaza, Urban Space, Enclosure, Continuity, Diversity, Vitality, Perception, Spatial Perception.
Kent içinde toplanma mekani olarak meydanlar; toplumsal yaşamı sürdürübilmek için gerekli olan bir araya gelme ihtiyacından doğmuştur. Bu yüzden meydanlar kentsel yaşamda önemli bir yere sahiptir.

Zaman içinde diğer kentsel mekanlar gibi meydanlar dini inançlar, toplumun ekonomik ve politik yaşamına ve bireylerin ihtiyaçlarına bağlı olarak bir değişim göstermişdir. Meydanlar her dönemde, toplumsal deneyimlerin sağlanmasında ve kentsel kimliğin oluşumunda önemli bir öğe olarak alınmıştır.


Çoğu Avrupa kentlerinin tersine kentlerimizde toplumsal deneyimlerin sağladığı kente bir kimlik kazandırıcı düzenli bir kentsel mekan anlayışı yoktur. Meydanlar toplumumuzda bir ihtiyaç haline gelmesine rağmen, Türk toplumsal yaşamında hızla değişen yapının dolayısı son dönem kentsel tasarım pratikleri tarafından hala ihmal edilmektedir.

Bu sebepten dolayı bu çalışma hızla değişen bir toplumsal yapı içinde meydanlarının mekansal analizi üzerinde odaklanır.

Sonuçta, kentsel tasarımında olduğu kadar toplumumuz içindeki öneminden dolayı “Halk Meydanları” bir çalışma konusu olarak seçilmiştir. Bu araştırma toplumumuzda halk meydanlarına olan ihtiyaçlardan bahsetmeyi de amaçlamaktadır ve meydanların karakteristiklerinin bir analizi doğrultusunda İzmir Konak’ta bir kentsel tasarım projesi içinde bir çalışmaya içerir.

ANAHTAR KELİMELER: Meydan, Mekan, Yer, Kamu Mekanları, Plaza, Kentsel Mekan, Kapalılık, Süreklilık, Çeşitlilik, Canlılık, Algu, Mekansal Algı.
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CHAPTER I

INTRODUCTION

In every age, open space to advance social contact and provide place for the public action is needed. The need for this urban space that is square is still prevalent today. But, in our country, giving an importance to deficiency of qualified urban spaces and squares decrease.

In Ottoman settlements, public life was formed by religious and commercial activities. Consequently, mosque courtyard or place in front of the mosque, which is surrounded by commercial functions, replaced squares. Besides, place which is expanding and intersecting of street was formed wide blanks between district. These blanks were formed quarter squares too.

Public life and people needs show differences in time. With the change of public life and people needs, urban spaces had been changed also. Squares are a good example of this change in urban space. Nowadays, spaces, which are the traffic junction, replaced square where is the people coming together and realising social and cultural activities. So, the people don’t use these spaces which are surrounded by the traffic way.

Urban space, which reflects social and cultural identity, takes an important place to the perception of city and formation of city image. However, perception of city and be in possession of city image is very difficult in our country. Especially, streets and squares, which constitute urban spaces lost their identities because of the visual character of towns, are continuously deteriorating. There are many reasons for this some of them can be summarised as follows.

- Recently, with zoning plan, organic square in which fountain, cafe, mosque, marketplace take place around was disappeared.

- In the historical process, as urbanisation accelerates the visual character of towns is being neglected.

- Authorities become powerless against the numerous demands that come along as the population of cities increase.

- Over population ruins not only the character of cities, but also lowers the quality of life. The best known example of this is seen in the loss of control over motor vehicles. And technology is not always properly handled from the view of conservation.
Planning regulations are not applied properly most of the time due to economic and political pressures, and this contributes to the deterioration of the environment too.

- As towns change planners reach syntheses without sufficient analyses. Besides, the city planners as a problem don't take the subject square, which is social need in urban life, into consideration too.

- Most important of all the problems is the lack of education about townscape of necessary organisations and of educators. As a result of this, people seem not to sense what happens around them and how it affects their lives.

But, squares have a very important place in attending social transition and interaction and defining of social identity and culture of city. Because of these reasons, the stressing of the necessity of squares which we forget, gain importance and constituted of aim of this thesis.

At these days, which are considered as an information and transmission age, to the communication or every kind of relations, people get advantage from the technological development. For supplying his requirements, people removes his needs depending on computer, instead of establishing communication with people infallibly. So it causes to the individualisation of people and closing of them in their home or office himself.

Whereas human kind needs other living and other people throughout of the history, because, sharing and relationship with other people are more important feature of human nature. But the changing in life style, specialising in different subject cause to the increasing of the people interest, therefore needs coming together of people are not provided, because of timelessness or different reasons. These reasons caused interruption and psychological illness, which are caused of loneliness.

At this point, the, importance of squares as an open places which can be realised of social and cultural activities of people or can be provided needs coming together of people, constitutes.

Squares in historical perspective are not only open space or place which is realised the commercial activities but are exchange centre of knowledge and information also. The desire of which comes from different society and intersects at one point and transferring a part of its cultures opposite side constituted the base of human and society life. Squares as an urban space, which is realised to the best manner of this requirement,
are showed. We can see the squares to be urban spaces in which cultural relationship is provided at maximum level in cities.

In processes of socialisation, social groups and individual effort provide cultural production and its development. Because of, supplying of society combination the squares show an important place in defining the hints of culture and social background of the city.

Cities every age, squares as an open place to advance social contact and to provide place for public action is used. The need for this function of public places is still prevalent today. The human being needs an environment of which he can comprehend and control. The principle aim in the shaping of his environment must be to provide appropriate places for his cultural growth. (Lalonde, 1987)

A gathering places which is amused collectively, improve of beliefs, searching of following away in social management and its explain are requirement. The squares as assembled places developed and provide city and society life so it is seen that meeting and gathering together is the main establishment reason of city square. So, meeting and gathering is showed a principal foundation reason of City Square. (Cansever, 1994)

City has a dynamic structure. The cities grow together with the structure of socio-economic and politic structure of society and the life style of people play importance role on the development of the city. Public life shows differences in time, beside the needs of the people change in time too.

"Human beings reshape the 'laws' of social and economic behaviour in different eras of history in a way that many human institutions because it is nongenerational, lacking the definite life span of the human organism" (Vance, 1990,p.7). Social needs, changing of social, economic and politic life cause to changing of urban fabric (house, street, square) too.

History of square has been started with age of Greek cities. In Hellenistic times, commercial, education, meeting, visiting and entertainment establishing surround agora. Squares were the places, which were making cultural, social, economic, religious, entertainment and recreational activities in early times.

In Medieval cities, the squares surrounded educational, social and religious buildings got importance. In Renaissance and Baroque times, the squares were designed in front of places for ceremonies. In these times when cities got more development, open spaces in front of municipal buildings are formed as a square.
After, Industrial Revolution caused rapid transformations in every aspect of urban life. Besides, social and physical structure of city was changed too. Then, in Twentieth Century, rationalisation and standardisation become important tools of the modern movement to provide an well-ordered society and well ordered environment. This therefore led to the 'uniformity' and 'monotony'.

Negative changes in relation between people and his environment caused to change of the meaning of house, street and square which occurrence elements of urban fabric in urban spaces. After that with occurrence of the modern city, squares lost the complex texture and the variety of their functions because of the transformation of their physical configuration. Place where the community gathered for a collective function is replaced by a space where single individuals act.

Because of its feature to be as an urban space in which social communication and interaction are provided and its role determining the massive culture and social identity of city. Because it is open to everybody and every free action, squares give a full opportunity to a social experience for these reasons in this study the need for squares are strongly emphasises.

Like Erdal Atabek's words “Squares are liberty of city, to become agitated, humanizing. It is necessary to tell this to human.”

In chapter 2nd, for squares are accepted important element of open space, which is, formed urban fabric, the concept of space is explained more specifically to understand well. Beside this, in this chapter the importance of urban spaces and the importance of these spaces in city are the remarked.

In chapter 3rd, historical evaluation of square regarding it as a modified urban space is examined. The dominant dynamics behind the evolution of squares and how community use and shape them will be the scope of the study. Space-place qualities and symbolic meaning are regarded as determinants for evaluating criticising and comparing the concept of squares. How social life had changed depending on culture, politics and economics in different settlements and how squares had physical changed in time is studied with western and eastern examples.

Today, urban public squares are faced with serious problems. Therefore, open space and public squares where the people must come together and realise the cultural activities have loosed the former meaning and importance. In chapter 4th, the factors which cause this are studied.
There are different ways of interpreting squares. In order to be able to understand the square with all its aspects, generalise and categories the square according to its social, physical features and its perceptual characteristics is made in chapter 5th.

In the 7th chapter the need for Public Square in our society is evaluated and the project of Konak Square, which is aimed to answer our social needs, analysed in their spatial characteristics.
CHAPTER II

THEORETICAL FRAMEWORK OF SPACE CONCEPT

2.1. Space

Humans occupy and defend a territory, psychologically and physically. These territories relate to human interaction and perception. Space as a 'territory' which defines and limits of human life directly related with form. Therefore, the concept of space and urban space needs an explanation.

Different groups and philosophers in historical perspective defined space concept. However, first, Aristotle has defined the concept of space. According to his theory, space was a dynamic area. This area was formed from the place, which include all directions and features. However, in 17\(^{th}\) century, theorists based space on Eclid Geometry instead of Aristotle's definitions. According To Eclid Geometry, space was homogeneous and limitless.

In 19\(^{th}\) century, these theories ended with non-Eclid theories, which defined the space as area, which was limited by physical dimension. J. Cousin said that a spatial part in limits, which can, perceived by the people is space, besides, he defined every spatial part which gives the sense of enclosures as space.

American Heritage Dictionary (1979) defines space “as a set of elements of points satisfying specified geometric conditions in a three dimensional field of everyday experience the distance between two points or the area of volume between specified, boundaries”. According to Trancik, this definition was interpreted as “lateral enclosure” for urban spatial design which he regard ‘creation of enclosure ‘ as the most important factor for the perceiving of space.

J. Piaget in his book, emphasised that perception of space occurred not only physical limits, but also with social and cultural values which is own people. C. Norberg Schulz (1979) calls this event as existential space. The user bases existential space on perception of space. C. Norberg-Schulz makes the following comment on the connection between enclosure and external space. The distinctive quality of any man made place is “enclosure” and its character and spatial properties are determined by how it is enclosed. Enclosure primarily means a distinct area, which is separated from the surroundings by means of a built boundary. The main urban elements are centres
and paths. As such they are enclosures; their spatial density in fact depends upon the presence of relatively continuous lateral boundaries.

Like Trancik and C. Norberg-Schulz, Mathlock (1991), also, emphasised creation of enclosure to define ‘space’. He pointed out that, human perception is primarily visual; and the visual perception

Primarily spatial. Accordingly our sensual “perception of space” is primarily visual; more specifically it is spatial. It is defined by enclosure and made understandable by light.

Mathlock in his book grouped space, emphasising its behavioural aspects, into four categories: intimate, personal, social and public. He defined each one, giving “situational personality of humans” within each category.

Trancik (1986), divide the space concept into two types emphasising the morphological qualities as hard spaces and soft spaces. According to him, architectural wall functions as major gathering for social activity bound hard spaces. Soft spaces, on the other hand, are those dominated by natural environment, for instance, soft spaces are parks, and gardens which provide necessary relief from urban chaos.

Relph, in his study “Place and Placelessness”, interpreted existential space concept as space which people lives in every time, makes his activities, provides relationship with his around and changes lasting with effect of this relationship. Human being not only perceived space or defined space, which he lives in but also, designed this space for his life. So architectural concept arose. People design space for his needs and his comfort, in the same time relationship with space, architectural space can be defined as a concrete shape of existential space.

C. Norberg Shulz (1979) categorised architectural space from the macro scale through the micro scale. When he makes this arrangement, he takes into consideration relationship between people and his environment too. (Schema, 2. 1. 1)

-Geography
-Landscape
-City
-Street
-Home
Different definition can be related with urban space. If aesthetic value is not taken into consideration, urban space can be evaluated as an area between buildings in cities or other settlements.

According to Ashiara, urban space was defined, as all kind of space between buildings and this space was called as architectural without a roof. Besides, urban space, also, is called as exterior space.

In definition of Francis, urban space is an open space, which is designed and formed for people activities. Parks, residence environment, playing area, public open place; urban square, streets and commercial centre contain this group.

Rob Krier in his famous work 'Urban Space' (1979) complains that; "we lost the sight of the traditional understanding of urban space". The concept of urban space, according to him, is consistent with the concept of aesthetics. He believes,
without aesthetic criteria imposed into the urban space concept, we are confronted with all types of spaces between buildings in towns and other localities as urban space, which Trancik articulates as "void" or "ground". Krier believes that, the clear legibility of geometrical characteristics and aesthetic qualities should overlap in order to perceive urban space, which is geometrically bounded by variety of elevations.

Types in art history classify aesthetic characteristics of urban space. However, Krier observes that the accepted styles and types are usually identified with the social structure prevailing at the time in question. Moreover, every period of history forms a unity with its own internal logic. Therefore, the aesthetic quality of urban space should be intermingled with the identity of form, content and meaning.

For Krier, activities in urban space take place in public and private spheres and public space exercised a powerful influence on the design of private space in all periods. Urban space is the stage for social ritual where perfect match between individual and collective is established. It also gives opportunity to a person to perform actions outside the familiar territory of his own home.

Rossi in 1982, like Krier defends the traditional city morphology in approaching to urban space concept. Unlike Krier intimate scale of historic cities is not kept. Thus, although traditional urban space is invoked, it is subtly displaced. He believes that the architectural elements and city form a collective 'memory' urban space like street, plaza, arcade all reappeared in his work, but this reappearance is transformed by new technology. Rossi emphasising the memory in the city defends designs, which have a minimum contextual association to its surrounding environment. His theory of city memory contrast with his apprehension of popular codes of architecture.

Trancik gives three important components of successful urban space as creation of enclosure, the surface pattern and the focal points. According to Trancik, a finite boundary as the primary element is good urban space. So creation of enclosure is more important factor in hard spaces then the other.

Creation of enclosure: It described the limits, the degree of coverness the balance of fullness, emptiness and limiting elements of it. The scales of the walls that are connected with the scales

Of human, and the ground level which that frame is balanced is a factor on the description of the creation enclosure.
Three-dimensional pattern: It refers to the materials, texture and composition of the ground level. If a ground level is formed with the shown on the quality of materials, the sensitivity that texture and successful composition fiction, it gives a sense of character to the space in the visual respect.

Objects in space: The objects as focal points that make the space memorable—(like sculptures, water items, trees etc.) are used to define the centre and they give animation to the space.

The most successful urban space precedents comprise a rich mixture of these three organisational concepts.

The concepts of enclosure in modern day urban spatial studies are evaluated not different from Site's approach, which was among the first theoreticians of urban space. Through his analysis, he came to the conclusion that "enclosure" was the most significant component of successful urban space. Of Sitte's many principles about urban fabric, the concept of enclosure was the most dominant. He argued convincingly the beauty and positive visual effects of enclosed space in cities. In his book written in 1889, Camillo Sitte referred to the lack of artistic quality in exterior space and importance of conceptualisation of urban spaces as enclosed entities.

According to Edmund Bacon (1979) mass and space is the basic ingredient of architectural design and awareness of space engages the full rage of senses and feelings. Spirit should be an integral part of space in order space to serve as a link between man and the universe. In urban land, volumes of space must be established and they must be infused with a spirit, which is generated by architectural forms. To establish richness and variety in the city, urban space needs to be in scale with the needs of the present time and defined by means, which are in harmony with modern technology.

E. Bacon pointed out the importance of 'enclosure': "To define an urban space first criteria is to delimit space by structural devices such as walls and the second one is to infuse a spirit which engender the senses and the emotions of the people who use it."

Bacon believes that, architectural forms, textures, materials modulation of light and shade, colour all combines to inject a quality or spirit that articulates space.

The enclosure of space plays an influential part on the formation of an intensive socialisation on a street or square. The starting point of successful urban squares that they are though and taken in hand as a space limits. The limitations strengthen the visual quality of enclosure spaces.
Enclosure, being the basic feature of defining a place were successfully used in the masterpiece squares, like the piazza Del Compo in Siena; the Piazza San Marco in Venice; Bernini’s famous Piazza San Pietro and Michelangelo are the Campidoglio in Rome and finally Camillo Sitte’s Votive Plaza in Vienna around the existing cathedral in order to define the forecourt.

The main subject depends on human perception and the limitation of space; terms like natural, artificial, and mixed space are used to denote the differences in limiting elements. The space is perceived by all of human senses, and these perceptions are compared with the situations, which are stored in the memory. Every society’s imagination of and behaviour in space differ greatly because of cultural differences. Each cultural system reflects its own life style to the idea and use of space. Thus, the word 'space' can not have an absolute and unalterable meaning otherwise; space of totally different characters could not be created throughout the history.

Urban spaces can be examined two main groups, about enclosure: positive spaces and negative spaces (Fig.2.2.1). Negative spaces can be defined as spaces with no definite shape and leftover spaces after the construction of the buildings. While as positive spaces include the ones that have sharp and definite forms. Plan geometry of these two groups has completely different values and distinction can be seen most clearly in form-ground relation diagram.

Figure 2.2.1. Positive and Negative space
The most important distinction between positive and negative spaces lies in their functions. So that, in positive spaces people feel comfortable and use them quite frequently. In negative spaces, on the other hand, they feel relatively uncomfortable and show no tendency to use these spaces.

For example, Korosec-Serfaty in their study in Malmo (Sweden), about the daily usage of Startorget Square, emphasised that enclosure quality is an important factor among the ones which make a space active and social.

Alexander, in his last study “A New Theory of Urban Design”, regarded the urban space quality as one of seven basic principles that affect the urban environment formation, and proposed that efforts are needed in forming harmonised and well-designed urban spaces while designing urban buildings.

Jean Cousin, too, mentioned the same points of C. Alexander in defining the negative/positive space (Fig. 2.2.2). Related, he emphasised that besides definite forms and enclosure, positive space should be in human scale. Indeed, besides obtaining a limit, “scale” has an important effect in achieving sense of comfort, security, and enclosure. Although, urban space is limited by architectural component usage of dimensions, proportions that are very far-off human scale both vertically and horizontally would disconnect the usage and attraction of people to the space.

Figure 2.2.2. Positive and Negative space
Michael Leonard and Steve Peterson defined the limited, enclosed space as a static space and unlimited open space as dynamic space for it provides all kinds of movement to direction. However, Jean Cousin mentions that the spaces defined at positive-enclosed statically can create unexpected access and so it can be possible to add an extra attraction to the space and diverse its statically characteristic into dynamic. Therefore, the stability of enclosed space would diminish by the attractiveness of the access.

Although, negative space, because it has infinite directions and is accepted as a result, it has no axis canalising the direction and its statically character gains importance. However, an attraction element that would be located in a negative space can be located in a negative space can create visual axis between people and object and its dynamic characteristic will gain importance.

After defining the space and urban space concept in its urban context, now importance of urban space in urban fabric will be discussed.

2.1.2. The Place of Urban Spaces in Urban Context

Urban space is a source, which is necessary to supply of growing requirements of growing in future. Social and economic activities in space need optimum arrangement. So, first, the meaning of urban space concept must be defined and importance of urban space in urban fabric must be emphasised. Thus, we can test easily quality of urban space in the modern city.

Urban space, which reflects social and cultural identity, takes an important place to the perception of city and formation of city image. Urban space together with its round and building groups limit it forms integrity. So it is needed to test together with its round and its form harmony with building groups limit it, while it is perceived. To correct inquire about history of city, its cultural identity, life style. Social and economic condition is possible only this way.

However, perception of city and be in possession of city image is very difficult in our country. Especially, streets and squares that constitute urban spaces lost their identities because of population increase, traffic and planning which is made careless.

Urban space and architectural space were the same meaning in the past because of continuity of between them. Nevertheless, together with modernism, the concept of architectural space changed to the meaning of structural and perspective. Buildings,
which are independent from the each other, were more important than space between buildings. Organisation and quality of urban space accidentally occurred. Therefore, the remains of area after planning formed urban space.

Streets and squares are the most important element of urban space. Formerly, streets created a visual attraction, while they give acute or wide angle, curved line and different perspective. Date day, old identity of street changed because of, growth of buildings, motor vehicles replace pedestrians. Streets order that is grid form or transportation network, which was occurred causally, is a good example to this change. However, the most important problem is the disappearing human scale.

There are not only some streets both for pedestrian and motor vehicle but also streets which was designed for pedestrian. These two groups are separated to the each other as functional. According to research, which is made by Steward about user reaction, the main object to change the road to pedestrian must be not only traffic arrangement but also it includes an organisation land use. Which is providing user needs and produces activity, which is providing relationship with each other?

While pedestrian way as if canal provides pedestrian circulation in city, as well it helps to supply social connection of users. People define his direction according to side and aspect of street when he makes a tour in city. Contrast points, gate points, colours exciting and attractive views in street provide take action of people and they make this space attractive.

Squares, which have been one of the most distinguished space of the cities in every age are intersection points and they have some features such as making people together, having them rest and giving their lives colour. People also are in the need of being together and doing some activities together here.

Squares which reflects social, politic and cultural structure of society, lives in those city are the most important urban space, people to the different society and different culture comes together for relationship with each other and transferring knowledge and information. Therefore, we can see the squares to be urban spaces in which cultural relationships are provided at maximum level in cities.

Today, many squares, which have an importance to the formation of urban identity, is used as traffic junction. Vehicles are replaced by people in usage the squares like streets.

Where as, exterior spaces, which are examined as a complete in urban fabric outside its quality of form, occurred identity of the city with its social and activity
meaning and its history or its name. For understanding well, the role of squares to form of city image and city identity, the concept of square and importance to the city life in historical perspective is needed to be explaining.
CHAPTER III.

SQUARE CONCEPT IN HISTORICAL PERSPECTIVE

Architecture in history has been connected with the past because of elements used, thought and advocated, because of needs, aesthetic values, cultural and economic conditions. Artists and philosophers have designed future while producing works and doing something for their time. In historical perspective, history, social conditions and aesthetic urges came to shape this specific spatial form within the urban community.

We can not bring back the past, but we can learn from it (Webb, 1990). An older square that is an organic part of its community has a family likeness to the other squares. But as in a family each has a distinctive shape and personality. They reflect social life and architectural features in their period.

Urban squares have developed over time, and understanding of them requires an analysis of their historical records. So this section investigates the different ways in which that action is fulfilled throughout history.

3. 1. Western Counterparts

3. 1. 1. Square Concept In Classic Period

Only after 500B.C. did genuine squares develop in Greece. City planning as such, conscious collective and integrated action beyond the mere construction of individual houses, existed already in India and Egypt in the third millennium BC, but never the impulse to shape a void within the town in to a three-dimensional area which we call a "square." This may be explained sociologically; only within a civilisation where the anonymous human being had become important enough to take on a specific shape. This sociological development was paralleled by an aesthetic phenomenon. (Zucker,1959)

3.1.1.1. Greek City

Greek city is characterised with essential qualities of wisdom, logic and reason; it represents the sensitive and aesthetic character of democratic process. (Gallion,
Eisner, 1986) Palace of the kings diminished from the urban fabric of the Greek City. Acropolis in which temples dedicated to Gods of their religion took place replaced the palace. Temples had an important role in the urban life in ancient Greece.

If a Greek town had grown out of the fusion of earlier separate villages, the former sacred area of one of them became the focal point of the new organism. (Zucker, 1959) The connection between freedom and spiritual values was symbolised in the temples built upon the acropolis. Temple was the symbol of democratic way of life for Greek citizen. It acted as a gathering place for political assembly of the people in early Greek towns. The citizen met to consider affairs of the state.

The Acropolis (Fig. 3.1.1. a, b) occurred the nucleus of early Greek Towns. It became gradually the seat of the dominant power and eventually a sacred area, where temples, monuments and altars were located. Although the representative character of the Acropolis and the importance of its sacred area, no kind of space creating relationship between the individual buildings can be observed from the beginning to the very end of Greek civilisation we find at the Acropolis the same lack of an organised overall plan that is evident at the great sanctuaries, such as Eleusis, Olympia and Delphi. (Zucker, 1959)

![Figure 3.1.1.a. The Acropolis of Athens.](Source: Spreiregen, 1965)

![Figure 3.1.1.b. Plan of the Acropolis of Athens.](Source: Spreiregen, 1965)
In early Greeks long before classical and Hellenistic times, the glorious temples, statues and other monuments of an Acropolis had tried consciously to beautify and decorate their sacred areas. But quite obviously they did not aim at any kind of spatial unification and integration from archaic Greek times through the sixth century BC the spatial concept was not yet developed. At this point not developing any techniques of spatial definition on a scale commensurate with human needs are explained. Generally the desire for shopping space developed only very slowly after 500 BC steadily increasing in Hellenistic times until its culmination in Roman architecture and town planning when it become the aesthetically decisive factor. But even then this spatial development referred only to the agora and never to the acropolis (Zucker, 1959).

In Greek towns, city plan should serve for all the people. The functional uses of buildings and public spaces were organised by the arrangement of streets. They provided for the articulation of people and vehicles without interference with the orientation of the dwellings or the assembly of people in the market place. To reach for such an urban pattern, Hippodamus who lived in the fifth century BC applied gridiron to obtain a rational arrangements of buildings and circulation. The perfection of this form and the way of life it represented is best visualised by studying the plan of Miletus, Priene, or Alexandria.

According to Trancik (1986) the phenomenon of creating enclosure originated from Greek civilisation. Sacred land in ancient Greece was enclosed with boundary stones and walls to limit the extent of surrounding construction. These characteristics are seen in such sites as the sanctuary and the agora (market place), dating from as early as the 8th and 7th centuries B.C.

Agora which makes the town a polis was the most important element of Greek civilisation. The polis which were new from the sociological as well as from the architectural viewpoint represented by the agora and was based on the potentialities of a gradually growing democracy. (Zucker, 1959)

Usually the agora (Fig. 3.1.2. a, b) was located in the approximate centre of the, if topographical conditions allowed it. In harbour towns such as Delos, Rodos and Alexandria. It was located as close to the harbour as possible. In some towns of the early period the agora has been found near the gate.
Agora serves as a centre or urban activity in Greek city. In this city most of the social contacts and nearly all business affairs were carried to outside of the home. Although, there is evidence of small individual shops connected to some of the dwellings, it is evident that principal shopping was conducted in the agora. Agora with its geometrical form, was coherent with the grid-iron pattern of the city: It acted as a meeting ground for the inhabitants (Gallion, Eisner, 1986). In other words, primary business and political intercourse were done in and adjacent to agora.

According to Homer the agora in the beginning was primarily the place for political gatherings and legislative assemblies. It changed gradually into a centre for marketing and eventually became solely commercial, whereas the political function of
the agora was taken over by representative meetings in the sacred area of the acropolis. What was left of governmental, administrative, and judicial activities in connection with the agora now was attended to in closed special buildings. (Zucker, 1959) Accessible from the agora square, but not facing upon it, the Assembly Hall, Council Hall and Council Chamber were the main edifices which were the main sources for the vivid political life.

During the archaic period, the layout of the agora was as irregular as that of the whole town and, it was defined by topographical conditions. The area as open as possible and it was visually in immediate contact with the streets. It is not possible mention about a definite space concept and any overall three-dimensional structure. Even if an archaic or an early classical agora seems to be almost closed, the enclosing elements do not refer to each other. They are discontinuous, interrupted by incoming streets and therefore cannot create any real spatial configuration.

Therefore, archaic and classic Athens that the creation of a regularised closed or half-closed square and that there were no continuos formal boundaries of the area. (Zucker, 1959)

In Hippodamic and Hellenistic Times the population of Athens was about 200,000 inhabitants including the slaves. Some other Greek Towns had a population of between 30,000 and 40,000. In all these cities many agoras developed. Individual agoras where specific goods were sold, e.g., the pottery market, the fish market, the meat market, etc. Located besides the traditional agora where public buildings and public functions continued to prevail.

The location of the main agora in Hippodamic and Hellenistic towns was principally the same as in archaic times: in the heart of the town, and in harbour towns as close to the harbour as possible. Its size varied from two rectangular city blocks in Priene, to six in Magnesia and sixteen in Miletus. (Zucker, 1959)

From the very end of the fifth century on, the late classical and Hellenistic agora developed a typical shape, although it would be a mistake to suppose that the completely closed rectangular space now became the common ideal of all Greek town schemes. The agora in Hellenistic times is never completely enclosed and resembles rather a horseshoe.

The agoras of Ephesus and the lower agora in Pergamum, which are at least three-quarters closed, are very late and without any doubt already influenced by Roman concepts.
During the last pre-Christian centuries, altars, shrines, statues, and small temples were erected in increasing number. Thus the functional distinction between agora and acropolis was in this way partially abolished. Individual temples were mostly framed by colonnades or porticoes. Similar colonnades closed also the courtyards of temples adjacent to the agora, in this way unifying the whole area, the north market in Miletus, and in Priene. These porticoes were lower than the temples they surrounded, so that they accentuated the architecture of the buildings and dramatised their appearance. Hence they represented structurally a transition from the individual architecture of the temple to the free and open space of the agora. Porticoes and terraces articulated space and established proportion and scale as the columns, architrave, and pediments accentuated the volume of an individual structure. (Zucker, 1959)

Sometimes the incoming streets were distinctly separated from the agora by gates or by the continuation of the porticoes which framed the agora. Occasionally topographical conditions led to the construction of steps in order to overcome differences in level, and this way the open area was subdivided. (Zucker, 1959)

The agora on the hill of the acropolis of Pergamum is not typical for a Hellenistic town. This partial regularisation within an irregular overall plan expresses clearly the real tendencies of the period toward regularity-so far as it was possible to realise them under the given topographical circumstances. The squares were organised in angular connection so far as topographically possible.

In second century scheme of the acropolis but that also the bella vista, the landscape background, was viewed as an essential element of the aesthetic effect. Short axes-converging because of topographical reasons-are recognisable, and quite obviously the spectator should comprehend large groups of buildings and the squares in between as a whole. While in the lower city of Pergamum the single smaller agoras were not yet quite regular, the groups of squares on the acropolis appear now as definite spatial units, individually as well as in combination.

3.1.1.2. Roman City

Roman Cities effected the Greek culture. Hellenistic period brought new urban understanding to the planning and architecture. Romans grafted Hellenic forms upon the irregular patterns of their villages, used these forms for their new towns.
A Roman colonial town was a system of gridiron streets enclosed by a wall. The wall was built first, the buildings came later. Traditionally, they used a pillow in the ceremony to lay out the town walls, perhaps symbolically recalling the origin of the rectilinear town form. The Romans, with their emphasis on street layout, introduced the idea of major and minor streets-two main streets at right angles. They were called a "cordo" and a "decumanus" and divided the town into four quarters. This system of town design was a simple but well-organised framework for a town's many buildings. The places of public assembly were the theatre, the arena, and the market. However, they were not placed axially on the streets, as one might expect from such a highly organised society. The public buildings, too, were treated as elements subordinate to the street layout rather than as monumental features. The development of fully monumental design concept came in ancient Rome in its cluttered central area. (Smith, 1954)

Romans were skilled engineers and aggressive city builders but they had not the philosophical background of Greeks. Search for aesthetic was the missing part of their work. Greek forms were used but reduced to mechanical formulae, eliminating the creative spirit in them (Gallion, Eisner, 1986). They reached to technical excellence in city building.

The Romans used a set of proportions that would harmoniously relate the various parts of a building to each other but not necessarily to human measure. The size of a column determined by rules of proportion and the sizes of Greek architecture were based primarily on human measurements once established. These standards determined the size of a whole building. On the other hand, The Romans used a set of proportions that would harmoniously relate the various parts of a building to each other but not necessarily to human measure. The size of a column determined, by rules of proportion, the sizes of all other elements.

The basic dimension in such a system of proportions is called a "module." The Greek's urban module was a house but the Roman urban module was more abstract. They chose to think of the basic pattern of a town, not as houses made to human scale, but as overall street patterns made for military government. (Smith, 1954)

What agora meant for a Greek is the same feeling that forum gave to the Roman citizen. Ordinary inhabitants found their self reflection in the forum which had a deep meaning other than being only a space. In Forum Romanum (Fig.3.1.3) of Republic, identity of individual is merged with "Rome". Citizens felt themselves as part of the activity that took place in it. The proportions and the human scale engendered a
true public space for Romans, in which ordinary people had their share in the daily activities of business, religious and political life. It was the original centre of business and political life in early Republic. (In Forum Romanum of Republic, identity of individual is merged with "Rome").

In Pompeii Forum old temples, adjacent markets, basilicas and other buildings, were separated from the free area through two-storied porticoes which surrounded the forum on the three sides and concealed the individual structures. The temple of Jupiter dominated the whole space, which was closed against all vehicular traffic. The colonnades also covered the few entrances to the streets. The whole organisation became a completely closed square, axial, dominated by the temple, and kept together by porticoes—a perfect solution of a Roman forum. (Zucker, 1959)

The buildings of the Republican forum (Fig.3.1.4) (509 B.C.-27 BC) represent the development of steadily increasing political power. Gradually, Roman architects realised that the solution to designing grand arrays of buildings lay not in the superlatives of massing or detailing, but in grouping the buildings to form urban spaces. Perhaps they saw the design utility of enclosed architectural or urban space as they sat...
in their hippodromes, their theatres, or in the Colosseum. Or perhaps they recognised this concept in the many ancient cities of the Mediterranean world which they had conquered, particularly those in Greece and Egypt. At any rate, They recognised the utility of the concept of enclosed space, architectural and urban, and they perfected its use. (Smith, 1954)

Figure 3.1.4. The Republican Forum in Rome. The buildings were erected one by one along an irregular axis. (Source: Spreiregen, 1965)

The design concept of the Imperial Forum was as different from that of the Republican Forum (Fig.3.1.5) as Athens' Acropolis is from its agora. The imperial Forum (Fig.3.1.6) was composed of square, rectilinear, and semicircular squares, each formed by a colonnade and acting as a setting for a key focal building: a temple or basilica at the end of the space. Such a configuration had many advantages. In particular, it created distinct places within a still larger place. Further, individual squares could readily be connected by a colonnade, which acted as both transition and link. (Smith, 1954)
The Roman ideal of the Imperial centuries, however, was the axial connection, and its most grandiose realisation was the Imperial Fora where the spatial and special unity of each square is absolutely preserved, but at the same time each individual forum becomes a link of a axial sequence. (Zucker, 1959)
The first of the Roman Imperial Fora was the Forum Caesaris. Its construction was originally caused by the lack of space on the Forum Romanum proper. The Forum Caesaries with its rigid axial symmetry become the starting point for the whole development, since the Imperial Fora dovetailed into each other. The second Imperial Forum was built by Augustus at an angle of 90 degree to the Forum Caesaries and likewise was surrounded by colonnades. The position of this temple and of the temple of Venus Genetrix on the Forum Caesaris in relation to the open void of their respective squares is noteworthy. However, the squares do not yet represent “dominated” squares in the sense that some parvises in the Middle Ages do. (Zucker, 1959)

Parallel to the Forum Augusti lies the Forum Nervae was the third Imperial Forum. Forum Nervae, defines its function as a connecting link between the Forum Augusti and the Templum Pacis or Forum Vespasiani, preserving an earlier thoroughfare. (Zucker, 1959)

The Templum Pacis, built simultaneously with the Forum Transitorium, appears again as a genuine square, surrounded by colonnades. The last of the five Imperial Fora, the Forum Traiane represents the definite triumph of the Roman spatial concept based on absolute axially and symmetry. It consists of an enormous free area with an equestrian statue of the emperor in its centre, surrounded by colonnades.

Romans and they alone contributed to the development of architecture and city planning: the feeling for the shape of the void space, for its artistic meaning and for its modification by specific proportions and by a super human scale. The Greeks on their part were unique in their feeling for tactile organic forms in their sense for the proportions of volume and for the relative scale in reference to the human figure. And this basic distinction between Greece and Rome manifests itself in the difference between Greek post-Hippodamic and Roman city planning, evident especially where the greatest possibility of spatial expression is given in the centre of the town, in the forum or in the sequence of fora. (Zucker, 1959)

3.1.2. Square Concept in Medieval City

The Medieval Age includes the period which is from the beginning of Romanesque to the end of Gothic term (9th – 15th century). After the decline of Rome’s power, many settlements which became the nuclei of new society in Europe occurred.
The early Medieval city was a closed and relatively self-contained social world. Most urban residents used to spend their lives within the walls of their city. (Fig.3.1.7). In medieval settlements, walls and churches became their representative symbols. These walls were representing the secular power of the feudal lords the churches and the religious power of the bishops (Geruwson,1977). These settlements were built not only to protect boundary but also to control the regional population.

“Power was shared between feudal lords and religious leaders. The economy was organised according to guilds with each craftsman, artisan and merchant belonging to a particular guile. It was a world in which each person had a clearly defined place. One's position in guild, family, church and feudal administration determined one's status and responsibilities. There was a high degree of solidarity and loyalty among city residents as their lives were closely interrelated. They were always prepared to rush to walls in the collective defence of their city.”(Geruson,1977,p.12)

The medieval concept of town planning was based on picturesque combinations of individual buildings. An overall spatial relationship of the structures was not yet achieved. The beauty of medieval squares was not due to “conscious planning”, but due to “the growth through centuries, each epoch adding its specific architectural elements”. The idea of conscious planning was not known by the medieval man except in the thirteenth century foundations in France and eastern Germany (Zucker, 1959).

The lack of overall planning was evident even in the late Middle Ages and no sudden changes took place, but as the town became the symbol of any political or social idea, gradual transitions led the way for the spatial concepts of the new area.

There were two important factors at the forming of the cities. One of them was the need of defence, the other one was the proximity of the transportation network of trade. In this time, cities could be used defensively so that built mostly timber-towers, on rocky outcrops or natural hills wherever they could.

The earlier medieval towns are characterised not only by narrowness of their streets, but also by the irregularity of the streets (Zucker,1959). There were several reasons why so many medieval cities were irregular. The important reason was the nature of sites on which settled for defensive purposes. According to Mumford (1958,p.53) the medieval builders had no a priori love for symmetry as such. Where it was simpler to follow nature’s contours’ they did so rather than grading them down or
evening them up. Nor were regular streets needed to accommodate wheeled vehicles. Despite appearances the irregular medieval city was by no means unplanned.

Figure 3.1.7. Defence limits of city in Feudal time

According to Zucker (1959), it is possible to distinguish clearly definable types of medieval squares in the various European countries. These are the principal types, except for specific solutions in Italy and in the north;
1-The street as a market square: Public and commercial life are not separated. The craftsman lived and worked at home and the burghers had their own gardens for food production with only a modest merchandising (Spreiregen, 1986). So since the country around was relatively thinly populated, not much space was needed for the market. (Fig. 3.1.8)

The idea of the market streets was so generally accepted that even in newly founded cities of the twelfth and thirteenth centuries very broad streets were considered sufficient for market needs and no special market square was provided.

2-The Market Square as a lateral expansion: The trade boom caused the development of cities. And the increasing of vehicle and pedestrian circulation caused the using of main streets to be market square. Buildings which were on the each side of the main streets were destroyed. And on the expanding parts of the street an administration buildings earned more important for this development. These buildings increased the influence of space and played important role at the farming of square.

"The Street Market is common to all European countries: the best examples are perhaps those in Germany (Fig. 3.1.9), Austria and Switzerland. Market places possibly developed here as lateral extensions of the main street, in order to free their activities
from pedestrian and vehicle movement through the town.” (Morris, 1992) Sometimes a larger town developed more than one such expansion from thoroughfares.

3-The Square at the Town Gate: “Squares before a gate inside the town walls were mostly of triangular shape from these squares two or three streets radiated. The mass of the protective tower above or beside the gate dominated the free area, which sometimes functioned as a market for an incoming rural products, sometimes only as a traffic hub. Although in function still a market square, such a small area, whence the incoming traffic was channelled into various diverging streets, never produced a real spatial impression but merely appealed through the picturesque view it provided toward the gate and tower”. (Zucker, 1959)

4- The square as the centre of the town: The centrally located square as the hub of a street system in logical in planned communities. The grid iron scheme of these towns allowed for clearly defined areas for the market square and –in some instances– for a second square for the church. These squares were regular void areas within the grid pattern. The bordering houses were mostly tied together by arcades, eaves, and roofs of the same height, which in their totality created the typical closed square.

In eastern German the market place became the dominating element and the centre of the whole grid, as in Neubrandenburg (Fig. 3.1.10). In these planned ,town hall and parish church were usually located either on the same side of the square or on opposite sides.
5-Parvis: The medieval parvis, the square before the church building, is structurally different from the medieval market square in so far as the parvis is dominated exclusively by building, being almost part of the structure, since all individual architectural elements of the square refer to the dominant edifice. Although generally more regular Ages seldom showed a geometrically pure from such as developed later in Renaissance and baroque times.

Quite naturally the parvis was mostly closed-on three sides by houses, on the fourth side by the dominating west facade of the church.

Figure. 3.1.10. Neubrandenburg Plan. (Source: Zucker, 1959, p. 79)
In England a definite form of parvis did not develop; rather the largest void was often located parallel to the long axis of the cathedral mostly without distinct spatial boundaries.

6. Grouped Squares: The separation of the market square from the church square, be it by a parvis or just a surrounding free area, after led to the development of grouped squares, especially characteristic of many German towns.

Church and framing houses together, seen from the humdrum of the market square, impress the spectator as one domineering staggered mass, as, for instance, in two Hanseatic towns in northern Germany Stralsund and Rastock (Fig.3.1.11)

![Figure 3.1.11. Rostock Market Square and Cathedral Square Plan. (Source: Zucker, 1959, p. 82)](image)

In France, medieval grouped squares are infrequent except for those originating from the interpolation of free areas into the gridiron scheme of bastides.

The development of the trade caused a new class in Medieval Age. This rich class wanted to be at main squares. Thus the squares were surrounded by churches,
places and surfaces. The small squares surrounded main square which was the city centre.

In this era, feudality and aristocratic class claimed assignment which arranged the relationship between people. Elegance, pleasure and culture were present in and around the palace. So citizen wanted to settle close the palace. When the city grew and society settled, this type of field gained importance and identity of square.

People need square in which they can get together and can discuss political and daily problems, also commercial activities can take place in these squares.

In the Middle Ages, as in other times, the feeling for space in the south of Europe was different from that in the north. Therefore Italian medieval squares differ from these found elsewhere, and we encounter entirely individual spatial shapes.

In this term, Piazza Del Campo, Siena is the real medieval squares it is the excellent example of the Latin space concept in Italy. (Fig.3.1.12)

![Diagram of Piazza Del Campo, Siena](source: Dekorasyon, 1995/3,p.86)
"As Dante mentions in Purgatorio ‘...... he in greatest splendour lived-upon the Compo of Siena’. It is the breathing space in a town tightly packed between ancient and as one wonders though its irregular approaches, a veritable warren of mysterious medievalism, one bursts into the square with an ‘explosion of space’. Here with this surprise approach and a mighty contrast and counterpoint of spatial composition will be found some of the most pertinent and undying lessons of Italian square design"(Simith,1954,p.50)

"Siena is composed of several political sections each occupying prominent topography, each with its local small square, but together focusing on one of the finest piazza, on a central dominating cathedral.(Fig.3.1.13) The city of Siena has a pattern of streets which follow the most logical topographical liners, converging on the central Piazza del Compo a large outdoor living room for the whole town.”(Spreiregen,1965,p.10)

Figure 3.1.13 Dominating cathedral of Campo, Siena (Source: Dekorasyon, 1995/3, p.86)

In this site, the streets are all quite narrow and the passage from them into an open square is dramatic (Fig.3.1.14) The entrance views of a square were determinants in the placing of churches or towers and obviously the detailing of an important public
buildings was strongly influenced by how it was seen from various places in the square. Lined with slopes, they run from the town gates to the main square and consequently bear the greatest volume of traffic. (Fig. 3.1.15) The entrance views of the square were determinants in the placing of towers.

Figure 3.1.14. A view of chatedral from the narrow street (Source: Smith, 1954, p. 51)
The Compo is not only uniquely Italian but probably the first Medieval square in the country. The Compo is the very core of the city and all life revolves about it.

During the Middle Ages, specific additive architectural elements—fountains, small monuments, arcades, stairs etc.—which enhance the effect the square are of greater importance in the north for the total impression of the square than in the south.

Fountains play only a minor part on northern medieval squares in contrast to their role in Italy during the Renaissance and baroque centuries. Steps and staircases serve primarily as access to individual buildings, especially to churches, or they are intended to overcome natural topographic conditions of the area. At the same time, however, they may become decisive for the final appearance of a square. By dramatising the otherwise evenly horizontal floor of the square, they intensify its three-dimensional qualities and add to the movement in depth. Thus they become impressive architectural elements of its whole organisation.
Their function originally was, of course, to protect against the sun in the south and against the rain in the north. Besides, they offered an opportunity for displaying and selling all kinds of wares and goods.

Thus, in Medieval Age, various squares were formed. In occurrence of towns defence became the most important factors. So settlements were established on top of the hill. They settled there suitably to the topographic features. So the cities had a pattern of streets which follow the most logical topographical lines. And Medieval cities have an interesting quality surprising, irregular streets and squares. Besides these, spatial enclosure in an important factor in Medieval squares.

In Medieval cities an urban texture which were importance of outdoor space rather than being dominant elements of buildings was formed. And human scale was very important in this time. Although urban space (street and squares) were at the human scale, church buildings and administration buildings were high and large. So the importance were gave to church was felt both in cities texture and social life in Medieval Age. (Fig. 3.1.16) They symbolised the religious power.

Thus, church buildings were dominant elements in square and they emphasised the square and they increased the importance of square. (Fig. 3.1.17) In the square concept of medieval times, the area about cathedral was religious and largely to being merely a background to the church itself.

There were many reasons for the change in Medieval cities. First, according to Geruson, three aspects of innovation.

Cities and towns grew in Middle age. But there were limits to the growth of urban area. These physical limits are the city walls. They were not extended. The other limits were imposed by meager water supplies, local food production and guild restrictions that controlled the entry of outsiders. The surplus populations built new communities nearby, which in time become self-sufficient and independent units. (Geruson, 1977)

Another aspect of innovation was cultural. The Medieval urban communities were "works of art", symbolising in their very layouts their physical designs, the ideals of civilised life. At first the cities primarily offered the security of physical protection. During this period urban culture was closely intertwined with Christian culture, since the Christian church was the dominant and most universal institution in Europe for many centuries. The ideal form of a city was circular like the celestial city. The first and most important church was built at the symbolic and actual centre of the city since the
cities were a visible representation of the shared religious culture. (Geruson, 1977, p.14-15)

Figure 3.1.16 Dominating Character of the church in Piazza del Duomo (Smith, 1954, p.60)
In Medieval squares, the architectural features like fountain, sculptures, and stairs had not more effect to rich the influence of square. Arcades meant for the medieval square what porticoes meant for the Hellenistic agora and fora to the Imperial era.

A third aspect of urban innovation was economic. Cities aided the economic revitalisation of first regions and then whole countries. There are differing interpretations of the origins of capitalism in the West. However, they converge in emphasising the role of the cities that developed at the end of the feudal period. These early cities helped create modern industrial society both through their struggles for independence from existing feudal authorities and thorough their serving as the focal point for the production and distribution of new goods and services. The much larger economic function was to provide a market for the surrounding rural region, a place of exchange for local agricultural and handicraft products. From the institution of the local market, which linked city to countryside, flowed the new ideas, goods, and technical inventions that revitalised rural areas. In conjunction with the spread of urban culture, these innovations helped promote the growth and urbanisation of the countryside. Thus, the achievements and innovations of the medieval city helped spell its end and laid the foundation for new forms of urban settlement. (Geruson, 1977, p. 15-16)
3.1.3. Square Concept in Neo-classical Period

3.1.3.1. Renaissance City

The Renaissance period in urban history is taken as extending from its commencement in Italy, at the beginning of the fifteenth century, until the end of the eighteenth century. According to Morris (1992, p.157) "the term Renaissance means, literally, rebirth: a revival of interest in the classical art forms of ancient Rome and Greece, and their use as the inspiration of European painting, sculpture, architecture and urbanism".

In Medieval Age, the economic structure of society because of the increasing of marked and population in European cities. Medieval society was advancing in a direction which would bring a new age. Its growing capabilities led to the growth of powerful political states. In these states, certain towns enjoyed advantages because of strategic position.

The trend to "Central Authorities" was preparing the end of feudalism in Europe. The rich became the care of ideology like a improvement, profit and freedom. Coming of secular caused to the decreasing of power of the church and aristocracy in 12th century.

In this period, architecture reached the point which the big buildings showed the human mind and talents, the western philosophy gave deeply importance to the its connection with eastern philosophy. In this term, mind became the most important concept of the philosophy under the affect of the philosophy under the affect of Latin and Greece classical.

Gothic buildings were in very important transition point between early medieval era which was under domination of church and Renaissance. In 12th and 13th century, Europe became the open society to trade and travelling with unimportant political difficulties. The easy transition of Mason’s from the place to other was supported to the expansion of architectural option and specialities.

In 14th century, developing church and noble class took the under control of Europe politically and economically. The major amount of big castles were supported with the new cities claimed the pastoral life style. And in this period the trend to humanism increased. Meanwhile, because of the development of capitalism, Medieval
time ended in Europe. But the artist still gave important to the medieval symbolism and comparative behaviours became effective on design.

In 15th-16th centuries, architect began to search the new meanings. Because buildings and culture accumulations occurred because of feudal regularity increased city populations. These changing and development accumulations caused agglomeration in the cities.

According to Zucker (1959) "The main difference between the development of the town in Medieval and Renaissance times is that in the Renaissance one can truly speak of "city planning". In Renaissance towns became more important with regard to the individual political units of the whole country. Theoretical thinking and aesthetic consideration begin influencing the creation of individual political parts and of the town a whole. In this new age, different architectural forms and the change of the proportions are importance. Now, structural clarity replace the charms of the picturesque combinations. And Architectural design, aesthetic theory and principles of city planning are directed by identical ideas.

If European Renaissance cities and those of later periods, could have been more feasible and it is probable that growth would have been much more horizontal in character. With the military developments of the fourteenth and fifteenth centuries this was not possible. The factor which most upset the balance between defenders and attackers was the perfection of gunpowder and the cannon. Such defensive systems often drained resources but essentially they had to follow only one dimension the vertical; they could be extended to take in new district, without compromising the overall strength of the system (Morris, 1992, p.165-166).

After the clear development level, the scientific development improved the production of buildings in cities. Thus the growth of cities couldn't be prevented. The buildings and streets of old cities were not appropriate to the princes, bureaucrats, militaries of new power. Soldier couldn't make a demonstration on the expand and curled streets. A large square or large and flat street were necessary for the regular and effective parade.

Thus in this term architect and city planners began to concern more magnificent buildings and abstract concept connected with architectural and city planning. Church buildings and circle which were the more excellent shape of symbol were importance in this time (Yenal, E., 1968).
Renaissance which aroused the big reaction in 15th and 16th century agreed with a world opinion that is sovereign rationalism. The rationalist philosophy remarks that the man must direct his life with mind not with religious belief. Life style in Renaissance was containing rationalism and secularist approaches.

The integrity to the structural and functional structure and the spatial relations to the architecture were seemed more conscious approaches in these times. These approaches were planning process.

A central square and streets separating from forms general plan in centre could check the whole streets which linked with centre in architecture and urban design. Leon Battista Alberti (his book De Architectural) is regarded as the foremost early theoretician. As an urban designer, Alberti is chiefly remembered for his "ideal cities" star shaped plans with streets radiating from a central point, usually proposed as the location for a church, palace, or possibly a castle.

Many architects tired their hand at the design of ideal star-shaped cities. They found that the polygon was an advantageous shape for fortifications and that converging streets were a useful means of focusing on an important central building.

The ideal city plan of another theoretician Filorate was octagon which had central square and radial streets. (Fig.3.1.18) However Pallodio examined squares from sociological aspects more than aesthetic aspects and the indicated the functional importance of square. In addition, Pallodio is the first person who carried two dimensional connection of facade to three dimensional structural complex (Zucker, 1959).

The important city suggestion belongs to Italian author Giavora, in this city plan, there quadrangle square in the centre, eight radial streets with other horizontal and vertical streets. This type of squares were applied in Granmichele in 11. Century.(Zucker, 1959).

The relatively few now the foundations of the fifteenth to eighteenth centuries were therefore primarily either of a strategic military origin, Palma Nova in Italy. (Fig. 3:1.19) The theoretic ideas of Alberti and Filorete were applied to Palma Nova by ncenzo Scamozzi in 1593 with only small changes. The central square, radial six street separating from the city plan. In the ideal city plan in which the grid system is dominant, three are central square and four small square around it.

Palma Nova not defines plan composed of aesthetic graphic, he defines three dimensional design level. The houses, which surround the square are the balance former
elements in open area. Central square forms the focus point of radial organisation like San Pietro Square.

Figure 3.1.18. Antonio Filorate, The ideal city designed. (Source: Morris, 1992, p. 170)

Figure 3.1.19 Palma, Nova (1593) The plan for which is generally attributed to Scamozzi (Source: Morris, 1992, p. 172)
Albrecht Dürer in Germany designed a rectangular city, with zones for each activity. (Fig. 3.1.20)

In spite of works of theoreticians of Renaissance era were occurred, by the perceptions in the space to be inspired by people behaviours and feelings. (Zucker, 1959). In Renaissance era, people improved the conscious of square at same time they showed that influence of manmade could compete with natural landscape.

Renaissance urbanists had three main design components at their disposal: first, the primary straight street; second, gridiron-based districts, third, enclosed squares. (Morris, 1992)

Renaissance spaces frequently served aesthetic and aggrandisement purposes; either as a forecourt in front of an important building. Spatial enclosure was effected with three main types of buildings: first, civic or religious architecture; second, residential buildings, usually in terrace form; third, market and related commercial buildings. Renaissance urbanists also defined space by the use of architectural landscape elements, colonnades, screens and terraces and by various forms of tree and shrub planting. These ways of enclosing space were often used in combination and in a
number of instances existing buildings and natural features were incorporated into the design (Morris, 1992).

An important enclosed spaces were either completely closed the wheeled traffic, or arranged so that pedestrians were not unduly affected there wheeled traffic was restricted to one side only. The majority of these spaces served as forecourts or public assembly areas in front of important civic, commercial and religious functions. Venice, as a unique water-orientated city with only pedestrian land traffic, contains several spaces of great beauty.

Napoleon called it “The most beautiful drawing room in Europe“. The Piazza San Marco is highly varied asymmetrical and irregular. This is hardly surprising for the Piazza grew to its present form by a process of growth and change over almost a thousand years (1880-1810). Piazza San Marco is really two squares arranged in an L-shape (Fig. 3.1.21); and stretching a way from of the transformation of the Piazzetta, Sansovino built the huge Libreria di S.Marco, one of the most impressive of all Renaissance structures. (Fig. 3.1.22, 23 ) San Marco in Venice is next to the Acropolis, the first example of town planning and architecture to be found in the world.

Figure 3.1.21. Bird’s eye view from San Marco (Source: Smith, 1954, p.71)
In its brilliant synthesis of Classical forms and details with the architectural language of the High Renaissance, and with his own genius for stressing the sculptural aspects of architecture the Libreria is Sansovino’s masterpiece. (Fig. 3.1.24)

The Renaissance architects in looking to the classical past, found design ideas, which answered many of their own design problems. The classical orders and ornaments, which answered many of their own design problems. The classical orders and ornaments, with their finely proportioned details, offered a broad palette of design possibilities. Of course these details of architecture had never entirely vanished from the art of medieval builders, but the Renaissance architects used them to much greater advantage. Indeed, they took classic details as the Romans had advanced the architectural ideas of the Greeks fifteen hundred years before.

Figure 3.1.22. The huge piazza in front of the Byzantinizing Romanesque S.Marco (Source: Smith, 1954, p.)
Figure 3.1.23. Stretching a way from of the transformation of the Piazzetta
(Source: Smith, 1954, p. 79)

Figure 3.1.24. Night view from the San Marco. (Source: Peyzaj, 1998/4, p. 43)
Throughout the Renaissance period several dominant aesthetic considerations determined general attitudes to urbanisation in all countries. First, there was a preoccupation with symmetry, the organisation of parts of a planning programme to make a balanced composition about one or more axial lines (Zucker, 1959). Second great importance was attached to the closing of vistas by the careful placing of monumental buildings were integrated into a single, coherent, architectural ensemble, preferably through repetition of a basic elevation design. Fourth, perspective theory was one of the constituent facts in the history of art, the unchallenged common to which very artistic representation had to conform.

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Thus, during the Renaissance period of urban history the aesthetic determination of spatial design and the principles of city planning was more closely integrated than the Medieval Age. In the Renaissance era, the spatial harmony was important. To stress the balance, the dominating role of structural elements are reduced.

On the facades surrounding the square, arcade were used often. The arcade, pattern which were identical for all residence, had different characteristic features. The architectural elements like sculpture, fountains, stairs were used for the closed,
dominating and nucleus organisation. In the middle Ages, the elements were used independently without connection with square complex.

The characteristic informality of Medieval space, even when developed from a regular plan, resulted in the picturesque effect of Gothic architecture’s asymmetrical massing, punctuated skylines and frequently intricate detailing. Renaissance architecture on the other hand rejected asymmetrical informality for a classical sense of the balance and regularity emphasis was placed on the horizontal instead of the vertical. (Zucker, 1959)

3.1.3.2. Baroque City

Seventeenth to nineteenth century is a critical period. It brought fundamental transformations. During the period of seventeenth to nineteenth centuries, Paul Zucker had taken two approaches an urban form in Europe. These are the baroque concept introduced in Italy and the French classicistic tradition.

The 17th and 18th Centuries in Italy

At the beginning in Italian cities, the baroque space concept had been developed. Arrested movement was experienced in the square old Italian cities. The movement was directed by the improved design techniques.

Movement is one direction was also the principal motif of the Piazza del Popolo in Rome as it existed in its original form. (Fig. 3.1.25,26) The Compidoglio and the Piazza del Popolo show the beginning of the baroque space concept with emphasis on directed movement. However in both examples this directed movement differs still from dynamic spatial acceleration the sensation of suspense and surprise which was to become the ultimate aim of architectural organisation, based on the concept of arrested movement (Zucker, 1959)
The main axis of the square formed by the gate, the obelisk, the twin churches and the three radial avenues they delimit. (Fig. 3.1.27, 28)
Figure 3.1.27. A view of obelisk which is centre of the square. (Source: Smith, 1954, p. 93)

Figure 3.1.28. A view of twin church from the Piazza del Popolo. (Source: Smith, 1954, p. 93)
The Campidoglio is best understood by taking an imaginary walk toward it. At a distance, the group forms an enclosed space centered on an equestrian statue. (Fig. 3.1.29) A long, ramped stair leads up to the plaza on axis with the three main buildings. (Fig. 3.1.30, 31)

Figure 3.1.29. The view from the main entrance of Campidoglio (Source: Smith, 1954, p. 81)

Figure 3.1.30. Three main buildings surrounded Campidoglio, Rome (Source: Smith, 1954, p. 46)
The entrance ramps are not parallel but actually widen toward the top. This divergence creates a perspective effect and makes the stair appear shorter. (Fig. 3.1.32)

“Campidoglio definitely and entirely represent a civic institutions, that this square, although topographically isolated like a Greek acropolis or some medieval cathedral with its local immunity area, is not all a "sacred area" and has no religious connotations whatsoever. 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 desire for static balance encountered in earlier Renaissance spatial creations no longer exist. For the first time the baroque concept of dynamic motion in space is introduced, although still interwoven with Renaissance ideas, such as the repetition of identical motifs. But there it is—and the Piazza di Campidoglio represents the exact transition from the one concept to the other”. (Zucker, 1992, p. 147, 148)

Roman squares express best what seemed the ideal relationship between space and movement to the artists of the late baroque: St. Peter's Square, the Piazza di Spagna, the Piazza Navona.
St. Peter’s Square like the Piazza del Popolo is a dominated square. (Fig. 3.1.33) Bernini’s choice of the oval was paramount importance. The circle was the preferred geometric shape for the and high Renaissance because in its ideal form the refer to correspond to a universal order.

In figure 3.1.34. Geometrical shape of St. Peter’s Square. Just as the longitudinal church with its directed axial focus had won out over the imperturbable centralised church of the ellipse with its dominant axis inherent motion suitably supplanted the non-axial equilibrium of circular forms. (Fig. 3.1.35) Now here is this more dramatically realised that at Bernini’s piazza for St. Peter’s (Smith, 1954, p. 84-88)
Figure 3.1.33. Dominating character of the church in San Pietro Square.
Figure 3.1.34. Geometrical shape of St. Peter’s Shape.

Figure 3.1.35. The views from Piazza San Pietro to main axis (Source: Smith, 1954, p. 87)
Roman baroque from Michelangelo to Specchi and national variations showed the desire to mold space a free-following continuum with increasing emphasis on visual arrests-fermates. This continuum, seemingly infinite is to be perceived through a sequence of different vistas (from the Campidoglia to the Piazza di Spagna). This baroque interpretation of spatial unity is stronger and suggestive than the quiet, balanced unity and static entity typical of the Renaissance. The continuously shifting interplay of light and shadow contributes further to the "hide and seek" of spatial impressions. (Zucker)

The Piazza di Spagna with its 137 steps represents the climax of stage effects in Roman city planning on a large scale. (Fig. 3.1.36)
Here, nature lent a helpful hand to the spatial vision of the planner, who had to cope originally with a relatively narrow area without definite confines, an area which since the 17th century has been the gathering place for foreigners in Rome. The triangular area of the piazza, into which five streets run, serves as the starting point for the stairs which lead to the Church of Santa Trinita dei Monti.

The unique spatial and visual experience is the integration of staircase and piazza. (Fig.3.1.37) Actually the staircase, the link between two topographically different levels, becomes the square. The Scala di Spagna is the only example in history of city planning where a staircase does not merely lead to a square in front of a monumental structure, but where the stairs themselves become the visual and spatial centre. (Zucker,1959,p. 156-157)

Historically no exact demarcation line can be drawn between baroque and classicism in Italy. Classicistic solutions become more numerous during the 18th century when the trend toward thinking in rational and "academic" concepts increased. The extent and intensity of Italian classicism cannot, however, be compared with the exclusive rule of classicism in France, where its formative force was equally strong in city planning and architecture. (Zucker,1959,p. 159)

In the Piazza San Carlo in Turin contradictory stylistic tendencies -baroque and classicistic- fight each other. Its plan was originally conceived by Vittozzi. Vittozzi had borrowed the baroque idea of twin churches from the Piazza del Popolo in Rome. Arcaded houses surround the square on three sides. The force of the whole town plan of Turin with its ancient Roman castrum scheme was so strong that any later square had to be integrated into it. Thus Vittozzi was compelled to employ a rectangular ground plan, the shape of which contradicted perse the baroque accentuation. In other words, the churches, in spite of their similarity to Santa Maria del Popolo, in no way define the spatial character of the square as they do in Rome. (Zucker,1959,p. 159,160)

The largest classicistic layout in Italy, Caserta, Between Rome and Naples, mirrors quite obviously the basic idea of Versailles -park, castle, and town conceived as one unit. The ambition to surpass the dimensions of Versailles is evident; as originally planned it would have become the largest castle of Europe. The dimensions of Vanvitelli's original design were later reduced, yet the main facade of the castle still stretches over a width of about 280 yards. A main axis leads from the castle through the tremendous park to a cascade in the far distance. A large oval square extends in front of the palace, tied to the facade by two lower wings in imitation of Bernini's closed
colonnades before St. Peter’s in Rome. This square was destined to become the focal point for a new town besides the already existing town of Caserta, in this respect again analogous to Versailles. (Zucker, 1959, p. 160, 161)

Probably the most perfect classicistic square on Italian soil is the Piazza Vittorio Veneto in Turin. The Via di Po is one of the main traffic arteries of the town. This long straight axis starting at the Piazza Castello is one of the very few streets which cut diagonally into the ancient gridiron scheme of Turin. The motif of the semicircle or niche appears again in the entrance to the Via di Po. The almost identical houses which surround the Piazza Vittorio Veneto are arcaded, as are those over the incoming streets. The same arcades continue through the Via di Po. The floor of the square slopes strongly toward the bridge, the lowest level of the axis. Beyond the river the axis climbs again toward the elevated, central-domed church. (Zucker, 1959, p. 164)

The classicistic simplicity of the sequence (square, street, bridge, church) and the uniformity of the adjacent houses represent the strongest possible contrast to similar sequences planned during the baroque period. The idea of continuous motion still exists, but the moment of surprise and dramatic movement has completely vanished. There are no props or features such as fountains or statues to accentuate specific parts of the straight axis and to arrest the movement. The turbulence of a forceful waterfall has given way to the even flow of a calm, well-channeled river.

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**17^th and 19^th Centuries in France**

“In France, Renaissance architecture developed relatively late through contact with Italian architects... Hence it was not necessary for the French baroque to overcome traditional, deeply ensconced concepts and firmly established artistic ideas as it was in Italy. It was the mitigated and more reasoned north Italian form of expression which primarily affected French architecture, and not the Berninesque Roman. Thus it was
Palladio's, Vignola's, and della Porta's influence which directly permeated the visual concepts of the French architects of the first half of the 17th century.” (Zucker, 1959, p. 165)

The French approach to Italian architecture of this period is reflected best in Daviler's work which mirrored the prevailing ideas of this period in France.

“At the beginning of the 17th century, two closed squares, the Place d’Alliance in Nancy and the Place Ducale in Charleville, continued the Renaissance tradition. However, they lost the intimacy of the smaller, closed Renaissance squares and anticipated in dimensions and proportion the spirit of the baroque era in France, thus becoming models for the later places royales.” (Zucker, 1959, p. 166)

“In their spatial and architectural shape the place royales of the 17th and 18th centuries in France crystallise the predominant ideas and underlying philosophies, the political and sociological systems, and the cultural attitude of their time as immediately and as unambiguously as do the great squares of these centuries in Rome. In Rome, the triumph of the resurgent papal power had created grandiose dramatisations and architectural spectacles in richest orchestration for the purposes of emotional stimulation and sheer sensuous delight. In France, directed by “reason” and classical tradition, the dominant power of an absolute monarchy shaped forms of utmost regularity as background for regal pageantries and as documentation of the power of the state and its ruling classes.”

The Place des Vosges, (Fig. 3.1.38) at first glance this most beautiful Parisian square seems to continue the Renaissance tradition completely. The Place des Vosges is located away from the traffic, a situation typical for the French squares of seventeenth century. Entrance and exit for the street leading into the square are carefully concealed by special pavilions, which are incorporated into the continuous row of houses.

Now, the Place des Vosges had become a residential square. The eighteenth century English concept of greenery in combination with squares was anticipated with this change. But this concept is definitely different from the nineteenth century pseudoromantic mania for “decorating” all public squares with miniature parks. The difference lies in the fact that here, at the Place des Vosges, at least the planted area is level, an even surface, and still part of the spatial cube. The more or less irregular planting of later times annihilates any possibility of a three dimensional impression. Today's arrangements of the square with flower beds and grouped trees has somewhat confused the original basic idea.
The spatial structure of Mansart's first great square, the Place Victories, executed between 1684 and 1687 under the supervision of Predot, does not yet represent a clear-cut solution. Basically it is a round square with a monument honouring Louis XIV in the centre and six streets running into it (Fig. 3.1.39). Only one of them continues in a straight line at the opposite side of the square. In spite of its identical facades, the Place des Victories does not achieve the impression of a closed square. Its openings toward the surrounding streets are too numerous. It was in all likelihood just this connection between the square and its neighbourhood that made the Place des Victories so much appreciated, especially by the theoreticians of the second part of the eighteenth century.

In contrast to the Place des Victories, the Place Vendome clearly represents the epitome of the closed square and, moreover, generally the most conscious space creation of French classicistic baroque.

The square proper is a rectangle with its corners flattened out at an angle of 45 degree, which gives the square the shape of an octagon, and is surrounded by houses of identical three-storied height with dormer windows and identical eaves and roofs. (Fig. 3.1.40)

It is the completely closed form of the square which was later condemned by theoreticians of the eighteenth century. they considered only an open square, especially the star square integrated into the network of streets, as a representative and artistic
Figure 3.1.39. Place Des Victoires, Paris. (Source: Dekorasyon,1995/3, p. 91)

Figure 3.1.40. Place de Vendome, Paris. (Source: Dekorasyon,1995/3, p. 91)
solution. But such a square would never convey the definite spatial experience of the Place Vendome and the earlier Place des Vosges. The latter in its closed form was still accepted in the eighteenth century as artistically satisfactory, but only because it was a residential square. However, the lack of monumental vistas in distance and of integration with its surroundings was then regarded as an artistic misconception for a square destined to represent the grandeur of a whole city. This difference in aesthetic approach is characteristic for the stylistic change from the seventeenth to the eighteenth century in France.

Even the eighteenth century squares from which streets radiated preserved some features of the seventeenth century square, namely, the irrelevance of axial direction the square and the erection of a central monument. In other words, the space of the square still remained autonomous, and the new relationship to streets and vistas outside contributed to the spatial effect of the square proper. Where, as for instance on the Place de la Concorde in Paris or in Nancy, a visual relation to monumental buildings outside the square existed, the vista served rather as a backdrop for the square proper. It helped to close it visually, even if at a certain distance and not as an immediate continuation of its surrounding architecture.

Jacques Ange Gabriel, the architect, was faced with the problem of connecting the extremely irregular streets of the town with a new monumental square. Thus Gabriel planned a rectangle with cut corners, its long side parallel to the river, in essence half an octagon later on the Place de la Concorde in Paris.

The spatial impact of the Place de la Concorde is entirely different from that of the seventeenth century squares in France and Italy and cannot, of course, be perceived as directly and immediately as that of a closed square.

After the middle of the 18th century the stylistic development in France turned more and more toward what is generally termed "classicism". During the 18th century classist solutions increased with the development of rational thinking. This trend expressed itself in city planning in a different concept of space. In France, the spatial organisation, squares and axes alike, represent unambiguously the academic-classicistic trend of the baroque, in contrast to Italy where both tendencies of baroque period are expressed in contemporary town planning. The axis with its vista was as important to the French as the three-dimensional spatial effect of the square. (Zucker, 1959)

A logical, almost functional approach rather than the desire to express three-dimensional imagination directed the creative process. The leading theoreticians of this
period continually referred to logic and general philosophical principles. Simplicity in contrast to richness and variety of expression became the idea, and it was this idea which writers and artists saw primarily in the works of antiquity. The beginning of systematic archaeological studies in Greece and the excavations in Pompeii and Herculaneum from the middle of the 18th century stimulated the study of antiquity again and influenced all aesthetic considerations. (Zucker, 1959, p. 189)

Accordingly, the straight line become predominant in architecture and hence rectangularity (gridiron scheme) in city planning. Thus, quiet naturally, the street, conceived of as a continuous perspective, mostly of similar units, become more important than the square. (Zucker, 1959, p. 189,190)

The idea of combining a square with a promenade, as in Nancy, was taken up again in Nantes. Here the combination of three squares was first conceived by Jean Baptiste Cenaray. The combination of the three squares, the Place Royale, the Place Graslin, and the Course de la Republique lacks any structural or spatial integration. From the Place Royale, the main traffic artery, leads to the Place Graslin,(Fig.3.1.41) entering it at an oblique angle as do the other streets which radiate from it. Another street opposite the facade of the theatre serves as a link to the Course de la Republique, though without an axial relationship between the squares. The Place Graslin consists of a half-circle attached to a small rectangle in front of the theatre. The theatre dominates the slightly sloping square, which is surrounded by extremely plain, typical classicistic facades, brought into harmony with the theatre by the identical height of all the horizontals. These horizontals are repeated in the facades farming both sides of the Course de la Republique(1789), an outspoken residential square like so many of the same period in England. The rather small distance between the comparatively high houses on both sides makes the closed rectangle appear more a promenade than a square. The complete lack of axial relationship in the spatial connection of these three squares is obvious. This lack is all the more astonishing since it contrasts so sharply with the tradition established by the grandiose city planning schemes of the first two thirds of the century. (Zucker, 1959, p. 190,191)

The grand perspective of Versailles in France had effects on city planning all over Europe. Regularity and rigid formalism of the French space concept were accepted and copied with minor national variations. The emphasis was on movement systems by wide streets and the more striking individual buildings. These ideas were used by Haussman in the nineteenth century. At the beginning of the nineteenth century, the
Figure 3.1.41. The combination of the Place Royale, the Place Graslin, and the Course de la Republique (Source: Zucker, 1959, p.191)

desire for “discipline, regularity and rigid lawfulness” of the functional approach diminished the third dimension and dealt only in two-dimensional design. (Zucker, 1959)

The countries outside Italy and France where noteworthy squares were created during the 17th and 18th centuries were England and Germany.

It is necessary to summarise once more the different trends of development in space between baroque and classicistic, in creation of squares within they’re given environment.

Because of the forced acceleration of visual perception, this baroque interpretation of spatial unity is, stronger and more suggestive than the quiet, balanced unity and static entity typical of the Renaissance. The continuously shifting interplay of light and shadow contributes further to the “hide-and-seek” of spatial impressions. (Zucker, 1959, p. 233)

All these effects are based on the possibility of movement. Thus the dimension of time is added as a decisive factor in contrast to the timelessness of the Renaissance equilibrium. Now space is actually liberated and is perceived not in any finite form but
so to say, in successive stages of development, in the process of becoming three-dimensional. Individual architectural elements and the multitude of their spatial relations direct this movement. Such elements are, for instance, the direction of the incoming streets; the position of monuments and fountains; differences in level; and, last but not least, the fluctuating building lines and staggered volumes of the surrounding structures. Their aesthetic impact is intensified, if possible, by the illusion of seemingly increased depth, by the visual penetration into the third dimension, created by all the techniques of a refined stage design. Of course, this appeal to visual imagination, so natural and widespread during the seventeenth and eighteenth centuries, demanded a highly conscious perception. Subjective spatial interpretation, so often suggested in painting and sculpture of the same period, was challenged. (Zucker, 1959, p. 233)

The 18th century architecture is the neo-classical. It is seen to be continuation of Baroque and Bourgeoisie. In the 18th century the city planning works gain importance. Baroque approach to urban design continues at long period. The 18th century Baroque style enriched the view of functional harmony. In This era wide streets and the architecture giving wide perspective to those streets are dominant.

In 19th century Baroque applications begin to be strengthened because of changing technology and needs. In this era the plan of Patte which is a application of square and monument arrangement and rebuilding project of Paris centre of Haussmann are the two major examples showing traces of Baroque Era.

In Baroque Era, cities is thought to be street arrangement. Streets are ornamented with big scale magnificent buildings and these buildings are in clear hierarchy with squares and monuments. (Zucker, 1959)

Psychologically those Roman squares and their variations and imitations in other countries provided an infinite number of aesthetic stimuli. And since sensory responses are related to specific somatic states, the result of the continuous shift of vistas - something like a visual shock treatment- meant an increase of nervous and physical tension, identical with the psychological effect of contemporary church interiors. (Zucker, 1959, p. 234)

In sharp contrast to this dramatisation of spatial consciousness, classicistic architects and city planners do not aim at an increase, but at a reduction, of physical and nervous tension. Their intent is a somatic equilibrium as accomplished in squares from the Piazza di San Carlo in Turin to the Piazza del Plebiscito in Naples, from the Place
Ducale in Charleville to the Place des Voges in Paris and the squares in Nancy and Amalienborg— to mention only some examples. This equilibrium is entirely different from the static balance of the Renaissance. The contrast between spatial void and its three-dimensional boundaries is stressed by conscious, regular design based mostly on geometric figuration, a rectangle, a square, or a circle. Order in planning, reflecting the centralistic, nay, absolutistic, tendencies of the state, does not allow any spatial deviation, nor any play with infinite vistas. The legitimacy of the reasonably expected takes the place of the surprise of unexpected vistas; the finite takes the place of the infinite of Roman provenience. (Zucker, 1959, p. 234)

The artistic means of producing these more formalised effects of three-dimensional limitation are, first the integration of clear-cut horizontal and vertical planes as basic elements of visual perception, and second, in town planning and landscaping alike, the dominance of the axis. Both make you aware of where you stand and where your next step will lead you, regulating your kinaesthetic reactions. The clarity and simplicity of this concept explain why not only ingenious town planners but even plain real-estate speculators could bring forth within the frame of such a solid tradition decent solutions such as occurred in England at the end of the eighteenth century. (Zucker, 1959, p. 234)

The axis as backbone of the spatial structure prevails over the square and organises the environment in the classicistic vision, as does the square in the Berninesque baroque. And it is the axis, which leads the eye into the far distance. In such a context, squares integrated into an axial organisation lose their quality as primary stimuli of space consciousness and become rather extensions of the longitudinal axis. Or squares may merely represent final stops, as stages for one or more monumental buildings. (Zucker, 1959, p. 234)

Even in contact with nature, the axis is the compelling force; architecture and natural growth are equally subordinated and square and roundel alike become simply the means for retarding or stopping the visual flight. They do not represent spatial entities in themselves. (Zucker, 1959, p. 235)

Only the completely closed square, such as, for instance, the Place Vendome in Paris or Amalienborg Square, and the small squares of German residential towns are independent spatial units. In contrast to Roman baroque design, in the classicistic concept the three-dimensionality of the square, carefully shaped and balanced, does not
suppose any movement but implies rest, a place set off from the hubbub of normal town life, comparable to the seclusion of an interior. (Zucker, 1959, p. 235)

Thus it is only logical that out of the classicistic prevalence of the axis, the street, and no longer the square, evolves in nineteenth century into the leading element in town planning, from Percier and Fountain’s Rue de Rivoli to Haussmann’s boulevards in Paris. When under Napoleon some utopian town projects were planned, they were no longer based on the square as spatial centre. These rather unimportant and unoriginal plans, comparable in their schematism to the late work of Errard and Specle, merely standardise the measurements of squares, streets, and uniform houses. As an anticlimax to both the baroque and the preclassicistic development of the seventeenth and eighteenth centuries the awareness of the third dimension vanishes almost completely during the flat nineteenth century.

Actually all squares of the seventeenth and eighteenth centuries are created consciously and in full awareness of the void, the hollow space. Though the molding of this hollow space follows contrasting principles in baroque and classicistic concepts, the difference between both structural developments is still less outspoken than the difference from Renaissance squares, when the volumes of farming buildings dictated the shape of the void. (Zucker, 1959, p. 235)

Furthermore, both stylistic trends expressed rather directly contemporary emotional attitudes. These emotional attitudes were not purified through firmly established theoretical codes of classicism were formulated after the main achievements in town planning had already been accomplished. (Zucker, 1959, p. 236)

And finally, the shape of baroque and classicistic squares is in both instances based on the experience of progression in time. While the aesthetic effect of baroque squares with their continuously changing aspects supposes the accumulation of contrasts, building up a polarity of climactic sequences in time, the form of classicistic squares evolves from a gradual summing up of visual impressions, experienced in time, step by step, corresponding to straight linear progression; the onlooker is led to a logically expected stop and final rest. (Zucker, 1959, p. 236)

Thus some essential aesthetic factors in both stylistic forms of spatial expression are similar, although certainly not identical. Differences of spatial shape and architectural form do not always mean such a basic contrast as appears at first glance. The aforementioned common traits explain, for instance, how Bernini, the foremost protagonist of the late baroque, could envision such a typically classicistic project as the
square in Ariccia. They explain also the fusion of both trends in many individual works of Italian and French architecture, town planning, and even landscaping. (Zucker, 1959, p. 236)

3.1.4. Square Concept in 19th Century New Perspective

At the beginning of the seventeenth to nineteenth century, the desire of “discipline, regularity and rigid lawfulness of the functional approach diminished the third dimension and dealt only in two dimensional design (Zucker, 1959).

According to the Kostof (1991), there are two reasons for this mention. First historical fabric of the city was not suitable for the new volume of traffic and the pressures of modern life. Second, it was believed that “history itself had to be staged and updated.” According to this, new monuments celebrating the personality and political message of the current ruler had to be erected.

Early nineteenth century, enlargement of spaces around monumental buildings was important especially in German. Hausmann in Paris had enlarged the parvis of Notre-Dame. At this time several buildings had been demolished. (Kostof, 1992) The square as a structural element in town planning was neglected. The square integrated into an axial organisation had lost its spatial quality and represented final stops for monumental buildings. (Zucker, 1959) Out of the nineteenth century classicistic trend became only the street no longer square. The civic centre had become of less value. Oversized multiple squares had been created for the new bureaucracy and for the new cultural institutions.

In the nineteenth century the industrial revolution brought a radical transformation. It is accompanied by a spontaneous and unpresented urbanisation which present two faces (Choay, 1969). On the one hand, new agglomerations are formed, on a grid iron – particularly it showed itself with the colonisation in America, meanwhile the Old World experiences an upheaval in her ancient towns which revolutionises not only the urban patterns, but also the mentality of the city inhabitants.

During the 19th century, “regularisation”, “progressists” and “culturalists” become the determining concept that best define the spatial organisation of the era. The characteristic features of these three approach and their relation with the urban fabric and square structure will be the content of the later part.
Regularisation Approach:

The concept of regularisation could be best identified with Hausmann's approaching a circulatory and respiratory system. He tried to achieve efficient working with of the city. For him, problem of traffic flow was given priority.

Second important idea behind Hausmann's planning ideology was "sanitation" through the creation of voids. With Hausmann the notion of open space changed. Open spaces that laid out for visual or ceremonial effect as in the Baroque vanished. Open spaces were laid simply for the negative reason that they are not to be filled in. And related to this idea, open spaces of verdure character have lost its semiotic richness.

In this term there are radical changes in the urban fabric. Old streets were widened in order to accelerate the traffic flow. The network of arterial connections established as "general circulatory" system (Choay, 1969). Hausmann organised around a "square" as a traffic node or nodes of relation. The enclosed square of the old order, a heaven sheltered from traffic, has been suppressed.

The idea of preserving an urban texture had not yet matured in the Hausmann's period. Hausmann destroyed the tight woven and diversified urban fabric.

Hausmann had a great influence on his contemporaries. One of them Henard, had invented a rotary intersection, which regularises traffic flow around "square" and which is widely used even today (Choay, 1969).

Progressist Approach:

The basic characteristics of progresses spatial pattern is not based on continuity of solids but on a continuity of voids. Air, light, greenery have become symbols of progress and dispersal is considered essential to physical hygiene (Choay, 1969).

Progresses were prepared to make a clean sweep of the past. The importance of empty spaces and greenery leads to a loss of urban character in the progress agglomerations. The traditional city disintegrated. The new plan has no boundaries. It is made up of endlessly juxtaposable standard units.

In the progresses no approach the relationship founded on a continuity is replaced by a relation founded on association. The reasons of their efficiency and the productivity define the organisation of association. This functional classification is the origin of zoning.

Soria Y. Mata and Tony Garnier, could be regarded as distinctive theoreticians of progresses urbanism. According to Soria Y. Mata, city form must be derived from the necessities of location (Choay, 1969).
Tony Garnier, in his famous work, Cite Industrial, established stricter zoning and lee abstract structure. His zones were to be discontinuous, expandable and separated by areas of greenery. Garnier's city was the first major urbanist project corresponding to the new conception of space. Unlike Garnier, Soria Y Mata was not concerned with architectural and aesthetic consideration (Choay, 1969).

**Culturalist Approach:**

Culturalist model is nostalgic in outlook and it is inspired by the vision of cultural community (Choay, 1969).

Culturalist approach advocate the image and the virtues of Pre-industrial City on opposition to the contemporary image of the urban incoherence.

For Ruskin and Morris (1979) recovery of urban order of the past represented a way of re-establishing the spiritual values on which rested in the past communities.

Culturalist cities are small and in human scale. These cities are concentrated and the activities in cities are intermingled. Consequently their urban fabric is continuous; isolated edifices, which deny the surrounding fabric, variety, irregularity and asymmetry, prevail.

Camillo Sitte, is one of the most important advocates of culturalist model. He established the theoretical tenets of the model of spatial organisation in purely artistic and technical manner. His guiding principle was aesthetics. But his investigation into aesthetics value in urban planning should not be confused with the numerous contemporary tendencies toward two-dimensional pictorial effects.

Sitte determined all the virtues of proceeding periods, like classical, medieval and baroque. According to him space in history is continuous and the buildings surrounding the urban space have meaning only as they are related to each other.

His spatial model based on continuity in constructed elements, enclosure, diversity, asymmetry, irregularity, imagination and connecting elements which are significantly in themselves (Collins, 1965).

For him, The square and streets which he defined them as connecting elements are important. In contrast to modern planning he emphasised voids. He defined squares, with their surrounding buildings.

According to Sitte, the vital and functional use of a square would enforce the community life and the gathering activity of urban dwellers. Besides, the square should be closed to support the community life and to function effectively. And it is the
enclosed character of its space. Enclosure is also considered by Sitte as essential to a feeling of well being (Collins, 1965)

Focusing on the Sitte’s plan for the area of the Votive Church, Vianna it’s seen that, Sitte confronts the problem of an inert, unified space in which disparate edifices (church, university and a chemical laboratory) stand out as isolated units (Trancik, 1986). Sitte used a series of arteries and new construction for interconnection of the edifices. Thus he obtains two new squares and achieves limited vista to avoid the former feeling of viciousness. He attains intimate enclosures, human scale and surprisingly rich network of walkways.

3.1.5. Square in Modern Times

The bad hygienic conditions of housing settlements create the background of new functionalist movement. So the basis for modern functionalist movement was the medical knowledge that had been developed during the 19th century and the early 20th century. The requirement for separation of work place and the residential area was formulated in this period, in order to provide the individual healthy living conditions.

The new type of urban pattern which let direct access to sun, light and cross ventilation with standardised hygienic conditions take its roots giving urban fabric completely a new character.

“Streets in the air”, “sun, space, and greenery”, which Le Corbusier called the “three joys of urbanism” replaced streets, gardens, semi-private space. It had a separation of pedestrian and vehicular traffic, the provision of play space, and local amenities (Jencks, 1978).

The functionalists neglected the psychological and social aspects of the design of residential areas and the public spaces inside. This physically oriented planning ideology give no importance to the causes of the influence between man and his surrounding environment. And “social activities” did not play an important role as a planning criterion at functionalist decade. According to Jan Gehl, streets and squares disappeared from the new building projects.

In historical perspective streets and squares had formed focal points and gathering places. But in modern times, roads, paths and endless grass lawns replaced them.
Le Corbusier's famous St. Die Centre in "St. Die France", is a classical example of Modernist Theory. As Steven Peterson defines, it is an anti-space. Roger Trancik, in his book, compares St. Die with Piazza del Campo in Siena, he criticises Le Corbusier's piece of art as:

"The relationship of mass to void is the reverse of that found in Siena. There is, furthermore, no definition to the edges of the open spaces, and the composition is based on an arbitrary imposition of the orthogonal grid. In Siena there is a clear hierarchy of public space, While in St. Die no apparent sequence or hierarchy exists. Free-standing buildings as icons are the determinants of urban form, and connected public space is lost". (Tange, 1984).

According to M. Fried, in his article "Grieving for a Lost Home" (Fried, 1972):

"Urban planning cannot be limited to bricks and mortar. Physical factors may be of great importance when related to the subjective significance of different spatial and physical arrangements, or to their capacity, gratifying different socio-cultural groups. For the present, we can only stress the importance of local areas as spatial and social arrangements, which are central to the lives of working-class people. And in view of the enormous importance of such local areas, we are led to consider the convergence of familiar people and familiar places as a local consideration in formulating planning decisions."

In Modernist Period, because of the street design, high automobile dependency and the wide dispersal of people and events, the mass media like television and the big shopping centres took the role of public open spaces in such settlements. Especially, functional shopping centres, which are forcing all activity into an enclosed space, have become the only contact points with the outside world.

Monumental squares shaped by Modernist Theory, in many cases served for important aesthetic purposes. In monumental square the scale is "then grandeur", because the important thing is to show power, prestige or a strong belief to God in the case of religious buildings. Square concept is expressed in formal and usually in a rigid geometrical way. Charles Mumford Robinson point at that Modern Art (1988):

"Squares add variety, beauty and stateliness to cities are excellent for civic sculpture, increase the value of adjacent buildings by assuring light and consciousness of vantage to highlight attractive facades."

Monumental edifices, with its space around, contrasts with city residents' daily life, because of the ideology it reflects. As mentioned, the monument itself is supreme
over an ordinary city resident so the monumental square with its intrinsic elements ignores the daily life and daily needs and expectations of urban life. Place doesn’t give the sense that there is a connection between design and the city around it. It is unique, timeless and dominant with regard to the rest of the urban fabric. (Trancik, 1986). In fact the main purpose in designing such monumental types is to fulfil these features.

Modernist approach could not see features of the urban space. It wasn’t well understood by the people who were designing it or the people who were playing for it. According to C. Jencks (Jencks, 1978). Modernists could not understand the urban context: They didn’t think of the true role of the public space, how it had to provide easy access and draw people in. They didn’t understand the importance of the relationship of the space to the sidewalk and the street and the need to have activities – food, retail and whatever- to attract people and to bring the space alive. They over emphasise the objects rather than the tissue between them and they design from the inside out rather than from the exterior space to inside. But some architects, like Venturi, found a new respect for “poche” or leftover, tissue building the ground for any cities figures (Jencks, 1978).

3.1.6. Post Modern Square

As C. Jencks, the new theory of place should be handled in “ad-hoc” fashion from the fragments of past and present systems in order to give maximum qualities of symbolic meaning, identity and place to different individual room spaces. Ad-hoc type space approach characterised with the juxtaposition of fragmentary space units, which has a distinct identity, symbolising a certain ideology. Jencks defined ad-hoc as:

“Are not only strange and quite beautiful, but they also have a density of meaning and reference. History, time and place are literally built into them”.

The essential point, behind post-modern theory is its intention to create a concept of “place” which emphasise the cultural and human characteristics of physical space. Theoreticians define “place” from different point of view. Ralph Erskine, advocate more “Rationalist and technical approach toward a more meaningful, expressive combination of past and present systems". Doing this he attempts to respond vernacular, organic systems. Kevin Lynch, in his famous work, “The Image of City, 1966” has studied the mental mapping process of individuals in the city, for reaching to the “sense of place”. Lucien Kroll, in his well-known design for “Paramedical Faculty
Buildings for the University of Louvain near Brussels emphasised participation process. To capture the "sense of place", he allowed participants create their own design. According to Cullen, the essence of the place concept lies on the sequence through space. And, Krier brothers become the new classicists and use the formal devices like symmetry forced perspective etc. to connect the new to the existing. All these theoreticians were seeking to establish post-modern spatial continuity through attaching meaning and identity to place. This was fulfilled by a meaningful combination of past and present.

The dualistic morphology which Rowe and others developed emphasised public realm. The traditional notions of streets, squares, arcades, become vivid again. Basically, as Jencks pointed out this is a return to an old and never perfect institution, the public realm the agora, as space for people to debate their varying views of good life or assert their community. Public realm comes back as the major focus of design in the schemes of Charles Moore, Ricardo Bofill, Antoine Grumbach and Krier brothers.

The most telling example of Post-modern architecture is Piazza d'Italia of Charles Moore in New Orleans. The Piazza's main theme is nostalgia. All the classical orders are present. The piazza is a symbolic focus to be part gathering place and part memorial. Charles Moore in the plan of the piazza concentrated on such a focus, a fountain as the Mediterraneen. He designed it as a map of Italy. (Fig. 3.1. 25)

Figure 3.1.42. Ground plan of the Piazza d'Italia.
(Source: Favole,1995, p.77)
Shortly, the aim for the Plazza was to give identity to the Italian community in New Orleans where other ethnic groups dominate. Piazza d’Italia was designed solely for the purpose of fiction. It contains lots of fictional materials. In the Piazza d’Italia, Moore used a series of brightly coloured curved classical columns, arches, including capitals made from reflecting materials and insets bearing the self-portrait of the architect. (Fig. 3.1.18)

Figure 3.1.43 Porticoed wings provide the setting for St. Joseph’s Fountain. (Source: Favole, 1995, p. 76)

“The importance of the plazza is the plurality of cultures to which it is addressed. For historians there are references to the Marine Theatre of Hadrian and the triumphal gateways of Karl Fredrich Schinkel. For the Italians there are references to archetypal plazzas and fountains, for the modernists there is an acknowledgement of
The piazza d'Italia characterises the Italianness and it takes its cue for content and symbolic form from local culture of Italian community. The piazza is strong focus and it has sense of place. “There is a pleasant mixture of old and new meanings, symmetrical Baroque and asymmetrical Modern enclosed and open, low and high”. (Fig. 3.1. 19) (Jencks, 1980)
Robert Krier, in his book "Urban Space" emphasise the importance of arcades, streets and squares. He recreated the images of the public realm. His design gave importance to centrelness and enclosure, which were common to most of the European squares of the past. Robert Krier, in his book "Urban Space ", show the importance of arcades, streets and squares.

Aldo Rossi gave importance to “memory” in the city. Such paradoxes were the basis of Rossi’s spatial approach, but he was instrumental in turning architect’s attention back to city morphology and the way in which the city and its monuments form a collective memory. So he used streets, arcade, square and monument in his work.

The ad-hoc use of set pieces a contextual approach to urban fabric and city memory summarise the post-modernist space concept and square formulation.

Post-modern thought on urban studies frame “issues of uneven economic development in terms of the mutual relation between a more socially conceptualised space and a more spatially conceived society”(Zukin, 1988).

After 1945, suburbanisation in the United States brought about decentralised housing and shopping malls it destroyed the existence of central business districts. From the early 1970s while global and metropolitan processes are represented by decentralisation, the urban level is represented by “some sort of recentralisation in core cities of global markets”. Multinational investment supported both continued decentralisation and a reconcentration with greater stratification of urban shopping districts (Zukin, 1988).

Historical suggestions of postmodernism is seen only in major cities of United States and Europe since the early 1970s. These changes are parallel with “competitive business services” and “high style consumption”. (Zukin, 1988) The historic preservation as a real estate investment brings about changes in culture and society. The limitation in handling this subject does not “deal with the relation between visualisation and social reconstruction.” (Zukin,1988 ) Urban forms are emphasised by the dominance of markets. Investors are more and more national and international rather than local developers. The major influence on urban form had become the internationalisation of investment, production and consumption. Standardisation and differentiation are preferred to local variations. The separation of public and private space is denied. At this point Sharon Zukin tells that an attention is required to “both structural forces and political, economic and cultural institutions.
3.2. Eastern Counterparts

3.2.1. Square Concept in Traditional Islamic Settlements

During the period of Dark Ages a quite different space concept from the Western World developed in Eastern counterparts. This concept includes irregular planning in contrast with were well known as regular planning of Classical times.

In traditional Islamic city, a person identified himself primarily by his religion, and then by his neighbourhood. He felt himself as a member of this neighbourhood, but not a citizen. (Tankut, 1993)

“If space and anthropological form are structured according to homologous, models the study of urban form must also bear in mind the oppositing between the masculine and the famine. Arab Islamic society has established within its structures and which corresponds to the respective role is one of communication of speech and exchange. This corresponds to the exterior space where meetings and diverse forms of exchange occur. The woman’s role is more domestic and her space is the house, the terrace and its immediate surroundings. In this context, the enclosure embodies the sign of femininity. It conveys the principles of immobility and fixity which are represented by the enclosed space of the courtyard house. The pathway on the other hand signifies masculinity -it conveys the migratory tendencies and constitutes the urban space that flows between the enclosures.” (Seragaldin, Sadek, 1982)

Eldemir summarised as features of the traditional Muslim City as:
- Compactness and continuity of urban form.
- Narrowness of the street and cul-de-sac streets opening to them.
- Organic structure of the traditional centres.
- High density
- Public space-private residential space separation
- Concentration on enclosed spaces
- Fewness of public green spaces
- Profusion of private gardens
- Lack of planned square
Besides this features of Muslim city, spatial organisation according to the social principles has two important conditions which forms the urban fabric. A city should have a central mosque complex which should serve the residents of the city and a suq-market place, serving the needs of the people in the city and surrounding countryside. Also, public and governers place could be regarded as major urban elements in Islamic city.

During the rapid spread of Islam Prophet's Mosque in Medina become a model as a centre for worship and administration. The first building project a Muslim leader would undertake in a new areas was to establish a mosque which has the main purpose of gathering. So mosque has a symbolic meaning of political and administrative power. The major mosque, which for the purpose of assembly was particularly large. The greatness of the courtyard and the overall mosque is the distinguishing character of the central mosque for instance, in the seventeenth century in Bursa, the mosque was placed in the centre with the Dar-al-Imara the dwelling of a prison and Divan courthouse in front of it.(Hakim, 1986).

Prophet's Mosque at Madina was an inspiring layout for Jami al-Zaytuna (Fig.3.2.1) the central in mosque in Tunis, which was established in eighteenth century. Zaytuna mosque is planned around a courtyard of the Zaytuna Mosque has been the largest open space in the Madina and it provides an impressive and strong sense of space and quietness in contrast to the narrow and busy streets.(Hakim,1986)

Figure 3.2.1. Showing the area of Suq south of Zaytuna Mosque, Tunis
(Source:Hakim, 1986,p. 135)
The suq surrounds the mosque on its there sides of the mosque which are the activity generating factions. Suq means such as market place for foods and necessities. This area contributes the shaping of urban fabric. Hakim identified several suq types. Some of them are;

The major suq area round mosque; which is single-storey structures with covered pedestrian streets. (Fig. 3.2.2)

Figure 3.2.2. Zaytuna mosque in Tunis and the surrounding Suq indicating the traditional distribution of its major trades and products. (Source: Hakim, 1986, p. 85)
Weekly or seasonal markets using open areas, which are relatively well located on major thoroughfares.

Suwaqaqas; the term in Arabic implies mini-suq. These are cluster of shops which are usually function as small centres in the neighbourhoods mahalles. They usually have a bakery, grocery, possibly a nearby Mescid and occasionally a Hamam. They are grouped around a central open space which is framed by the intersection of important streets.

These types provides more understanding the public space organisation and gathering activities.

The spatial arrangement of mosques and the market place are functional and create visual varieties within a simple unified design and organisational framework. Because of providing to participate into social activities of Muslim citizens they are major urban places where the social encounter and gathering take place. In addition to these elements, also called Rahba or Saha which refers the same meaning in Turkish. Bath with Medina has an important character. It is located where the mahalle facilities and a proportioned and geometrically regulated space in front of a significant such as the one at the entrance of Dar Hussein which was enlarged by the French. (Hakim, 1986)

Maidan-i-Sahah the "Square of Kings" become the centre for the new district. (Fig. 3.2.3) The square of Kings forms a strong contrast with the existing urban fabric. The enclosure in this huge urban space is done by again two-story arcades which is a successful as its European contemporaries. It gives the sense of rhythm and integrity. The first floor of the arcade is filled with shops giving the square a commercial character. The arcade is built with concave arches. These concave arches are repeated in intervals of uniform measurement around the square, an accent to its regular shape that contrast sharply with the disorderly bazaar (Ashibara, 1983)

The bazaar area between the Friday Mosque (Fig. 3.2.4) and Square of Kings established the inter-relation between these two important attraction points become the backbone of the city. There exist public bath(hamam), caravanserais (kervansaray), school (medrese) and a small mosque in the squeezed fabric of the bazaar area. It locates a long the street , lead to the residential areas, where the houses are all of courtyard design and nothing can be seen of the inner activities. Also, it provides a connector into which mosque, school, public bath and the whole hierarchy of public spaces. The end of the bazaar opens up to an immense space, which is northern end of Madian-i Sahah. Appearing the narrow and dark fabric of the bazaar area and then
suddenly feeling the sun, light and openings. These spaces do not give the feeling of intimacy and enclosure that one can feel in typical Italian squares. Because, the size of this space is far bigger than the 58 by 148 meter average among the large European squares described by Camillo Sitte (Ashibara, 1983).

Figure 3.2.3. Maidan-i-Sahah (1), Masjid-i-Sahah (2) in Isfahan, Iran (Source: Hakim, 1986, p. 109)

The bazaar area between the Friday Mosque (Fig. 3.2.4) and Square of Kings established the inter-relation between these two important attraction points become the
The European city is characterised by a pattern of streets and squares to which the buildings of the city are fitted. On the other hand the Arabic city is characterised by one or two story buildings planned around courtyards, with gaps between for alleys, to
meet the demands of movement and communication. Both Aleppo in Syria and Isfahan
in Iran retain a good deal of their ancient fabric and pattern. Aleppo is a particularly
interesting case to take because its origins are similar to the origins of many European
cities, that is to say Hellenic and Hellenistic or Roman. These origins may be traced in
the regular pattern of streets around the souk and in the Great Mosque, which stands on
the Greek agora, next to the temple, later the Byzantine cathedral, parts of which
survive in a madrasa on the same site. The urban patterns of Isfahan illustrate the point
that buildings are planned around courtyards cheek by jowl, with gaps between for
alleys. Through this intricate fabric roads have recently been cut with catastrophic
results. (Serageldin, Sadek, 1982)

Isfahan lives on as a symbol characterising the Eastern townscape tradition
which is responding the local climate and culture with its own values of urban elements.
The townscape of Isfahan, with densely populated, mud-brick houses, with interior
courtyards and narrow organic street pattern represents the harmony of regions
landscape and climate. Isfahan has an urban fabric carrying the features of Islamic
culture. In the late 7\textsuperscript{th} century Islamic culture showed its effects with the rising Arab
power in the region. Coming to 11\textsuperscript{th} century Islamic Architecture built important
examples during Selçuk Period. One of such examples is Mescid-i Cami "Friday
Mosque". In the 16\textsuperscript{th} century changing political power resulted with moving the capital
to Isfahan. Shah Abbas built a new centre at the south-western part of the existing city.

These differences between the public and private domain in Arab and
European cities are reflected strongly in the actual buildings and spaces. The European
square usually contains some of the city’s ceremonial buildings –the guidhall, the
cathedral, the campanile or clock tower- as well as its shops and open market. All face
on to the square, which is itself a public place, nowadays often ruined by traffic.
Notwithstanding the frequency of the monastic cloister or palace courtyard, the
importance of the street in European cities is paramount. In Arab and more generally
Islamic cities that importance is transferred to the souk with its khans and workshops,
and of course to the public courtyard of the mosque. The Imperial Bazaar in Isfahan is
straight and architecturally quite formal, as are the large caravanserais which service
this part of the Bazaar. (Serageldin, Sadek, 1982)

Islamic urban and cultural organisation is the physical manifestation of the
equilibrium between social homogeneity and heterogeneity in a social system which
requires both segregation of domestic life and participation in the economic and
religious life of the community. Characteristically, the city comprises a system of public, semi-public, semi-private spaces, varying in degrees of accessibility and enclosure. The main public areas of the town are those of the central shopping area, lined with open shops and workshops, associated with major mosques, cafes, and caravanserais. This is the domain of men, with the emphasis on accessibility and unrestricted contact. (Serageldin, Sadek, 1982)

Hellenistic principles of town planning and urban life had a considerable influence on the form of Arab settlements for some time after the appearance and spread of Islam. Later as Arab Islamic cities began to find their own characteristic expression. Muslim settlements such as Aleppo and Damascus exhibited remarkable variations on their originally Hellenistic and Persian features. City walls continued to play their major roles in determining the shapes and sizes of settlements. The Friday Mosque replaced the agora, and the souk developed from the colonnaded avenue. (Serageldin, Sadek, 1982)

These features characterising pre-industrial Arab towns may be summarised as involving the following elements: clearly defined boundaries; small gateways; narrow winding street patterns; an organisation based on hierarchy of spaces; a mosque as a central feature; a souk; the residential quarter; and the caravanserais. (Serageldin, Sadek, 1982)

3.2.2. Square Concept in Ottoman Settlements

During the Ottoman Era to Turkish cities, different urban space concept developed according to the different geographic conditions, political and economical situation throughout the history.

Ottoman cities has three inputs from early cultures. These are; from ancient times, Byzantine period and from Selçukian Era. These decades influenced the urban pattern of Ottoman Cities. Ottoman settlements includes Turkish traditional and Muslim culture.

Squares are important urban elements in the reflecting of the social structure. We can not see any square which reflect the identity of city in our country. Because there has not been an understanding of square in our country as in Europe.

Although there are not organised squares in our country, courtyards of Mosque have been seen efficient for accumulation of people. Early Christian courtyards or
Mosque courtyards in Islam are big city squares which are surrounded with covert pavilion. In the Turkish countries which have conservative social structure, social request which promote the development of city squares aren’t seen.

When we look the architectural features of Turkish country Mosque and houses are the atrium based spaces. In Islam, the Mosque which show introvert urban life gets the place of form which show extrovert urban life features of Byzantine.

Mosque courtyards were used for the different activity outside of namaz times. Hodja had been teach ,Kadıes had been hear a case and town crier had been done the announcement under the pavilion. Mosque courtyards were used to be town squares.

Muslims constructed their major Mosques in the place of forum in Roman cities, which were conquered by them.

The relation of religious square and town square are both seen in every kind of rectangular square which is surrounding with arcade called the monastery in Christian In the end of 15th and Mosque courtyards in Islam. The difference of Islam cities from Christian cities the absence of organised square to different from Mosque square.

In Islam cities, public squares have not a definite form; squares were the getting together of bulks between mosque and shopping centre and neighbourhood. Because of this, hierarchy of squares is more mentioned than a single square in Islam.

The squares in Islam show the differences from the west tradition. To be different from West tradition in Islam squares, military, religious and traditional functions are not permanent and changed with each other. Commercial life provides the development of social life and development of Islamic squares. The most important reason, which hinders of the development squares, is the commercial activities, which in atrium based and closed spaces. Spaces, in which the social life is formed, are mosque, courtyard, cafe, and tekke and public bath.

Because of the centre of social life is mosque, social request which encourage the development of the square is not discussed. The idea of regular square is not developed. The another reason of this is the absence of long historical background of tradition of leading them selves in Turkish cities. However, in Europe country the squares define spaces which are in front of the administration buildings.

According to Lynch, the city is recognised and well understood by nodes and the other four elements (which are paths, edges, districts, landmarks). As far as the traditional Turkish cities are concerned the citadel, the market area and the site of külliyes were the nodes in relation to which the squares were established. (Önal,1994)
So, the citadel, the market area, mosque and külliye complex which is continued commercial life and cultural, religious and educational activities, is the major gathering places.

According to Önal the Seljuk and Ottoman squares in Turkish cities were urban spaces serving the whole city in terms of civic, ceremonial, religious, social, educational, cultural, commercial, residential, recreational and transportation functions. For her, each of these functions were represented in different types of squares according to different positions in Turkish cities. These are the commercial squares, the educational squares, the residential squares, the quay squares and the government squares. (Fig. 3.2.5) (Önal, 1994)

1. Eski cami (The Old mosque)
2. The bedesten
3. Rustem Pasa caravasera
5. Üc Serefeli mosque
6. Peykler madrasa
7. Saatli madrasa
8. Mezit Bey bath
9. A han
10. Selimiye mosque complex
11. Arasta

**Commercial Squares:** The commercial squares were located next to the citadel, in front of one of the gates along the main trade routes and caravan roads. Commercial squares are composed of commercial buildings, religious buildings and public buildings.
The minaret of the principal mosque is the only vertical linear element in a commercial square dominated by a commercial building and a mosque. The minaret provides a focus for a commercial square along its edges. However, the dominating building in all commercial squares is a bedesten.

In commercial squares, unity is also achieved through the use of regional building materials (roof, pitch, eaves, ridge details, windows and doors) and proportion. The relation of the height to the width to length of each component, its proportion and the relation of its parts to each other and to the building itself as a whole, present a unity. Moreover, each component expresses human scale by its sub-divisions. (Önal, 1994) All commercial squares represent an irregular and sometimes a linear form determined by the form, configuration and orientation of the surrounding buildings in the urban fabric.

![Diagram of commercial square in Eğlenhoca, İzmir.](image)

Figure 3.2.6. Plan of the commercial square in Eğlenhoca, İzmir.

Commercial square in Eğlenhoca is surrounded with Mosque, shop and café. Square formed different level. This area is used both Mosque courtyard and commercial activities.
An other example to commercial square is the centre of Kösedere village. This square is surrounded with cafes, mosque and shops.

Figure 3.2.7 A view of commercial Square in Eğlenhoca, İzmir.

Figure 3.2.8 Plan of the commercial square in Kösedere, İzmir.
Figure 3.2.9 A view of commercial square in Köse dere, İzmir.

Figure 3.2.10 Plan of the commercial square in Alaçati, İzmir.

Figure 3.2.11 A view of the commercial square in Alaçatı, İzmir.
**Educational Squares:** Components of the educational squares next to the imperial külliyes represented by the components the imperial mosque complexes of Ottomans. Architectural details of buildings, which occurred the educational squares, reflect characteristics of different architectural qualities of the great imperial mosque, a perfectly designed building standing free on all sides in a regular space, achieves a reasonable balance in harmony with the spatial qualities of the square. Shape of the educational squares should be examined in two separate periods: The first examples of educational squares represent a complete irregular shape, whereas the latter ones are represented in a regular and even sometimes in a symmetrical form, in contrast to their former and to the informal squares with the mosque at the middle dominating the whole space intended to reflect the centrality of universe, centrality of the Ottoman State and also the singleness of the God.

**Residential Squares:** The neighbourhood, also, is the one of the most important elements of Ottoman City. Societies from different cultural and ethnic background live in neighbourhoods without segregating themselves from each other and from urban social life.

The residential squares were located within the residential blocks in the neighbourhoods which surround the commercial and educational centres of the city. Shape of the residential squares show irregular characteristics. The shape of each space representing a residential square in the urban fabric is mainly determined by the orientation of the mihrab of the dominating mosque to the south-east to the direction of Mecca, and also by the orientation of the houses to the sun and to a picturesque view. Topography of the site is another significant factor on the shape of the residential squares. (Önal, 1994)

![RESIDENTIAL BLOCK](image)

![FOUNTAIN](image)

![BUST](image)

![CAFE](image)

Figure 3.2.12. Plan of the residential square in Bademler, İzmir
Quay Squares: The quay squares are placed at busy harbours on a flat area. The contemporary quay building is the common element in all quay squares. The dimensions of the quay building are usually in good proportions to the space itself, and also they fit the human scale, the relative proportions of the facade of the quay building correspond to the space. In almost every quay square, a mosque is found as a significant monument in terms of its visual characteristics.

Governmental Squares: They usually lie on an area with an easy access to the public, between the old and the new centres of the city. The governmental squares in Turkish cities are composed of a government building which dominates the space in front. The development of the governmental squares started at the beginning of the nineteenth century under the influence of the westernisation. So the physical characteristics of their components reflect the architectural features of the nineteenth and twentieth centuries.

Specific configuration of the space and the surrounding buildings in the governmental squares would be expected to form regular and geometric spaces since they started developing under the western influence. (Önal, 1994)
Figure 3.2.14 Plan of the governmental square in Urla, İzmir.

Figure 3.2.15 A view of the governmental square in Urla, İzmir.
As a result Şebnem Önal, in her study of the traditional Turkish squares, determined two different kinds of spaces are formed in the urban fabric:

- irregular and unbalanced informal squares
- regular and balanced educational squares, and governmental squares.

The Turkish squares are not a closed square. They do not show any regular geometrical form, and their surrounding elements are not composed from the repetition of identical buildings facing the square with their broad fronts.

The Turkish squares are not a nuclear square. There are not formed around a central structure. Although there is always a major building in Turkish squares (for example mosque and külliye) the space is rarely directed towards this major building, yet, one of these buildings dominates the space by its form, size and orientation.
Therefore, the square types in Turkey may fall into Zucker's archetypal form of a dominated square. (Önal, 1994)

Ottoman Settlements have an organic settlement pattern. The neighbourhood unit is established from organic street pattern. The street in neighbourhoods are narrow and in harmony with the topography. Narrow and winding street pattern is the result of those days' popular transport modes which are horse carriages. The width of the street is arranged to let carriages and humans move in a harmony. Although most Turkish squares have irregular forms, and seem to lack homogeneity in their forms, it is not right to call them amorphous squares, because these spaces function entirely like squares and they have their own unique organisation.

"Some spaces in the urban fabric are interconnected and linked up with further spaces to create grouped or adjacent squares. The degree of visual and spatial continuity that occurs between two adjacent squares depends on the nature of the plan, the standing building or precinct wall, which both separates and binds them together. The relationship between the two squares depends on the nature of the connecting spaces is also important for the unity and order in the urban pattern. Spaces can be linked by a common square or by a linear space. This intermediate space is usually linear in form in the Turkish squares, and its form is determined by the organic development and orientation of the surrounding buildings." (Önal, 1994)

The main idea in the spatial organisation of an Ottoman town is the separation of public and private residential spaces and their sequential location; expressed a system of hierarchical spatial relations. Streets establishes this hierarchical spatial relations from the particular to the general. The small openings of the intersection points is the necessary transition nodes, in the organisation of sequential locations.

The street pattern of the traditional Turkish cities represents an organic and irregular layout. Thus, the streets entering the public squares show very irregular characteristics. The urban squares then become the nodes to be in, in this naturally growth pattern. The streets enter the squares at different angles from various directions, following the topographical features of the site. The sloping streets entering the squares are laid out at angles to our lines of sight instead of parallel to them. The layout of the streets opening onto a square is also dependent on the orientation of the surrounding buildings.

As the streets are the main generators of squares, it will be convenient to focus to the street pattern in order to understand the square phenomenon in Ottoman Cities.
The street intersection points are the nodes where an opening usually take place. This openings can not be characterised as "square". These are small urban spaces which serve in neighbourhood scale. But square should base where variety of social activity take place. The openings, we see in Ottoman street pattern, can not confront the features of square. So, from now on, this spaces will be named as "opening".

The openings in Ottoman City pattern does not serve only to pedestrians. They are, also, action areas for the transportation modes, which are horse carriages (Tekeli, 1980) or other animal transport modes, and in later periods for cars and tramcars. The opening has a mixed used pattern.

The elements like agora or theatre that is the basic for ancient cities can not be seen in Ottoman cities. This is related with the different social background in Ottoman cities. People get together in mosque or mescits. There is no other place for society to encounter. So theatre or big squares is meaningless for Ottoman type cities. This is one another reason why we can not see a strong tradition of outer spaces like big squares of Italian cities in Turkish cities.

The monumentality for urban fabric is also existed in Ottoman Cities. Ottoman Architecture do respect to individuals. Intimate scale is implemented even in the mosque which is a landmark and has a powerful image for the overall city. Mosque reflect the idea of powerful belief to God. there are the main elements of silhouette. For example Fatih Mosque was built to be seen from the across (Öztürk). The exterior influence of the mosque is given by two means, which first the building itself that has a pure geometry and has no decorative means (Öztürk). And the second is the space around or inside the building which is lively, aesthetic and generator of a powerful image.

The space around the mosque has powerful architectural elements that defines enclosure. But we can not name them as "square". They are interior courtyard of mosque. The aim of the space is for religious activity; it is not for the daily life of a citizen. It has a specific role which limits its use by certain activity group that is the people who come to pray.

One hand, Ottoman City has modest, intimate scale urban places which we name them as "openings", on the other, there exist urban elements with powerful image, like the Mosque or "külliye" (Tosun). This could be seen, in the first phase, as a contradictory. but it is not Ottoman Planning idea base its value to harmony with nature and the social values are basic.
When we come to the 19th century we see that the most important incident is the industrial developments and a reaction to some urbanisation approaches are developed in Western countries that were mentioned earlier. (Tekeli, 1980) Ottoman City experienced foreign influence during 19th century. With the industrialisation in Europe, new trends become effective in socio-economic structure of Ottoman capital İstanbul.

Ottoman Empire was not an industrialised country in the 19th century, but similar to most of the peripheral countries. Certainly the effects were in a harmony with the inner dynamics of Ottoman life. Or in other words, Ottoman urban life interpreted the urbanisation approach relying on their own values.

New type of development is contradictory to Ottoman traditional organic urban pattern. New commercial, administrative centres, residential bourgeoisie districts are established in geometrical order as the result of Western influence. Railway and highway become the modes of transportation. Public spaces like green areas, squares are realised as the integral part of urban fabric. Exterior space, similar to interior space, also given importance. Squares, serving mainly to traffic, is the important elements of this period.

I. Tekeli, in his article summarise the trends of those times. According to him the socialist approach which is relying on topic values could not be adapted to Ottoman life, as Ottoman Empire could not yet experienced the industrialisation process. Hausmann type urban approach would become precious by some of bureaucrats. But as Hausmann's way of dealing with urban fabric is too expensive and Ottoman's had not enough resources for implementation, this approach also would not have any significance. A third approach which was for healthy environment in terms of contagious diseases would be bestly fit to the Ottoman Empire. Because in that times like most of the unindustrialised countries Ottoman cities were open to diseases. So Ottoman decision makers were eager to agree for reformist movements on health conditions. And they are affected from 1832 and 1878 English helth reform. (Tekeli, 1980)

According to Tekeli what was best fit Ottomans dynamics at 19th century was Camillo Sitte's approach which was the continuity of Hausmann's principles and emphasising pre-industrial cities' features.

By the end of 19th century the duality on city fabric, as a result of foreign influence is felt. On one side traditional centre which serve to low income population
and on the other side newly developed modern centre serving to high income population become the actors of the duality.

3.2.3. Recent Developments of Square Concept in Turkish Cities

In historical process, the role of market place have been important of development of squares. If a new Turkish country is planed, market place, bath and mosque become city centre. If there is an existing city, the old market place is used as city centre.

Space in which people come together were mosque and market place. Nevertheless, in the last term of Ottoman Empire there was an effort to form the town square because of affection of West countries in architecture. With the construction of government buildings, it was worked to design urban squares. But squares examples which were planed and surrounded with special buildings were not appeared in those time. After the declaration of Republic in planning works, The design of urban squares were not be considered as a important part of city. Because of this reason countries have not got any successful square.

As the faultiness of urban squares is seen in the whole city scale, this situation is same in the community scale. In the old Turkish neighbourhood the small scale squares which are surrounded fountain, mosque, cafe, grocery are lost in the development plan completely.

The Republic term was full of problems. What were those: Young Turkish republic have to face with migration and housing shortage. Inexpensive land and housing supply should be taken in hand together with a new institutional framework. Also the Co-ordination between central and local governments should be established to reach healthy decisions.

We can talk about the two kinds of urban place in republican period. Jansen as the head planner of republican era continued the ideology of courtyard type urban places. He also advocates new trends, which Camillo Sitte first announced. According to new principles Jansen tries to establish European type squares. Although he is one of the defenders of pedestrianisation, he approached to square phenomenon as a traffic intersection point.

Thus the first trend is the continuity of the old pattern, which is looking the square concept as it is the courtyard of a mosque. Hükümet square and Internal Affairs
Ministry are the typical examples. In this period, usually the squares which symbolise republic were formed in front of administration buildings, in the development planning process. These squares were generally ceremony and park areas more than urban square. Exactly like this, this type of squares take a place to be foreign to the daily life and they don’t integrate with the city. (Fig.3.3.18,19) Secondly, new wave of the era huge urban spaces for mainly traffic activity like Cumhuriyet Square or Bornova Square also can not be characterised as an urban square.

Figure 3.2.18 A view of Cumhuriyet Square in İzmir.

In historical perspective a small square was surrounded of junction in country. After 1950th The place of squares in the social life began to loss their importance very fast. The big shopping centres and intersection point of traffic arteries took place of squares.
Evaluation

Important part of trends which impact society come to existence to be reaction to the former trend. These reactions have formed in the milieu created by social, politic, economic conditions etc. in our era.

If we look in historical perspective of square concept:

In early times, squares were the place which were making cultural, social, economic, religious, entertainment and recreational activities. In Greek cities, we see the Agora and Acropolis as an important urban space. In early Greek cities represent the sensitive and aesthetic character of democratic process. Temples built upon the Acropolis acted as a gathering place for political assembly of the people. Acropolis replaced the Palace. Agora, serves as a centre or urban activity which was trade, education meeting, visiting and entertainment, religious and politic.

On the other hand, in Roman Cities, Forum, also, had the same meaning with Agora in Greek cities. But it represents the development of politic power. Forum was the original centre of business, religious and political life. In Medieval Ages, power was shared between lords and religious leaders. So, church is the most important element for the Medieval urban pattern. In this time, squares were designed around or in front of the church and palaces. It was surrounded educational, social and religious buildings and commercial activities.

When we came to the Renaissance era, we saw that aesthetic value and spatial harmony was the most important elements for Renaissance city. Enclosed square, also, had an importance in urban pattern. For surrounding the square arcades were used often.
In Baroque times, like the Medieval age, importance of church increased. And, the square designed in front of the churches and Palaces for ceremonies.

After the 19th, the different square concept was developed, according to industrial revolution. In the times, when cities got more development open spaces in front of the government buildings are formed as squares. With increasing of car ownership, squares were used by the traffic vehicle. Squares became traffic junction. This transmission of public squares showed that urban areas have developed over time according to politic, economic, religious and cultural framework. For understanding of them, their historical records must be analysed.

Quite generally the meaning of the square as a spatial experience can be grasped only by those who are a ware of the phenomenon that the human reaction toward the form and dimensions of shaped and molded space changes continuously. This change happens not only from century to century, from country to country. But even within one period and one nation: and it means more then a more alteration of “taste”. It is not dependent on contemporary abstract doctrines and philosophies, although it is certainly influenced by them. It is elemental. It grows from a specific and characteristic mode of human behaviour and attitude, articulated in specific forms by the creative process either of an anonymous collective, as in the. In each instance it represents on integrated complex of reason, feeling and will.
CHAPTER IV

DECREASING OF IMPORTANCE OF SQUARES IN URBAN LIFE

The city has a dynamic structure and it grows according to changes in social life. The changing in social, culture, politic and economic structure of society cause to changing of urban fabric (house, street, square) too. This changes, first of all, is lived on city centre that is city square. Because, public squares are one of the most important urban space which is urban life densely and has social experience.

According to the changing on social life, urban spaces have been changed in historical perspective, too. Especially, this change is saw in squares clearly. In today, squares which were used for cultural, social, religion and commercial activities is used for different aims. Many of square became a traffic junction. As a result of this change, importance of squares in urban life decreased.

There are fife factors, we have discussed, about decreasing of importance of urban squares ; the planning principles, the social justice, the traffic density, the process of commercial development, the privatisation process of urban space, the technological developments.

4.1 Causes

4.1.1. By Planning Principles

One of the problems with planning and architecture today is decline of relationship between private space and social space and deteriorating on social relate. According to Heck (1989), this decline may be advanced starting with Modernism in the end of the 18th century.

In the 17th and 18th centuries planning was concerned with total composition and organisation. In contrast, Modern Movement was founded on abstract ideals for the design of free standing building. This Movement ignored or defied the importance of street space, urban squares and gardens, and other important outdoor rooms.(Trancik, 1986)

According to Steve Peterson "Modern space is, in effect, anti-space; the traditional architecture of streets, squares and rooms created by differentiated figures of
volumetric void is by definition obliterated by the presence of anti-space.....(which) leads to the erosion and eventual loss of “space”, and the results of this can be seen all around us.”

The fabric of the Medieval or Renaissance city is generally low and horizontal and there is usually a close connection between life inside the buildings and activity on the square. But designers and builders influenced by the Modern Movement abandoned principles of urbanism and the human dimension of outdoor space established in the urban design of cities of the past. With the technological developments, the modern city has become an environment of high-rise towers removed from street life.(Trancik, 1986)

So, high-rise towers designed individually occurred contrast with the forming of enclosed square.

Recently, city planner interested in different problem of city like using areas, development of traffic and communication, relationship between residential and industrial areas and zoning. This process decreased important of square which can be defined as heart of city and basic factor in city planning.(Zucker, 1959)

According to Trancik “The loss of traditional qualities of urban space has also been the result of zoning policies and urban renewal projects implemented during the 1950s and 1960s. “ Zoning legislation had the effect of separating functions that had often been integrated. Discrete districts segregated living space from working space. Isolated ”super blocks” formed by urban renewal plans closed off historic streets, drastically affecting the scale of the city. Abstract notions of compatible uses created urban areas that could no longer accommodate physical or social diversity, and that therefore were no longer truly urban. Both zoning and urban renewal substituted functional for spatial order and failed to recognise the importance of spatial order to social function.(Trancik, 1986)

Modernism and political utopianism –both of which were used to justify the most extraordinary excesses. As a result, vehicular and pedestrian systems become confused, relationships of scale were ignored, and undeveloped space was given over to parking lots in wait for development. Urban renewal worked together with suburbanisation to replace the “City Beautiful” of early twentieth century America with the noncity of isolated objects. Under urban renewal the additive framework of public space consisting of street, park, and commons was lost. (Trancik, 1986)

The value system imposed by urban renewal rejected the elements of the old town that were physically structured around a network of street-level public spaces. A
social commitment to the cleansing of city life sounded visionary and progressive, but soon resulted in environments that were unlivable. The physical environment designed to satisfy this commitment to society brought with it the stigma of "the projects" for working-class people. The standardised, prefabricated boxes offered by the housing authority were considered unacceptable. High vacancy rates, vandalism, and abandonment were (and are) commonplace. (Trancik, 1986)

4.1.2. By Traffic Density

Through in 18th and 19th centuries, many traffic arrangements were realised according to separation of pedestrian from traffic way consideration. Produced solutions related with collective transport and technical arrangements. In a new construction process, city squares didn't take into consideration and urban growth axis was passed from the important and magnificent streets in which take places of square or square series. (Paris). Because of classic city structure developed here, these axis to an important ratio, were contrast to medial space and building structure of it as a form and scale. This differentness in city view was in the perceptible level. (Mander, Peters, 1986)

In 19th century, the consideration which changes place of square according to one more street axis was appropriated very much. This consideration in square concept defines the beginning of disappearing process. This manner caused to flow of traffic on square.

Mobility and communication have increasingly dominated public space, which has consequently lost much of its cultural meaning and human purpose. Urban land in major modern cities is devoted to the storage and movement of automobiles. Partly because of this buildings are separated and contained by vast open areas without social purpose. Streets no longer essential urban spaces for pedestrian use, function as the fastest automobile link, regardless of social cost. At the outskirts of the city street has become the "strip", the square a parking lot framed by unrelated buildings. (Trancik, 1986)

Of all these factors, dependence on the automobile is the most difficult to deal with, since it is so deeply ingrained. Increasing population and traffic density caused area need. This increase started occupation prices of urban square and area which was necessary for mutual relates and people acts. So some square which had characteristics features transformed the traffic area in time. Narrow spaces near the streets and squares
were left to people and motor vehicle replaced people. (Mander, 1986, Peters, 1989). So squares which define a certain space for people, had an appearance of traffic squares, the wide traffic junctions too, as a result of traffic square formations.

Architectural participation and urban space competition was unprecedented important to take form of this new square and form and dimensions was calculated by the traffic engineers. Meanwhile, the area which takes a place traffic its around with expanding main streets and new traffic arrangements was called as squares. (Stimman, 1983)

4.1.3. By The Process Of Commercial Development

The other reason, which caused decreasing of importance of squares, is changing process of commercial activities. Also, commercial life occurrences an important part of our life now. Consequently, city centre which is defined as a market place protects a traditional existence as commercial activity area. Because of changing economic systems, the context and form of trade changed and its meaning expanded. At the end of this, market place lost its function which was centre of metropolitan economy. (Stercken, 1995) Separately, together with changes on social life and this process, big shopping centre outside pedestrian way which defined commercial activity streets. Big markets and shopping centres generally settled near by residential area which can reach easily. These usage as a space which can approved all requirements at once had dense use more then city squares. (Jensen, 1981) Commercial activity streets advised as solution arise and this changes day by day caused to the decreasing of importance of square (Schmidt, 1968).

The social and commercial role of the traditional street has been further undermined by such Modern Movement design features as enclosed malls, mid-block arcades, and sunken or raised squares. These have siphoned shopping and entertainment off the street, which no longer functions as a gathering place. The modern city dweller is forced to create a social life on personal, controllable territory instead of engaging in a communal existence centred around the street. As a consequence, individual attitudes toward the use of urban space have been radically altered.

The loss of traditional qualities of urban space has also been the result of zoning policies and urban renewal projects implemented during the 1950's and
1960’s. Thus, together with urban and social transformation commercial life changed form and it was explained in many cities this life in big closed spaces any longer.

4.1.4. By The Privatisation Process of Open Spaces

Another reason which can based on the problem in opening social area is occurred by privatising process of this area. This transformation has changed people’s relationship, which spontaneous, fun relation replaced to personal, sensitive and private relation. This transition changed relation between persons which occurred by change and spontaneously to personal and private relations. And at the end of this social culture changed (Tavakolian, 1990).

According to Loukaitou-Sideries (“Privatisation of Public Open Space”, 1993) privatisation of public open space has affected the social-physical characteristics, purpose and uses of these new open spaces.

In the past, Public open space (streets, squares, parks and other spaces) design in public realm were integrated with the design of individual buildings. Standards for integration of architecture and urban spaces were set by the builders of Renaissance in the modern city each element is the responsibility of a different public or private organisation. But in recent years, the public realm has lost its responsibility to provide open spaces and to manage the planning activities. Municipalities sought for new strategies to cope with the changed economic and political situation and they prefer privatisation. (Trancik, 1986) Arrangements of open spaces (squares, streets, galleries, etc.) had been maintained by the private sector.

As government has became more departmentalised and private interests more segregated from public. So public there is a framework of common concern has been lost. Further, the institutional neglect of the public realm is a monumental problem because of minimal investment in maintaining public space and appearance of the city. In any redesign of urban space the conflict between public good and private gain must be resolved. (Trancik, 1986)

Economic life of a city strengths its downtown and it also increases a demand for floor space and it creates pushing toward the vertical city. A by product has been the appropriation of public space for private expression. Each site is seen as a place for “image” buildings.
We have transformed the city of collective spaces into a city of private icons. Regulations intended to define the broader urban vocabulary and to govern individual projects are regularly waived if they do not suit the whims of the particular developer. The continuities of streets are broken by ill-placed buildings, height ordinances are frequently violated, and varied materials and facade styles compete stridently for attention. The city becomes a showplace for the private ego at the expense of the public realm. (Trancik, 1986)

While some people accepted privatisation as an efficient process, that there was the opportunity to obtain patternship between the public and private sectors, the empirical research showed that this was not the case. Balances of power often had been towards the private sector and they stated their preferences in the negotiation process. The responsibility of public open space provision and maintenance is transferred to the private sector by the public sector in order to release from the negative externalities. But this caused “the lack of an overall urban design framework for the downtown area.” Also “the planners’ inability to impose strong design and development guidelines” caused “a loss for the city.” The opportunity to strengthen the city’s urban form and pedestrian activity had been lost. (Loukaitou-Sideris, 1993, 151) Consequently, the need for diversity in the provision of public open space was not served well by the privatisation pattern.

4.1.5. By The Technological Developments

Since 30 years, urban spaces and squares which can be explained as a social unit, have faced the changes which were results of technological developments. As a result of this changes mass communication means replaced the physical participation. (Jensen, 1981) Changes on politic and social life provide continuity of relationship between people. Also, squares were the area which was provided this people relates. But, now, this relationships are provided by the technological means like television.

At these days, which are considered as a information and transmission age, to the communication or every kind of relations, people gets advantage from the technological development. Radio, cinema, video, theatre, magazine and computer can be included in this technological reform. For supplying his requirements, people removes his needs depending on computer, instead of establishing communication with people infallibly. Media has calmed a lot of basic functions of open spaces in cities.
Because people can be reach to their necessary very easy. So, it causes to the individualisation of people and closing of them in their home or office himself.

A very fast social changing process arise with who lives in cities receded from their private spaces. (Heck, 1989) Consequently, social life in this days have the different meanings of communication. In other words, it can be explained from the existence of technological meanings instead of architectural meaning in squares which aim gathering people. As a result of technological development, to make changes in working life and to pass in mass production, instead of to help contains peculiar to working life caused their weaken.

Whereas human kind needs other living and other people throughout of the history, because, sharing and relationship with other people are more important feature of human nature. But the changing in life style, specialising in different subject cause to the increasing of the people interest, therefore needs coming together of people are not provided, because of timeless or different reasons. Caused entrapption and psychological illness which are caused of loneliness.

As a result of technological development, to make changes in working life and to pass in mass productions, instead of the help contains peculiar to social life caused their weaken.

Planning functions in different region and arising construction not to be carefully to the human scale and historical, perspective in planning open spaces occurred the result of these changes. (Jensen, 1981)
CHAPTER V
THE ANALYSIS OF SQUARE

The square was the first way man discovered of using urban space. So, it takes more important place for the occurrence of urban space then the other open place.

Webster, in his book "Third New International Dictionary" defined square as an open place or area formed at the meeting of two or more streets "or ,as" an open area enclosed by residential buildings and commonly laid out with trees, grass walks, gardens."

One who performs a research on the "square" could come across with different terms with the same meaning in literature. Square as a word meaning is " plateau " meaning open space in Latin or broadened street as in the Spanish " plaza " and the Italian " plaza ".According to Jensen ( 1979 p.52 ) place is derived from the Latin word " plateau " or the Spanish "plaza " and the Italian " piazza ". Because the word " place " is too common and too diverse in its meaning, authors turn to Spanish and Italian. In this thesis it is preferred to use the word "square".

Fundamentally, a city square have an easy form as much as drawing of kids or painting which is made by kids. It is possible to explain as an open place which have imitative walls, doors provide a going in and out and ceiling form by sky( Webb, 1990 )

Walls limit square may be possessing straight or curve lines, as well as. It may be height or low, closed or empty. A square definitely, may not be limited or enclosed by walls. Threes or more lower urban space elements which have limited features, like a fountain or a sculpture may be defined it very well. The entrance of square may be hidden with arcades or may be occurred an open axis. Floor of square is hard surface or may be arranged as a green area. Its surface completely may be an open area appearance or may be formed an shady area by trees. According to these variables, there are infinite variation for square as size, form and function.

Besides, squares have multiple uses and, further that these uses change with time. Markets move outdoor games are internalised the place becomes obsolete. The forum of the Romans in its time was religious and political centre, school and market and a court of law.

So the square may be defined in different ways. Some authors define it according to the physical or social features of square. Squares are in contact with the
whole city, as explained by the Italian architect Aldo Rossi. For him, each square is a spatial and temporal space and a physical and social phenomenon.

5.1. The Physical Structure of Square

Space designating generally a three-dimensional expansion of any kind, is used more specifically. It means a structural organisation as a frame for human activities and based on very definite factors.

- on the relation between the forms of the surrounding buildings.
- on their uniformity or their variety.
- on their absolute dimensions and their relative proportions in comparison with width and length of the open area.
- on the angle of the entering streets.
- on the location of monuments, fountains or other three dimensional accents.

In other words, specific visual and kinaesthetic relations will decide whether a square is hole or a whole (Zucker, 1959)

According to Zucker, the basic spatial concept of a square is not always so strong that it prevails through centuries. It appearance may change for two reasons physically and psychologically. Physical change includes the erection of new buildings and alteration or destruction of old ones or a modification of the building line etc. Psychological change also includes the different way in which each generation's experiences and reacts to the given proportions and distances or the new approach by which it interprets spatial relations make a based to lead them. It is this combination of objective and subjective factors which make the same square different for each generation.

For the square, three space-confining elements exist: the row of the surrounding structures, the expansion of the floor and the imaginary sphere of the sky above. The forms of these space-shaping elements- architectural frame, floor and ceiling- are, of course, most decisively defined by the two dimensional layout of the square. These three factors which produce the final three-dimensional effect may vary in themselves: the surrounding structures may be of uniform height, proportion and design or they may differ in more or less coherence. The floor, an equally important factor for the appearance of the square, may be homogeneous in expansion and texture (pavement) or it may be articulated by slopes, steps, different levels etc. Its surface
pattern may unify or isolate the farming vertical structures. The sky, the "ceiling" of the square, although its distance, offers a visual boundary which in spite of its purely imaginary character, aesthetically confines the space of the square just as definitely as the surrounding houses or the pavement do. The subjective impression of a definite distance of the sky is caused by the interplay of the height of the surrounding buildings and of the expansion (width and length) of the floor.

The correlation of these principal elements that confine a square is based on the focal point of all architecture and city planning: the constant awareness of the human scale.

The appearance of each individual square represents a blend of intrinsic lasting factors (topographical, climatic, notional) and of changing influences (stylistic, period, born), of static and dynamic forces.

Although squares of certain types prevail in certain periods, general space-volume relations are independent than the particular historical forms. There exist definite basic types of squares which appear again and again. They show common characteristics in their spatial form, although the artistic expressions can not be pressed into dogmatic categories. The specific function of a square for instance, as a market square, and a traffic centre, or as a parvis, never produces a definite spatial form automatically. Each particular function may be expressed in many different shapes.

Hence, it is necessary to separate the various functions from the basic spatial concepts.

There are two important typology related to the form. The first typology is presented by Zucker. He differentiates squares in a historical point of view. Zucker distinguishes the square under five categories:

1. The closed squares (space - self contained)
2. The dominated squares (space directed)
3. The nuclear squares (space formed around a centre)
4. Grouped squares (units combined)
5. The amorphous squares (space unlimited)

The second typology as well is presented by Sitte. According to Sitte, there are two types of square. First one is the square deep, the second one is the wide type. In this typology, enclosure is the prerequisite of the square. Either the character is determined by the nature of the dominant building.
The closed square of Zucker and also his dominated square which equates with Site's deep and wide squares are brought together as the variant of the same type under the heading enclosed.

1-The Closed Square:

The closed square represents the purest and the most immediate expression of a sense of place. Other important qualities of squares and their surrounding buildings affect the degree of enclosure. These include the nature of the enclosing buildings roof line, the height of the enclosing buildings in relation to the size of the space, the degree of their three dimensional modelling the presence or absence of unifying architectural theme and the overall shape of the space itself.

Furthermore the spatial impression of the square depends on differences scale of the individual units, on the contrasts of higher and lower structures on their relationships with the width and breadth of the horizontal area, and on the location of monuments, fountains etc. and finally on variations in architectural decoration. Within this organisation, the spatial balance of the square will always be achieved by the equation of horizontal and vertical forces. Each facade fulfils a dual function: on one hand, it is part of an individual structure; on the other hand, it forms the part of a common urban spatial order. (Zucker, 1959)

The primary element in the appearance of any closed square is its layout, e.g., be it a quadrangle, rectangle, circle, or any other regular geometrical forms. (Figure, 5.1.1)

Figure 5.1.1. Closed Square
Source: Kostof,
2- The Dominated Square:

The deep and the wide square (Fig. 5.1.2) both fall into the Zucker's category of the dominated square. According to Zucker, the dominated square is characterised by one individual structure or a group of buildings toward which the open space is directed and to which all other surrounding structures are related. (Fig. 5.1.3) This dominating building may be a church or any other monumental structure, a place, a town hall, an architecturally developed fountain, a theatre or a railway station.

As Sitte pointed out; the building that dominates the deep square to be effective, should have dimensions similar to the space it facade. In the past it was an expansion of the function of the church's main entrance. The buildings around the church, were often functionally related to it.
The perspective of the surrounding buildings and the suction of the dominant structure create the spatial tension of the square, compelling the spectator to move toward and to look at the focal architecture.

Thus the dominant square produces a dynamic directive of motion, whereas the closed square by careful proportioning creates a static equilibrium.

3- The Nuclear Square:

The closed square, shaped by the continuity of the surrounding buildings, is easily perceived. The dominated square, although different in kind, is equally clear. It is directed through the visual magnetism of the governing structure of the dominant vista. More complex, although it’s not less real, is the aesthetic sensation of what we would call a nuclear square.

The spatial shape of the nuclear square is a definite order, although it is not knit so tightly as in both aforementioned instances- an entity, even without the frame of a continuous row of buildings or without the domination of a frontal structure. As long as there is a nucleus, a strong vertical accent- a monument, a fountain, an obelisk it is powerful enough to charge the space around with a tension that keeps the whole together, the impression of a square will be evoked. As the pyramid in the vast expanse of the desert creates an aesthetically impervious space around it, with invisible walls and the sky as dome above, so the monument, the obelisk, or the fountain, or even an individual building, will tie the heterogeneous elements of the periphery into one visual unit. This spatial uniqueness is not endangered by any irregularity of the general layout or by the haphazard position, size, or shape of the adjacent buildings. Since the visual effect of the central monument, fountain etc., is naturally limited, the dimensions of such a nuclear square are consequently restricted (Figure, 5.1.4). If the expansion of the square in relation to the size of the focal volume becomes too large, the square loses its unity. (Zucker, 1959)

Figure 5.1.4 Nuclear Square, (Source: Kostof, 1979)
4- Grouped Squares:

The visual impact of a group of squares may be compared with the effect of a cycle of murals. In both instances, each unit, the individual square and the single fresco, represents an entity perse, aesthetically self-sufficient and yet part of a comprehensive higher order- "individualisation and unity "

Such combinations exist in various forms, of which four occur most frequently:

A sequence of squares, which are different in size and form, developers only one direction, and thus establishes a straight axis.

Or, in a non-axial organisation, a smaller square opens one of its sides upon a larger square, so that the individual axes of each square meet in a right angle,

Or, finally squares are related to each other without any direct physical connection. In other words, two individual squares all into a coherent pattern although they are separated from each other by blocks of houses, thoroughfares etc(Figure, 5.1.5)

![Figure 5.1.5. Grouped Square](Source: Kostof, 1979)

Perspective potentialities and relative proportions are the decisive visual factors in reference to a system of grouped squares. Here the contrast of larger monumental buildings and smaller adjacent houses, of higher and lower eaves, of the location of monuments and fountains, of separating or connecting arcades and triumphal arches may increase or decrease the actual dimensions. The possibilities of illusionist deception as to distance and expansion may come close to the effects of stage settings.

( Zucker, 1959)
5- Amorphous Square:

It may seem odd to include the amorphous square (Fig.5.1.6) in this discussion because of its very definition amorphous formless, unorganised, having no specific shape- it does not represent any aesthetic qualities or artistic possibilities. However, if it shares at least some elements with the previously analysed types of squares, it may appear at the first glance to be like one of them.

Figure 5.1.6. Amorphous Square,
(Source: Kostof, 1992)

Rob Crier's one (Urban Space, 1979) is an system, but it is also an abstract discussion typology without history. Crier's examples come from every where, regardless of time, some are historical, and some are schematic summarise of his own and some are proposed new designs. This is the practising urban designer as against Zucker's architectural history work.

Crier formulates a typology of urban space which groups spatial forms and their derivatives into three main groups, "according to the geometrical pattern of their ground plan". (Fig. 5.1.7) the groups are ordered around the square, the circle, and the triangle. "Organic" and formalist squares are included in the same family, so that a highly irregular triangular space in a medieval town associates, classlessly as it were, with the Palace Dauphine in Paris. The sympathetic attraction here is Sitte, not Zucker. And When Krier worries about the modern period it is not because it went flat, but because of what he calls "the erosion of urban space", of which erosion the gives a blow by blow account from 1900 to the Sixties.

Fleshed out with historical context the study of shape, in certainly a legitimate pursuit, we need to recognise, first of all, that public places of geometrically ordered city plans and city extensions will be on a regular design, while "organic" cities will accommodate open space as they are able to in the improvised fabric of their history.
The Triangle: The triangle public place of "organic" towns is almost always the inflated crossroads, the characteristic setting for open-air markets. The feature is a commonplace of English medieval towns; it is likely to appear at the foot of the castle where three important roads come together. The shape is flexible: the sides tend to give, bulging or receding in gentle curves; the "points", where the converging roads open into the square, are loosely defined. (Fig. 5.1. 8)
The best-known instances are Place Dauphine in Paris, Piazza Araceli at the foot of the Campidoglio and the double triangle of Piazza di Spagna in Rome.

**The Trapezoid**: The principle here might be said to the intrusion of a climactic facade one of the points of a triangular square. The schematic reproduction of simulated a perspective box might account for the identification of the type with the Italian Renaissance. (Fig. 5. 1. 9) The telltale sequence, which some scholars consider deliberate, consists of Gernardo Rossellino's square at Rienza (1459), Michelangelo's Compidoglio (1537), and the small unit in front of the basilica in Bernini's Piazza of St. Peter's (1656).

**The Rectangle**: As a perfect square the form is relatively rare. Two famous examples are the Place des Vosges in Paris and Queen square at Bath. Because of the equality of the sides, this type does not easily lend itself to architectural emphasis, directing attention onto the open space. County and state capitals in the United States which devote one of the checkers of the urban grid to the town square,
commemorate this fact by placing the courthouse or capital on a slight eminence in the middle of the space. (Fig. 5. 1.10)

The common rectangle on the other hand, is possibly the most frequently used shape for the public place. One of its advantages is precisely that it allows a directional axis toward a culminating monument. In the case of ancient Roman Forums, this is the main temple of the city, placed against one of the short ends.
adjacent rectangular spaces, as with the monumental case of the S. Marco square in Venice. Many of the medieval specimens are certainly convergence of this kind.

The corner of the L-shaped square becomes a critical point of emphasis for the visual cohesion of the space. In Venice this corner is stabilised with S. Marco's free-standing campanile.

Figure 5.1.10. Typology of Rectangular Square, (Source: Crier, 1979)
The Circle and Ellipse: In antiquity, these forms, through infrequent, were not unknown. The Roman forum at Gerasa, and the forum at Antinoe in Egypt are both designed on the curve. The forum of Constantine in Istanbul, at the emperor's triumphal column which fixed the centre still stands.

Accidental medieval ellipses are survivals of Roman amphitheatres. The first stage in the transformation of the amphitheatre came with the conversion of the building into a fortified clan stronghold. This was a common practice in the sought of France where each amphitheatre was occupied by several groups of knights. The central space of the arena left open as the community square; the periphery was turn in to a circulate of defines, and houses were built on the seat tiers in concentric rows. When this arrangement could no longer be tolerated in the context of an independent city, the defences were dismantled and the open space converted to a public square. (Fig. 5.1.11)

The ellipsoidal or to avoid tendency of the plaza mayor in some Spanish towns returns to the conception of the public place as a setting for spectacle in this case bullfights, open-air theatre, and the like.

J.J. Gibson defined street as an urban space provides flow and square as a movement area for behaviour. According to him, while street directs in act to the certain direction, square is a space makes halt possible and it doesn't force the movement. The relationship between these two urban space elements allow occurrence of different space concept.

The limits of this formal approach is to open spaces or obvious. More recent scholars, by contrast focuses on the uses of public space. An account of squares from this viewpoint inevitably becomes a social history. This is not to say, of course, that the physical side can be ignored - every social activity must, after all, take place in a physical environment of some sort, more or less designed it means rather, that while the uses are grouped and typified the settings, historically specific, must be brought in by way of example as needed.
Figure 5.1.11. Typology of The Circle and Ellipse, (Source: Crier, 1979)
5.2. Social Structure of Square

The quality of square can be defined not only with its architectural features but also with the harmony of it in social life. Squares have a very important place in attending social transition and interaction and defining of social identity and culture of city. And, it is the hints of culture and social background of the city. For example, agora in early Greek city and forum in Roman times defined spaces which were attended social life. Europe squares, also, have been witness to festivals, ceremonies, and especially in the last years political demonstration from the Medieval age do date.

Activity in a square is important for its vitality and its visual attraction. The most successful city squares are often that sustain activity through the diversity of uses in surrounding buildings. The single most important function of an element in the city is the symbolic meaning attached to it. They are remembered as a symbol of region “St. Peters Square in Rome”, protest “Mayo Square in Buenos Aries”, life style in which world cities “ New York Rockefeller Square” and also, tourist groups “ San Marco in Venice”.

The types of square for functional features in cities are;
To be formed by civic building.
The principal meeting places for great ceremonial occasions square for entertainment around buildings such as theatres, cinemas, restaurant and cafes.
Square for shopping, shopping street, arcades and markets,
Squares around which offices are grouped.
Square of a semi-public nature around which residential accommodation is arranged.
Traffic square.
These classification is a very large extensive.

The social and urban quality of city square depends on having more functions and realising social and special activity of humans in this space. Therefore, increasing of its usage is effective in the formalisation of social life. Since there is the medium of square and having dialog, these spaces can be kept alive. Because of spaces which realise commercial activities, conferences, meetings and ceremonies squares have an encouraging and lower tension features.
Squares in historical perspective not only open space realising different activities of people and trade markets, but are exchange centres of knowledge and information also. Traditional communication system of city depended on transportation network. Information was transmitted with street from the city square to the other ones. But, nowadays, this communication is direct and synchronic. It grows independent from the physical environment. So, spatial experience is not direct effective to the functional dispersion of communication. If it is considered that, the different meaning of communication exists in our life. Also, it can mentioned an architectural meaning of communication as to parallel to its electronic meaning. Space, communication aim, makes area possible to meeting, playing, recreation, education and social intersection. Spaces which are arranged for communication address to the most important sense like seeing and hearing. According to Tavakolian (1990) these spaces are needed because of their characteristics.

Square which are arranged for communication, provide being all together and learning. Therefore, occurrence of social experiences can remove the deficiency of people.

Because of supplying of society combination, the squares show on important places in defining the social identity and forming of social culture. Square provides suitable spaces to occurrence and defence of culture. It increases sharing information for making possible to being all together and transition of information. So, it helps to increase of cultural values.

Human defines its own identity depending on relationship with the other humans. For providing relationship between people, urban open space helps to define both space identity and their own identities of people. The differences of function and form in square provide to formalisation of perceptible identities of these squares. People strengthen the feeling of claim and identification with social space which is preferred.

Open space in city can be compared to urban Theatre. Aristotle explained that people participate the game in this space for recreation, can be explained being important for democratic society to be formed these spaces which provide performing of social roles.

The other features of square make possible opportunity for increasing of people's moral level. The degree of pleasure increases with social celebration and activity. Sharing experiences during these celebration and activities occurs society
sensuous. At the same time, they reflect continuity comes from the past. Belonging to society is ensues to give confidence and impedes the sense of loneliness.

Square is effective for not only social life but also politic life. Like Habermans's explanation, if the political power is able to produce an environment of social discussion which is explained social request and interest, a square may be radical effect on the individual freedom. It may be provided for politic activities whose aim is to give information to society and sharing of thought a suitable ground.

In area, which is the aim of communication, as different from the mass communication means, it is realised to establish an interrupted and direct relation. In mass communication means, not to be question of social participation, square makes possible people relation which is various and interrupted to human. These relations developed spontaneous.

Throughout the interaction between people, the harmony between physical city scale and human scale is important. While squares provide this harmony which is necessary in social space, but it can be explained that mass communication not achieved this harmony.

Square, because of possessing all these features can be seen as means of transferring and conveying of thought into changing social system.

After physical and social framework of squares are examined, defining basic qualities which are necessary for squares is possible. These basic qualities are enclosure, continuity, diversity and vitality.

**Enclosure:**

Occurrence of successful urban square dependent on many qualities. The enclosure of square and the proportions between square and its around are the most important criteria for the designing square.

To achieve clearly defined space consider enclosure or space-forming elements and the volumes contained by the space. But a fundamental requirement of urban space is actual physical enclosure or it is a strong articulation by urban forms. Enclosed urban space is formed by material surfaces. Being important here, outdoor space is defined like forming an interior space unit by the limitative elements ( building walls ). Limitations strengthen visual quality of enclosed space. So all attentions are focused on this space.

Sitte analysed many of Europe squares. Thus he fixed that successful urban square has two main features. First one is enclosure and second is hierarchy. In Votive
square (Venice) in 1809, Sitte created enclosure added buildings and arcades to the surrounding of existing cathedral.

Therefore, the enclosure of space is perceived from two different points of view. One is based on how the space is organised and how well its boundaries are defined. The boundaries can be visual stops as well as visual suggestions such as colonnades, bollards, changes in ground patterns.

The other one is based on the dimensions of the space or the relationship between two variables, boundary height and physical distance of the boundary from the point on which the observer stands. Being human scale closed of size and proportion in space provides both, feeling comfortable of people themselves and increasing the effect of space. The proportion concept in architecture is the relation of space or object with another space or object outside itself and it doesn’t dependent on bigness. But, the scale concept relates with bigness.

The design of every elements as in city should be in a harmony with human scale. About the subject, Zucker (1959) said that as long as the size of the human body and the range of the human vision are not recognised as the basic principles, any rules about absolute, about design an composition of forms and motifs, about symmetrical and asymmetrical organisation, etc. are meaningless.

The relationship between human and building dimensions is important to the square designs. If the building dimensions are designed suitable for human scale, they effect the character of square positively. The distance between buildings must be created the sense of place to human. If there is a disproportion in vertical and horizontal plane, this effects human psychology and health. While the large area where the human scale is unimportant, caused “agoraphobia”, this opposite (narrow and closed area) caused “claustrophobia” too. In a space, degree of enclosure (the sense of place) which we feel is determined by the height of surroundings in the vertical field of the eye. (Fig. 5.2.1, 2, 3, 4)

If a harmonious urban space is to be created, the relationship between height and width of space is critical. According to Gibson the maximum harmonious proportion of height to width is to be 1:4. But, the most proportion is to be 1:1.
Figure 5.2.1. **Full Enclosure**
When a facade height equals the distance we stand from a building (a 1 to 1 relationship), the cornice is at a $45^\circ$ angle from the line of our forward horizontal sight. This is full enclosure.

Figure 5.2.2. **Threshold of Enclosure**
When a facade height equals one-half the distance we stand from a building (1 to 2) it coincides with the $30^\circ$ threshold of distraction the lower limit for creating a feeling of enclosure.

Figure 5.2.3. **Minimum Enclosure**
When a façade height equals one-third our distance from the building (1 to 3). We see the top at about on $18^\circ$ angle. At this proportion we perceive the prominent. Objects beyond the space as much as we do the space itself.

Figure 5.2.4. **Loss of Enclosure**
When a facade height equals one-fourth our distance away from the building (1 to 4). We see the top at $14^\circ$ angle. The sense of space is all but lost and we are left instead with a sense of place.

Another relationship between the height of buildings and width was defined by Alberti. According to him, a proper height for buildings is one third of the breadth of open area, or the one sixth at least.

Square which is designed very large, causes lost of its functions. According to Alexander, open space which is thought as pedestrian square mustn’t be very large. As a general rule, squares work, when their short side is 60 ft. average. The areas are the
spaces where people like and feel themselves very comfortable. When their short side is over the 70 ft. average, square seems boring. There are many famous urban squares, although these proportions were passed, like San Marco Square. Success of these squares, are used by the people, based on many reasons.

According to Sociologist Philip Thiel who worked about linear logarithmic space distance relationship the common Uni., dimensional range of space should be 60 m. to 145 m.

The table (5.2.1) shows a chronological comparison of what architects and planners have stated with specific reference to the square’s size and hierarchical relationship by Rodes (1973).

In this work, Rhodes arrived at a conduction about the maximum size of single human square of 2.1 hectares. This is the result of the mathematical square of the maximum human uni-directional distance of 145 meters, which represents the limit for hearing and seeing another individual.

Also, in the past, different approaches were advanced about proportion of square. Vitrivus, in his famous work, defined urban square proportions. For his, “The proportion between weight and length of square must be 2:3.

However, the most important reform which came together with technological development was scale difference. In spite of the designing aim of square is the same.

The target is chosen difference. While all dimensions were defined according to usage form of human in the last, today, dimensions are defined vehicles and high-rise buildings.

Despite the findings of the authors about space limit, there are many successful town square outside these strict proportional limits. The success of the square may lie their strong symbolic meaning for the community.

**Continuity:**

Continuity can be defined as a sense of order. According to Lynch, the individual must perceive the environment as an ordered pattern and try to inject order into his surrounding. In time, all the perceptions are brought together.

One of the objects which effect urban square is the circulation continuity. Circulation continuity is important because of taking alive of interest and providing a certain continuity.
<table>
<thead>
<tr>
<th>Historical theoretician/ architect</th>
<th>Square’s (hierarchical) relationship</th>
<th>Size of square</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitruvius 1st century A.D.</td>
<td>1 Central square 8 Secondary squares</td>
<td>Not specified</td>
<td>Size should always be in relation to size of population. 2/3 (W: L) proportion</td>
</tr>
<tr>
<td>Alberti 15th century A.D.</td>
<td>Not specified</td>
<td>Not specified</td>
<td>A city should a number of piazzas. 1/2 (W: L) proportion.</td>
</tr>
<tr>
<td>Filarete 15th century A.D.</td>
<td>1 Central square 16 Secondary squares</td>
<td>4.41 ha 63 ha</td>
<td>Main square consisted of three individual squares 1/2 (W: L) proportion.</td>
</tr>
<tr>
<td>Scamozzi 16th century A.D.</td>
<td>1 Central square 9 Secondary squares</td>
<td>Not specified</td>
<td>Palma Nova, Italy, constructed late 1500’s-eastern fortress city for Venice</td>
</tr>
<tr>
<td>Sitte 19th -20th century A.D.</td>
<td>Not specified</td>
<td>Approx. 36 ha To 2.10 ha</td>
<td>Square’s size should be according to size of the city it is serving.</td>
</tr>
</tbody>
</table>

When the Medieval city is examined, successful urban squares, it was seen that establishing connection from these squares to the every district of city. This connection may be provided by the different ways, at the same time, by the different squares too. So the circulation continuity was provided. To the occurrence of these squares, there is
a graduate. Squares were designed by the different attitudes. For example, a tower in square which is up to, is seen from the down square and its effect is field strongly. This create direction sense for the people.

In the Camillo Sitte’s search about the successful European urban square, two important concept formed. One of these is partially enclosed square and the other one is continuity of square. So, both establishing relationship between space and occurrence of circulation continuity provide having a certain identity of urban spaces.

The law of good continuance, which is explained as the tendency to perceive continuous as single units is postulated by Gestaltists Lynch also, remarks on this point. For him, continuity is the continuance of edge surface; similarity, analogy, or harmony of surface, form or use.

The important factor for formal attributes of continuity is the existence of a single identity or unity. The appropriate degree of unity among various components is not only related with formal relations between them but also related with functional relations.

**Diversity:**

As an inherent quality of all human creations diversity is a characteristic of the design of public spaces which often become the architectural signs of identity of the inhabitants of the town or city where they are situated.

Diversity is mentioned as a sense of variety. The concept of variety can be explained as a set of similar elements. It does not mean the order of equal elements. In other words, variety is not only a rhythm within an acceptable range of changes within the typology of pattern. The range of changes in variety is important. They should be wide enough to be recognised, yet they should be narrow enough to maintain integrity of the pattern.

Easy perceptible environment is not a simple and straight environment. Human needs variety in some way. A simple environment does not provide main component of environment image. At that reason environment must be rich and various. So when we consider an urban square perceptible of space and its around bases on variety not to simplicity. This variety is established with logical relations.

Diversity does not mean the mixing together of varied sensations. The variety of urban elements or functions in every spaces should be closely linked to each other. Variety should be applicable to cases of formal and functional similarity or homology
similarity. In conclusion if there is not diversity, there is monotony and without order there is diversity, but without order there is confusion.

"Monotony" is defined by the Lozano as the quality of environment which does not seen visual diversity and causes to the orientation difficulty in this meaning, monotone.

As a result, human being is not satisfied with a simple environment. In urban square and its around, it is preferred variety to simplicity. Space and its around is provided comprehension of people by forming contrasts to the certain degree and certain harmony not to create monotony certain harmony.

Because of monotone environments is not perceived completely. They cause to the sensual turn back. Monotone environments have not minimum differentiation.

**Vitality:**

Vitality can be expressed by sense of life. According to Alexander edges are important regarding the sense of life. He said that "if the edge fails, then the space never becomes lively."

Edges of a square is an important factor in the success. If there are not edges of square, the square becomes a transit place. For Alexander people do not linger out in the open but pulled naturally toward the edge of a public square. He calls these places as pockets of activity (Fig. 5.2.5). And he say that pocket of activity should surround the public square to form a scalloped edge (Fig. 5.2.6). This invents people to stay there.

Figure 5.2.5. As the activities grow around the space it becomes more lively.  
(Source: Alexander, 1977, p.601)

Figure 5.2.6. A conceptual diagram of activity pockets.  
(Source: Alexander, Alexander, 1977, p.600)
"Surround public gathering places with pockets of activity-small, partly enclosed areas at the edge, which just forward into the open space between the paths, and contain activities which make it natural or people to pause and get involved." (Alexander, 1977, p.602)

As a conclusion, for making spaces lively, they must be surrounded by edge scalloped with activities.

5.3. The Perceptual Characteristics of Square

Square is necessary to keep up social life. So it must be taken more alive than the other urban spaces, for having social experiences for this reason, squares must be recognised and perceived by the users.

**Perception:**

"Perception is the imagination of the environment which occurs with sense in conscience. The objects affect perception elements. This effect is transhipped to conscience." (Hançerlioğlu, 1993)

The stimulus effect which arises from environment comprehending of the stimulus effects which arises from environment by the sense and events which relates mental process is defined as perception. Our consideration about objects which were perceived occurred based on our behaviour.

Perception which automatically occurred by means of obtaining information from the environment helps the transformation to action, it helps the interpreting and evaluation of this information too.

The basic features of perception were summarised that:

- Perception is an event which changes according to people
- Action plays an important role on perception.
- Human obtains information from his environment in perceptual process.

The elementary colours, sounds, smells, tastes and pressures that were supposed to be the only data of sense have been thought of as on inborn repertory of experience on which a baby's later perception is founded. If the senses are perceptual systems, however the infant information from the world. As a person groups, he learn to use his perceptual systems more skilfully and his attention becomes educated to the subtleties of stimulus information. He learns to perceive but he does not have to learn to
convert sense data into perception. Perceptual learning is the more in reading of study because it is the more reflected.

The environment is potentially rich in affordances for human experiences and behaviour. The basic processes involved in the interaction between people and their environment are shown figure 5.3.1.

Figure 5.3.1. The Fundamental processes of Human Behaviour

Information about the environment is obtained through perceptual processes that are guided by schemata motivated by needs. These schemata are partially learned. They form the linkage between perception and cognition. They guide not only the perceptual processes but also emotional responses (affect) and actions (spatial behaviour) which in turn affect the schemata as the outcomes of behaviour are discerned. Human feelings and actions are limited by the affordances of the natural and
built environments, the cultural environment, and the intrapsychic states of the people concerned.

There are different theories of perception. These importance are them
1. The Gestalt Theory
2. The Transactional Theory
3. The Ecological Theory

**The Gestalt Theory:**

In Gestalt theory basis for the integration is the spontaneous organisation of sensory inputs to the brain. This Theory argues that all our perceptions are organised into figures. Its concepts are form isomorphism and field forces.

Form is fundamental. Gestalt psychologists compiled a list of factors that influence the perception of form. seven of these are of importance to environmental design theory because they tell us much about how units in the environment are perceived. they are the "laws" of proximity, similarity, closure, good continuance, closeness, area and symmetry.

**Proximity:** " Proximity is the simplest condition of organisation "(Hachberg, 1964). According to Gestalt theory, objects that are close together tend to be grouped together visually. ( Fig. 5.3.1)

**Similarity:** If elements have similar qualities ( size, texture, colour ) they tend to be perceived as single units.(Fig. 5.3.2)

**Closure:** Optical units tend to be shaped into closed wholes. ( Fig. 5.3.3)

**Good Continuance:** People tend to perceive continuous elements as single units. ( Fig. 5.3.4)

**Area:** The smaller a closed area the more it tends to be seen as figure.

**Symmetry:** The more symmetrical a closed area the more seen a figure.

**Closeness:** The shape with a closed contour seems as a unit. All of these laws are explained in terms of isomorphism an hypothesised parallelism between the form of underlying neurological processes and the form of the perceptual experience.(Fig.5.3. 5)

According to Gestalt Theory, all our perceptions are organised into figures.
Figure 5.3.1. Law of proximity

Figure 5.3.2. Law of Similarity
Figure 5.3.3. Law of Closure.

Figure 5.3.4. Law of Good Continuance
2. Transactional Theory:

Transactional theory emphasised the hole of experience in perception and features on the dynamic relationship between person and environment. Perception is a transaction in which the environment observer and the perception are mutually dependent on each other.

The information a person obtains from the environment has a probabilistic nature which is validated through action (Ittelson, 1976). "The information obtained from the environment has symbolic properties that give it meaning, ambient qualities that evoke emotional responses, and motivational messages that stimulate needs" (Lang, 1987). People describe their perceptions either experientially or structurally, according to studies within the transactional approach (Ittelson, 1976). Experiential descriptions consist of moods, feelings, and self-reports. Structural descriptions involve reports of what is actually perceived in terms of the physical or social structure of the world.

"Man's sense of space is closely related to his sense of self which is in on intimate transaction with his environment. Man can be viewed as having visual, kinaesthetic, tactile and thermal aspects of his self which may be either inhibited or encouraged to develop by his environment" (Hall, E. T., 1969, p.64).

The main idea to transactional theory is that experience shapes what people pay attention to in the environment, and what is important to them.
3. Ecological Theory:

The ecological theory of perception is the contrast to other theories. In this theory, perception is the active and purposeful process of obtaining information from the environment. It is guided motivations and needs.

People explore the environment to perceive the finer details by moving their eyes, heads, and bodies. Visual perception is frequently a seeking of information by head and eye movements. A person with experience is able to identify details of the world and broader relationships.

Gibson emphasised the importance of regarding the different perceptual systems. These systems are not only active but also interrelated.

An important kind of place made intelligible by the ecological approach to visual perception is a place that affords concealment a hiding place (Gibson, 1986).

Perception has two poles the subjective and the objective and information is available to specify both. One perceives the environment and coperceives oneself. We have thousands of names for such objects, and we classify them in many ways. These objects can all be said to have properties or qualities: colour, texture, composition, size, shape and features of shape, mass, elasticity, rigidity and mobility (Gibson, 1986).

Perception is multi modal movement plays a major part in environmental perception: we learn to differentiate finer details and broader classes of environmental phenomena with experience.

Spatial Perception:

The concept of space is received as an environment which provides suitable condition for analysis of interaction systems between people and environment. People with his perception identify his environment according to his aims. While, they adapt themselves to environmental condition, they interpret to space.

Perception based on pictures, which continuous change and arise as result of action. In other words, these pictures, as active are perceived as photographs which have lived and acted. Citizen which prefer living together in city, generally, meet stimulus which can be categorised as social and physical.

Stimulus relates physical environment
Peculiar to natural environment
Ecology
Boundaries
Planting
Climate
Topography
Slope
Earth quality
Stimulus relates man-made environments
Form
Materials and textures
Proportion
Perceiving as a dirt, smell, dust, smoke
Stimulus relates social environment
Social rules
Social relationship between Human
Socio-economic structure
Crowd
Stimulus not only related with whole environment but also single element are effectively to perceived of urban space.

After, to be defined this elements by the human in urban space, to evaluate in a system that is related with together, occurrence the urban space perception. If these elements were provided relationship between elements, systematically in urban spaces, also in all city. This will increase visual richness and will provide the certain, suitable and significant connection.

As a result, the most important sense of human, which provides the perception of space, is eye. Also, the other senses (sound, smell, tastes and pressures) are very important to perceived of space. Our perception is selector. While the continuity of some features are provided, some features are neglected. Gibson separated these two perception level as literal perception and schematic perception.

The level of literal perception based on physical features of environment. It depends on basic perceptive dimensions like colour, texture, shape, size etc. This level for the second perception level is a precondition which is necessary. Many researches have been made, are defined that, people do not show differences and they perceive the environment similarly.

Schematic perception level dependent on sensual evaluation which arise from physical features of environment, besides this, human experiences and his personality society that he is in, social statue and culture of person. This kind of perception level is
private, selector and changeable. While human perceive his environment in this level, people act different the contrast literal level.

Forming different concepts of similar shapes in different times and different groups can be explained this way.

Thus, size, shape, colours, texture, light and shade etc. which were defined as a literal perception element, are the components occurrence space. Properties of structural elements which from the space also determine the visual property of the space. By knowing the perceptual-emotional efficiency of visual elements such as colour, form and texture visual property can be increased.

**Colour:** In human perception colour plays a central role as a psychological component. Many studies have been done related with these effects and many dates have become a certainty after many scientific experiments. Colour is the element which is presented visually and is used for aesthetic purposes.

During the forming of an urban square colour components must be examined from building or even detail scale to city scale. It must not been forgotten that in a construction colour, has an obvious effect on the characteristic of visual environment. Due to this we can examine the colour typology in four different scales:

- City scale
- Street scale
- Construction scale
- Detail scale (windows, ornaments etc.)

Also colours are mentioned in four different opinions. It purpose is to observe the effect of material on user by the means of variable perspective. Colour, determines the property of the space and gives diversity to the space. Faulkner (1972), summarises the emotional efficiencies due to structural properties of colour.

Colour affects the space where it is used. For example, using bright colours intensively creates an exciting and cheerful effect whereas quite and pastel colours creates a relaxing effect. Gives variety and unity to the space. An order built by one colour or by the resembling colours from both warm and cold groups contributes to the unity. An order built by different colours contribute to the variety. (Table 5.3.1)
Table 5. 3.1. It was showed the physical and visual effects of colours on people.

<table>
<thead>
<tr>
<th>COLOURS</th>
<th>PSYCHOLOGICAL EFFECT ON PEOPLE</th>
<th>VISUAL EFFECT ON PEOPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>STIMULATIVE, EXCITING</td>
<td>CLOSE</td>
</tr>
<tr>
<td>ORANGE</td>
<td>ATTRACTIONAL</td>
<td>BIG</td>
</tr>
<tr>
<td>YELLOW</td>
<td></td>
<td>DRY</td>
</tr>
<tr>
<td>BLUISH-GREEN</td>
<td>CHERFUL</td>
<td>CLOSE</td>
</tr>
<tr>
<td>COLOURED PINK</td>
<td>RESTNESS</td>
<td>BIG, DRY</td>
</tr>
<tr>
<td>WHITE</td>
<td>STIMULATIVE</td>
<td>FAR</td>
</tr>
<tr>
<td>BEIGE</td>
<td>CHERFUL SKILL</td>
<td>SLIGHT</td>
</tr>
<tr>
<td></td>
<td>INCREASING</td>
<td>NEUTRAL</td>
</tr>
<tr>
<td>BLUE</td>
<td>CALMING</td>
<td>FAR</td>
</tr>
<tr>
<td></td>
<td>QUITE</td>
<td>SMALL</td>
</tr>
<tr>
<td></td>
<td>SAFETY</td>
<td>CALM</td>
</tr>
<tr>
<td></td>
<td>SKILL INCREASING</td>
<td></td>
</tr>
<tr>
<td>BROWN</td>
<td>DEPRESSING</td>
<td>CLOSE</td>
</tr>
<tr>
<td>PURPLE</td>
<td>DISCOURAGE</td>
<td>HEAVY</td>
</tr>
<tr>
<td>BLACK</td>
<td>FRIGHTENING</td>
<td>NEUTRAL</td>
</tr>
</tbody>
</table>
Table 5.3.2. Using Principles of Colours in Urban Space

<table>
<thead>
<tr>
<th>COLOURS</th>
<th>USAGE</th>
<th>THE PSYCHOLOGICAL EFFECTS ON PEOPLE</th>
<th>THE VISUAL EFFECTS ON PEOPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE COLOURFULNESS</td>
<td>Space which enhanced with nature</td>
<td>Quietness, Extreme Monotony</td>
<td>Order and Unity</td>
</tr>
<tr>
<td>MIXED COLOURFULNESS</td>
<td>Spaces are used for leisure and entertainment</td>
<td>Vitality, Extreme Disorder and Troubles</td>
<td>Variety</td>
</tr>
<tr>
<td>DARK COLOUR ELEMENTS ON DARK COLOUR SURFACE</td>
<td>Fronts and Pavement</td>
<td>Richness</td>
<td>Slight</td>
</tr>
<tr>
<td>DARK COLOUR ELEMENTS ON LIGHT COLOUR SURFACE</td>
<td>Fronts and Pavement</td>
<td>Stimulate</td>
<td>Heavy</td>
</tr>
<tr>
<td>USING MATERIALS IN NATURAL COLOURS</td>
<td>Spaces which are used for natural and long period</td>
<td>Safety</td>
<td>Colour and Function</td>
</tr>
<tr>
<td>HARMONIOUS COLOURS</td>
<td>Spaces which are used for natural and long period</td>
<td>Peace, Rest and Safety</td>
<td>The order which is suitable for eyes, Breaking and Softening intensity of colour</td>
</tr>
<tr>
<td>DISHARMONIOUS COLOURS</td>
<td>Ordinary Spaces</td>
<td>Trouble</td>
<td>Mixed colour correlation which tires the eyes</td>
</tr>
<tr>
<td>CONTRAST COLOURS</td>
<td>Attractive Spaces</td>
<td>Stimulate, Exciting and Provocative</td>
<td></td>
</tr>
<tr>
<td>PASTEL COLOURS</td>
<td>Generally Residential Area</td>
<td>Calmness</td>
<td>Gözü Dinlendirici</td>
</tr>
<tr>
<td>BRIGHT COLOURS</td>
<td>Commercial Area</td>
<td>Exiting and Cheerful</td>
<td>Attractive</td>
</tr>
<tr>
<td>LIGHT - COLD COLOURS</td>
<td>Cellious Space</td>
<td>Spaciousness</td>
<td>Wideness</td>
</tr>
<tr>
<td>DARK AND SATURATED COLOUR</td>
<td>Space Disharmonious Human Scale with its Weight or Length</td>
<td>Safety and Rest</td>
<td>Narrowness</td>
</tr>
<tr>
<td>NEUTRAL COLOURS</td>
<td>Dynamic Spaces</td>
<td>Safety and Harmony</td>
<td>Protecting Space Features</td>
</tr>
</tbody>
</table>
Express the natural-property of the material. A construction with a red-tiled roof, a grey stone wall and brown wooden woodworks shows clearly the natural-property of each material.

Colour determines the form. A line, a plane with two dimensions and a space with three dimensions are determined by their environment, background and usage of the contrast colours. Affects the proportions. Using contrast colours in parallel lines gives the emotion of width whereas same usage for horizontal lines gives the emotion of height.

Shows the scale. It is hard to determine the scale of a construction built by one coloured elements however if construction has contrast colours, its scale is determined easily from a far place. Forms the idea of weight. Dark coloured materials are seen heavy whereas bright coloured materials are seen light.

**Form:** Colour, texture and shape determines a surface, and the other structures are perceived as form, shape and lines. 'Form' expresses a three dimensional explanation shape for two-dimensional and line is used to express the linkage of a corner and space.

Table 5.3. 4. The Relationship Between Shape and Citizens in Urban Space

<table>
<thead>
<tr>
<th>SHAPE</th>
<th>PSYCHOLOGICAL EFFECT ON PEOPLE</th>
<th>VISUAL EFFECT ON PEOPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECTANGLE</td>
<td><img src="image" alt="Rectangle" /></td>
<td>DYNAMIC</td>
</tr>
<tr>
<td>ACUTE ANGLE</td>
<td><img src="image" alt="Acute Angle" /></td>
<td>UNCOMFORTABLE</td>
</tr>
<tr>
<td>CIRCULAR</td>
<td><img src="image" alt="Circular" /></td>
<td>RESTFUL, RELAX</td>
</tr>
</tbody>
</table>
Architecture and urbanisation that are accepted as the special space art can also be called as the art of searching forms. This search finds the functional forms and gives a warning effect to it to provide visual satisfaction to the user. Different arrangements of various forms build physiological effects with their environments and plans. An individual perceives the effects of the form as the system of symbols, not only a single sign and the properties of his reactions are positive or not.

First of all, the form reflects the life conditions of the community, which it belongs to, significantly and sincerely. By this way it prepares the background of optimism and aesthetic for the new generation. The backgrounds prepared under such conditions must be functional. Otherwise these spaces can’t go far beyond being liked places.

Table 5.3.5. Relationship Between Stable Space – Gestalt’s Principles and its Effect on Citizens

<table>
<thead>
<tr>
<th>STABLE SPACE QUALITY AND ITS EFFECTS ON PEOPLE</th>
<th>STATIC SPACE</th>
<th>GESTALT’S PRINCIPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>REANAISSANCE SQUARES Stableness</td>
<td>![Square Diagram]</td>
<td>CLOSE</td>
</tr>
<tr>
<td>BAROQUE SQUARES Mobility</td>
<td>![Baroque Diagram]</td>
<td>TO SHOW DIFFERENT DIRECTION</td>
</tr>
<tr>
<td>SQUARES OF TODAYS Mobility in every direction</td>
<td>![Square of Today Diagram]</td>
<td>TO SHOW DIFFERENT DIRECTIONS</td>
</tr>
</tbody>
</table>
Sorte expresses his idea as ‘People like spherical structures than the square shaped ones.’ In daily life the spherical shaped objects are preferred to sharp ones. This is an idea example of Sorte’s expression.

Urban spaces, which exist by the forms of the occurred elements, gather many warning effects. These urban spaces responses to needs by using the latest technology of its century. At the same time it must reflect the cultural, socio-economic specialities of society; life conditions and aesthetic opinions in best way. If a space has these properties it leaves positive effects on users inevitably.

Table 5.3.6. Shape-Colour Relation

<table>
<thead>
<tr>
<th>SHAPES</th>
<th>YELLOW</th>
<th>BLUE</th>
<th>GREEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>△</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>O</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>□</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

(+: HARMONY, -: DISHARMONY)

Texture: The texture of a surface is quality exist on the structure of materials. Texture which is sense with seeing and touching is called as natural texture exist to the objects and is perceived as only visual, also, is called artificial and visual textures.
In daily life, texture with its colour and brightness effects the people as visual. Not only it can be changed the features of colours which is perceived, but also, it can be spoil the shape which is perceived. If the texture that is the different characteristics, is used on the different surface of cub, the form of cub will be perceived as spoiling. So a cup is not perceived as a whole form. The perception of square is the same, too. The using of different texture to every walls limitative square may be spoils the form of space.

There must be textural unity to the building groups or in space. That is to say, a dominant texture’s characteristic which can be helper to the design must be chosen. But, this is not to mean that monotony. Also, the texture like colour can be occurrence the contrariness. So, it may be used suitably for the arousing interest. But, when the variable textures which are used, these textures create a dividing and undecided effect.

Texture gains importance in environmental perception. We feel completely different in space where touching and feeling the material is possible. When the choice of texture and material can be compose, it will be possible to see the difference between cold materials. Like metal iron, steel and hot materials like wood etc. As a matter of fact, voices source from the materials used play a great role in perceiving the design environment. Unsuspiciously it is more effective to hear the squeaking wooden pavement than to hear nothing in a carpet furnished space.

The visual effect of textures on people decrease, when the surface go away from eyes. So, being hard texture of two objects which is the same distance but different texture is perceived more closed than the soft texture of them by the people. At the same time, textures create the different effect on people according to their colours and brightness. Also, there are psychologically and visual effect on different texture on people.

In urban space which is a whole with its colour, shape texture and its elements occurrence itself and users, the using many searches bring out that the textural unity was preferred by the users of these spaces. The textures which is not monotony and provide the harmony to the environment are the right chosen in urban design. Generally, hard surface is used in space which is demanded being original and impressive. Space using this surface create a stimulate effect. While the soft surface also, is used to the suitable places for environment, it create resting, pleasure or quietness on people.
### Table 5.3.7. Using Principles of Texture in Urban Spaces

<table>
<thead>
<tr>
<th>TEXTURES</th>
<th>SPACES (WHICH IT IS USED)</th>
<th>PSYCHOLOGICAL EFFECT ON PEOPLE</th>
<th>VISUAL EFFECT ON PEOPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEXTURE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNITY</td>
<td>Natural and Simple Spaces</td>
<td>Resting, Extreme Monotony</td>
<td>Order, Harmony and Preferential</td>
</tr>
<tr>
<td>VARIETY</td>
<td>Active, Attractive Space</td>
<td>Vitality</td>
<td>Attractive</td>
</tr>
<tr>
<td>HARD TEXTURE</td>
<td>Original and Impressive Space</td>
<td>Stimulate</td>
<td>Shape and Colour of Space Structure Become Powerful</td>
</tr>
<tr>
<td>SOFT TEXTURE</td>
<td>Harmonious with Environment</td>
<td>Pleasures</td>
<td>Hiding Structure</td>
</tr>
</tbody>
</table>

### Table 5.3.8. Texture - Colour Relate

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th>COLOUR</th>
<th>RELATE</th>
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<td>PATERN KIND</td>
<td>PSYCHOLOGICAL EFFECT ON PEOPLE</td>
<td>VISUAL EFFECT ON PEOPLE</td>
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<tr>
<td>HARD HOT COLOUR BRIGHT SURFACE</td>
<td>KEEPING AWAKE EXCITING</td>
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<td>SOFT COLD COLOURS MAT SURFACE</td>
<td>QUIETNESS COMFORT</td>
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Light and Shade

Light effect on urban squares are important for perception of details. Because details define the character of environment. Natural light is variables to obtaining quality.

Light is one of natural elements which is defined existence of architectural form. Shapes are perceived from the human by means of light. Artificial light like natural lights also important. In insufficient light conditions or during the night, artificial light must be used. Sources show that urban squares which have not sufficient lighting elements prepare back ground of various crime.

Squares which have a limitative environment are vary extensive areas. The emphasise of surface which limits square is important in lighting of this kinds outdoor spaces. There are different kinds of square according to its formalisation. Besides the lighting of surface the emphasise of entrance and exit to the square is also important. The aim of this is providing easy perceived of entrances and exits for the people.

- If buildings which are surrounding square are important, the lighting regularity which emphasises architectural features of buildings is established.
- If sculpture, pool and similar urban value take a place in square, lighting regularity which emphasises the most clear features of this must be formed.
- The boundary of water is defined with light sources. Especially, in defining of big water like sea and lake, there isn't any other way. In this kind of boundary determination. It's used linear or point light source. If there are trees buildings or bridges near by the water, these elements is lighted in this result, it's provided occurrence of views of elements on water.
- To the lighting of grass area, it must be used cold light. And light sources is seen from the walker or driver if it is a traffic way near by this area. If the grass area is small. The smooth diffusion light on all grass area creates a good effect. If the grass area is big, the side of grass area and ways in to grass area is lighted.
- Small water drift like pool or lake can be lighted from with in. Being importance here is the location of lighting search and the colour of lighting and inside surface of pool. As a rule, to place lighting searches close to water surface, cause to reflecting light throughout the pool inside. The colour of light which illuminates pool must be cold.
- Sculpture, according to the features of it's shape, texture and high, is illuminated. The light of sculpture must be more than light of it's surrounding surfaces.
Darkness or lightness of general view of sculpture defines the quality of light and according to this, it also defines lighting harmony which was occurred for instance, if it is with views of object surrounding it. So, formation of the high level illumination over these objects is meaning less. Point light sources must be used over these.

Therefore, light is seen important in urban square according to the perceiving details and bringing vitality to the square.

**Evaluation**

As a result, square is necessary to keep up social life. So it must be taken more alive than the other urban spaces. For this reason, squares must be recognised and perceived by the users.

The fundamental perceptive dimensions like size, shape, colour, texture, light and shade etc. at the same time, form basic design criteria. So using way of these elements define the space quality. According to these design criteria, it is possible to evaluation of basic qualities of which were defined while examining physical and social framework of it.

In making a spatial analysis of an existing square or in deciding on the design criteria for a new square; it is possible to examine the phenomenon under the guidance of the diagram belong.
In order to achieve basic characteristics of a square, such as *enclosure, continuity, diversity* and *vitality*, properties of that square such as texture, colour, shape, size have great importance; because, these criteria determine the visual quality at that space and also influence the human psychology.

Consequently, the pattern, form, colour, size of three dimensional frame, two dimensional pattern and objects in space forms the square. Contrast, repetition or diversity in their coming together or separately; and harmony or disharmony between them, finally convey us a balance and uniqueness. This uniqueness determines the quality of the space.

In order to reach to an alliance or in order to perceive the space more clearly, the basic elements that form the square (enclosure, continuity, shape, vitality), design criteria (colour, texture, shape, size) and the relation between their usage should be discussed.

So, it is essential to study in detail, the influence of a designed space on people. According to this various effects can be created in designing square by using different patterns, colours, forms and sizes on the surfaces of the elements that boundaries the square on the pavement and at the street furniture.

**Enclosure:**

The relation between human and building scales at a square is an important point and if this relation is in harmony with human scale it can create a positive influence at the square.

If there is a disproportion in relationship between them, this effects human psychology and health. While the large area where the human scale is unimportant, caused “agoraphobia”, this opposite (narrow and closed area) caused “claustrophobia” too.

Some experiments were done in the determination of the distance between the elements and about the colour and pattern of the surfaces of the elements which are in different dimensions. According to these experiments if the surfaces of the elements have hard texture warm colours and bright surfaces they are perceived closer than they really are; on the other hand if they have soft texture, cool colours and mat surfaces then they seem as if they are remote.

In the design of squares, spaces usually consist of elements such as boundary walls, ground texture and objects within the area. Therefore, by using different perceptions like narrow-wide, law-high, long-short can be achieved.
It is possible to define to definite a square by different, ground textures. So, any differentiation in its texture, colour or shape will be helpful to define the space.

Light and shadow clarity or indefiniteness also influence the enclosure sense in a space. Because dark and shady spaces are felt closer than the bright surfaces they have a more enclosed effect. Or lighting the surrounding surfaces in a square at night causes the surfaces to be perceived more remote and gives the space a spacious feeling and openness. Besides they help to define that space.

Also, they are effective in the determination of the scale of the space according to the dimensions, colours, textures and shapes of the sculptures or landmarks used at the space.

**Continuity:**

Space are experienced by persons moving through them. The observer, in analysing existing space, may find a planned sequence to be a very strong organisational device. Sequence is continuity in perception of spaces or objects arranged to provide a succession of visual change. If may create motion, a specific mood, give direction and circulation continuity in a square, each element in a sequence should lead to the next without necessarily revealing it.

The simplest kind of sequence is repetition, which may involve colour, texture, shape and size; however, only a single factor must be reiterated for it to occur.

If a sequence of repetitive elements is interrupted at recurring intervals, rhythm is established. Rhythm gives variety in contrast to total repetition, which may prove monotonous.

A sequence of coherent parts provides continuity. The parts may be related by providing a common scale, shape, texture or colour for an area. An example is using a particular paving material such as brick throughout a series of spaces that provides continuity in shape, size, colour and texture.

As by shape, size, texture and colour, continuity can be obtained by light and shade. For example, light sources designed at certain intervals and used in the enlightenment of a square indicate direction and so provide continuity.

**Vitality:**

The contrariness between shapes, textures, colours and sizes that are used have a stimulation effect on people. So, vitality begins and people are interested. Therefore, contrariness in a design gives vitality to the design while it also creates disharmony.
Variety or contrast created by colour, texture, shape and size in a square, result vitality. For example, variety of colours, textures, shapes or dimensions of trees used in a square decrease and increase vitality. Along with this the flowers, their colours and scents changing through year create a simulative effect on people and give vitality to the square.

Artificial lighting is as important as natural lighting. Especially at night artificial lighting gains more importance. If a surface is partially shady, partially lighting it has two different colour tones. So in addition to the effect of the building another possibility occurs with tricks of shade-light. It is interesting also for breaking the monotonous effect.

Evidence of light and shade awakes interest and gives vitality. With powerful shade-light tricks a vital and dynamic effect can be occurred. In contrast, the in evidence of light-shade creates comfort, monotony and calmness.

Tricks in the usage of light and shade also gives vitality and attracts people. With hard tricks of light and shade a dynamic effect can be obtained.

**Diversity:**

Different effects can be given by using different colours, forms and sizes. Different spaces can be formed within spaces. For example, it is possible to separate circulation areas, sitting places and sub-spaces and define them. However, harmony is essential while providing diversification within a space. Otherwise, disharmony and chaos may result. Harmony can be achieved by using same colours and textures on different colours and textures on the same objects.

Likewise, we can create diversified human behaviour by using different forms. We can obtain stability by using square forms or design pedestrian circulation by using linear forms. Frequent usage of similar elements may cause monotony. Monotony can be transformed into harmony by increasing differentiation in the colours, shapes, textures and dimensions of elements. However, in this diversity, harmony should be properly established.

This perception level is connected with visual perception and since they show no differentiation from one person to another, it is easy to measure them in our designs. However, it also has a psychological dimension. This dimension shows differentiation from one person to another, to sexes, ages, cultures and according to the place and time they live in. Also, the frequency usage of the space by people is also important in this perception, this perception, and this puts forward dimension of the square. The time
spent in square, shared feelings and activities, historical values and various functions make that space vivid, even if they do not have the above mentioned basic criteria. These kinds of characteristic should not be disregarded, in the designs.

Perception levels of people can change through time, just like the changes seen in the forms used in spaces, dominant elements, functions, textures and colours, related with the cultural structures, social activities and human requirements of people. It is possible to examine the social changes by studying the life styles, economies, technological developments, etc. in history.

Related with this social changes, it is possible to study how elements used in squares, forms and functions changed in squares where a social life occurred. Most importantly, the social changes in squares can be examined, too. This will help us to understand the reasons of loss importance of the squares, today. In connection with these reasons, the changes in the squares starting from pre-historical era today and from east to west and in our country are studied in the fourth and fifth sections. In section six, the main reasons of loss of the meaning of squares will be defined.
CHAPTER VI

CASE STUDY

In the section so far, it has been seen that city squares are an important element that reflects the socio-economic, administrative and political mentality of its age. These prove the importance of the social aspect of the squares. On the other hand, physical aspect of the square depends on the visual features. To evaluate the city squares in terms of visual means results with the formation of an environment that provides the cultural accumulation and communication for people. For this reason, to make the visual analysis of the squares and to reach the right synthesis has an important role to play in determining the character of this urban space and also in the formation of an urban image. Therefore, in order to be able to understand the physical and psychological effects of the squares on people, the square should be analysed in terms of its environment interaction.

In this section, historical Konak Square is studied. For the time being, Konak Square, which has intensive, cultural, commercial and transportation functions, is the focal point of the city. The Clock Tower, the government building and Konak Mosque that are situated in this square have a symbolic meaning for the city.

The market places, which are located in and around Konak Square, have given the appearance of a shopping centre to this area by serving all the city of Izmir. However, to assume its commercial function only today would be misleading because throughout its historical evaluation, this area has performed a commercial function. Probably the only reason for this Izmir is being a harbour city and the existence of harbour in this part of the city. In addition, the Kemerald bazaar, which has been serving as a market place for the people from different financial levels of society, is connected to this area. Most of the buildings that provide the cultural activities of the city are also situated in this area. These are AKM, Resim-Heykel Müzesi, National Library, Opera and Balley Building and cinemas.

Since it provides opportunities for many kinds of activities and the needs of people, transportation to this area gains a great importance. Konak Square is a point of attraction and also a point of intersection and distribution in terms of transportation.
With all of its qualities including “dolmuş” and bus stops, boat lending place and in the future underground station, Konak Square has the quality of “node” which is specified by K. Lynch as being one of the urban image elements (paths, districts, landmarks, nodes, edges).

Konak Square has been chosen as the subject of study because of its historical importance, having a significant role for the city and its node quality that constitutes its urban image and finally the opportunities it provides for the citizen.

In the formation of urban image, the structure of Konak Square, we should have some idea about the historical evaluation of this important space. For this reason, we must have a look at the historical background of the square.

6.1. The Formation of the Model Method that will be implemented on Square

While looking into the Konak Square throughout its historical evaluation, we have observed that it has been subjected to many different kinds of events. This has proves how important the time concept is for the formation of urban spaces within the social life because through time Konak Square has experienced social, economic, cultural and political changes and these in turn has led a transformation in the physical and social structure of the square. For this reason in the spatial analysis of the square time is considered as the “dynamic”.

Therefore, in this study while the spatial analysis of the square is being done, throughout the history.

- First Period – From the beginning of 1900s tills the beginnings of 1970s (Fig.6.1.1)
- Second Period – The period between 1970 and 1980. (Fig. 6.1.2 )
- Third Period – Starting from 1980 up to the present day. (Fig 6.1.3 )

In this study, the aim is to make the spatial analysis of the Konak Square, which will be based on the main characteristics of squares such as enclosure, continuity, diversity, and vitality, and in the light of these findings to form the criteria that will be beneficial for the future designs.
Figure 6.1.1 A view of Konak Square, İzmir (1900-1970)

Figure 6.1.2. A bird view of Konak Squar, İzmir (1970-1980)
First, there have been studies for the different periods of the square. These studies are based on photographs; engravings, maps and the observations that have been accomplished in the place itself. This study has been put into three sections. First, the identification of the restrictive elements and the degree of enclosure of the square borders. Here the square is considered as a three dimensional frame. Second the content of the materials and the details of the square and the pattern of its arrangement have been researched. Here, the square is considered as having a two dimensional pattern. Thirdly, the placement of the objects in the square is studies.

The model method that is formed as a result of the studies on the analysis of the square is explained systematically. In other words, it is pointed out how and according to which criterion these studies should be evaluated.

**Observations**
- To describe the borders of the square, its degree of enclosure and restrictive elements
- To analyse the ground pattern of the square, content of details and the pattern of arrangements
- To identify the visual features of the square in terms of the focal points formed by objects (townscape and landscape elements)

**Method**
- To determine the borders of the square and degree of enclosure and to describe the characteristics of the square by the help of various pictures and sections. To research the
effect of restrictive elements on the space by analysing their pattern, colour, shape, size, condition of lighting and solid-void situation.

- To analyse the ground pattern of the square and to research its effects on the space by looking into its pattern of arrangement colour, shape texture and ratio of the materials and the details. To consider whether or not the features of continuity, diversity and vitality are provided in the square.

- To analyse the objects in the square in terms of visual features to determine whether the objects make the square perceptible by providing the focal points, being a point of attraction to find out if they can provide the continuity or whether they can create and vitality in the square according to their colours, textures, shapes, size and the condition of lighting.

6.2. The Historical Development of Konak Square

The palace where Konak Square is located is the one that is mentioned as the harbour that cab be closed with chains by strabon in sixteenth century and also it was identified as the inner harbour or “Kadırgalar Limanı” by Piri Reis. In seventeenth century, northern, European, Ottoman and Persian traders often visited the city. During this period a bazaar was built by Sadrazam Köprülü Fazıl Ahmet Paşa in order to keep the commercial vitality. This was followed by the construction of a customs building in 1675. In addition, a fireman was declared from Istanbul, which commanded all the ships entering Izmir harbour to load and unloads in this building. The business area of İzmir was intensified in Frank road and the streets connected to this road as well as Kemeraltı Street. There was an inner harbour in this area until the middle of eighteenth century. This inner harbour in this area until the middle of eighteenth century. Four mosques surrounded this inner harbour. These are Hisar Mosque, Kestane bazaar mosque, Başdurak Mosque and Kemeraltı Mosque. All of these mosques are situates in the early filled and strong soiled section of the inner harbour. Later on with the effect of flood, the harbour was filled and in 1701 the entrance of the inner harbour was completely blocked and turned into a swamp and after a short time, many inns in the form of storehouses were built in this area. Konak Square is the area,
which has appeared because of the natural formation mentioned above. (İzmir Büyükşehir Yayınları, 1995, Seymen, 1992)

The name of Konak comes from the magnificent mansion which was built in 1804 in the place of today's government building by Katipoğlu Hacı Ahmet Ağa during his period of voivode. In 1816, he was murdered by the Ottoman government with the fear that he can be influential in the coarse of time. Later, the mansion assumes the function of an administrative structure and started to serve as the government building.

In 1829, Sarıkışla was built. In its construction, they used the marble and the store from the antic theatre and the stadium Sarıkışla which is a 3 storied stone building, with its U shaped construction represented, the magnificence of Ottoman government. It took its name from its yellow colour. (Fig. 6.2.1)

Figure 6.2.1 A view of Sarıkışla in 19th century
In 1871, the mayor of the period, Mehmet Sabri Paşa let the government building demolish (Because it was extremely ruined). Instead, the Italian architect Rofo built a new mansion in neo-classical style. The new mention had a very large garden including Konak Mosque with two pools. (Fig 6.2.2) The square arrangement activities in 1930s caused the square to mount. For this reason, the madrasah of the Konak Mosque and its garden was removed.

Figure 6.2.2 A view from the garden of Konak in 19th century.

In 1880s Mithatpaşa road was put into use. After a while the tram started to run on this road. In 1901 for the sake of sultan Abdülhamit’s 25th anniversary of accession to the throne, the clock tower was built. After words, until 1960s Göztepe, Alsancak and Basmane tramlines were destined at a terminal around the clock tower in Konak Square. (Fig. 6.2.3)

In 1930s Varyant road which connects Halil Rıfat Paşa and Hatay road to the Konak Square was put into use. Moreover, this destroyed the green texture of Değişmentepe, which was covered with graveyards. The green texture was further destroyed with the construction of Archaeology Museum and culture palace. After a long
In 1875, the quay and customs house started to function. They made an addition in Giffel style to customs building.

In 1956, Sarıçıkla was demolished and Konak Square becomes unidentified. Instead of the old government, building that was burns down in 1970, a new one was built and they also built tall buildings and on unauthorised municipality, building all of which destroyed the scale of the square. Within this newly created scale, clock tower the symbol of İzmir disappeared.

In 1970, the banks and the building of social insurance institute (Sosyal Sigortalar Binası) which were built on the new reconstruction lands inhibited the connection of historical Elhamra cinema (Elhamra sinemasi) and Notional Library (Milli Kütüphane) with sea and the areas which are open to public. In 1970s and 1980s, Konak Square experienced the disorder created by bus and “minibüs” stations and noisy marketing places.

Figure 6.2.3. Tramlines around the Clock Tower in Konak Square, İzmir.
In this period municipality organised a project competition. In this competition Architect Kemal İpek became the first, but the project was not applied. (Fig 6.2.4)

The coast road that was built in the middle of 1980s caused the square to depart from the sea. During these years the part of Mithatpaşa road that cut off the square was turned into pedestrian road and the bus station were removed.

In the beginning of 1990s, Konak Square came face to face with a new discussion. The Galleria project that was chosen in a competition was tried to be applied but the project between the numbers −4.50 and +12.80 and based on 23.00 square meters having 108.214 construction land was abolished with the attempts of chamber of architects and the public. They claimed that this project would damage the wholeness of the Konak Square and harm the city silhouette.

In 1993 with the principal decision dated 3.11.1993 and numbered 326 taken by the higher council for the protection of cultural and natural values about historical sites and with the decision dated 20.1.1994 and numbered 4841 of ministry of culture the higher council (İzmir No 1) for the protection of cultural and natural values, Konak district should
urgently be arranged by the municipality and until the protection plan is formed, for every kind of application the council’s opinion should be taken. (İzmir Büyükşehir Belediyesi Yayınları, 1995)

The construction of the underground, which was initiated towards the end of 1996, occupies a large part of the square. Today over the area of underground construction land, there are the arrangements of a Turkish garden. (Fig. 6.2.5)

Figure 6.2.5 A new arrangement of Konak Square in 1999

**Government Building (Hükümet Konağı)**

In the place of today’s government building, there was a mansion which was built by Katipoğlu Hacı Ahmet Ağa in 1804. In 1816, Ottoman government with the fear of his getting influential murdered him. After wards the mansion assumed the function of an administrative structure and eventually became the government building. It can be understood from the beginning of XIXcc. was quite ruined. In 1867, they decided to build a
new one instead of the old mansion. In 1871, Mehmet Sabri Paşa, the mayor of the period, had the mansion demolished. Instead of the old mansion, a new one was built in Neo classical style by an Italian architect called Rofo. The building, which was completed in 1872, still serves as the government building today.

**The Clock Tower (Saat Kulesi)**

The clock tower, which is the focal point of this area, was built with the attempt of Bahriye Mirlives Küçük Sait Paşa in 1901 for the sake of Abdülhamit’s 25th anniversary of accession to the throne. The architect who also had built the German consulate building built it. The clock of the tower was given as a gift by the German Emperor Wilhelm the second. The tower that lies on a base made of three-slopped menbve is 25 meters tall and gets thinner as it goes up. Underneath on four sides. It has fountains enriched with pillars and domes. The outer surface is ornamented with high relief but there are not any inscriptions. The clock tower resembles the minaret structures of the Sid Okba Mosque in Kayravan and az-Zituna Mosque in Tunisia in terms of structure and visual characteristics. There are also similarities in the outer ornamentation. In the architectural development of city, clock tower has a special place. Up to that time architectural mentality was composed of traditional symbols such as castles, mosques and madresahs but clock tower appeared as the symbol of a new architectural tendency. The tower was damages in the earthquake of 1974 and later on was restored.

- Sixty-eight pink and green columns were used in the building of the tower.
- On the other hand, one of the reasons far the construction of the tower was the friendly relationships, which made German and Ottoman Empire come closer at the time. (Fig. 6.2 6) (Ülker, 1989)
Figure 6.2.6 A view of Clock Tower in 1999
First Bullet Monument (İlk Kuryun Anıtı)

The first bullet monument, which is accepted as one of the most important places that determines the place of İzmir in the history of republic, is situated in Konak Square. On 15 May 1919, İzmir was occupied by Greek Army and although they were assured that there would be no resistance, the owner and the writer of "Hukuku Beşer" newspaper, Hasan Tahsin Recep (his real name was Osman Nevres) fired the first bullet and killed the standard bearer of the Greek Army then he became a martyr. Today this monument symbolises the first resistance of the city in the independence war as an important historical event. (Fig. 6.2.7)

Yalı Mosque (Konak Meydanı)

Yalı Mosque which is one of the historical works of art in Konak was built by the attempt of Ayşe, the daughter of captain Mehmed Paşa, and at that time, it had a madrasah as well. The madrasah was consisted of eight sections and had seven students. Today we do
not have the madrasah and the mosque, which was damaged because of earthquakes, was restored and gained today’s appearance by Mayor Rahmi Bey during the First World War.

This mosque is a masjid, which was built, in Ottoman architectural style with an octagon shape and a dome covering the upper surface. The walls are a mixture of stone and brick and the side of the windows was embellished with china. It has a single gallery minaret that lies on a hexagon base and in the cell section. It has wonderful examples of original turquoise coloured chinas, which demonstrates the beauty of Ottoman art china. (Fig 6.2.8)
6.3. The Use of Evaluation Methods, and Techniques

6.3.1. The Analyses of Example Square

- To research whether the square is an enclosed and identified space:
  
a) The degree of enclosure formed by restrictive surfaces.

1\textsuperscript{st} Period

There was a U shaped structure towards the sea. The three sides of the square were restricted (marked at) with buildings. The restricted on side four was the sea. Therefore, the degree of enclosure was strong. (Fig. 6.3.1)

![Figure 6.3.1 Strong enclosure of Konak Square in 19\textsuperscript{th} century.](image)

2\textsuperscript{nd} Period

In this period Mithatpaşa road divides the square into two parts. The part was called, as the square was the one between the road in which the clock tower was situated and the sea. Since the open area called the square could not the constitute a
wholeness with the buildings, the space which was supposed to form the square was unidentified. On one side there was the sea, on the other side was bordered by the road and the bus station. For this period, we cannot even talk about enclosure. (Weak enclosure) (Fig 6.3.2)

Figure 6.3.2 Weak enclosure of Konak Square in 1980s.

3rd Period

The municipality building on one side, government building on the other and social insurance building in the same row encloses the square. The square is identified in both sides with the buildings that face it, but for the part that the roads enclose it, there is not identification in the third dimension. Consequently, there is not such a feeling of strong enclosure in this period (Partial enclosure). (Fig 6.3.3)
b) The consideration of restrictive surfaces in terms of shape, textures and colour.

1\textsuperscript{st} Period

In the restrictive surfaces, generally rectangular forms are used. In addition, this created a dynamic effect on people in physical terms and psychologically give a feeling of balance. Because of this dynamic effect, it created activity in the square and this activity provided vitality in the square.

On the surfaces, hot colours and pastel shades were used and the surfaces gave a feeling of strong texture. The hot coloured and strong textured surfaces enhanced the feeling of enclosure in the square because they give a sense of closeness.

Also different colours used on the faces in both vertical and horizontal pattern helped to avoid the monotony and vitalised the square. The usage of ivy, yellow
and red colours in the space created a stimulating attractive, interesting and entertaining effect they enhanced both variety and vitality. (Fig. 6.3.4)

Figure 6.3.4 A view of Konak Square, Izmir in 19th century.

2nd Period

There is only the municipality building that restricts the space. The colour of municipality building is grey. This arises a feeling of maturity and relief in human psychology. In addition, it is perceived as if it is further because of its soft texture and light shade. And this in turn makes the space seem larger, which fosters the feeling of disappearance.

3rd Period

The colour ivy, white and grey is used densely. The use of these colours in a light shade and the soft textured feeling of surface cause them to be perceived further than they are. This in turn makes the space seem larger than it is. On the other hand, the use of the colours in the same shade caused monotony.
On the surfaces, generally rectangular forms are used, which gives a dynamic effect to space. And in the space where there is a continuous flow of pedestrians, rectangular forms support the actions of the pedestrians.

c) The Study of the Condition of Lightning in the square.

1st Period
Due to the wavy structure of the surface the contrast of light and shade was formed. In this gave the space vitality. The contrasts of light and shade caused variety in the space. Also, by means of Sarkinşla that marked out square in the sought, Light and shade contrasts were formed on the ground surface.

2nd Period
Because of the existence of intensive waves on the face the municipality building, it caused the formation of contrasts of light and shade.

3rd Period
Since the social insurance building and the other buildings which mark out the square are not in the same row, they caused the formation of waves and this in turn has given vitality to the space by forming some shades in different angles and depths. These shade spaces caused the formation of subspace in the square. For example the subspace in that area and made that space attractive climatically.

The shaded areas formed by the group of trees in the square are used as sitting spaces. Also, the difference in the colour shades formed enchanced the attractiveness and variety.

- To study the ground pattern and the forms of arrangement of the square.

3rd Period
By using different colours on the floor, they tried to create different effects on the square. On the floors where the shades of the red and grey one used, in order to direct the flow of pedestrians red colour is particularly used due to the attractive effect it creates. (Fig. 6.3.5) The contrast formed by grey and red has given the feeling of third dimension and vitalised the space. (Fig 6.3.6)
As a result of the square arrangement, the level formed was higher than the real level of the clock tower and the mosque. Consequently, by using this difference of level, different spaces are created for the clock tower and the mosque within the square, and by going down these areas by a ladder the difference was determined.

Figure 6.3.5 Ground texture of pedestrian way.

Figure 6.3.6 Pavement of Konak Square, İzmir in 1999
- The green land arrangements on the square in terms of the focal points created by the objects in the square.

1st Period

The Clock Tower was situated in the middle of the square. From this point of view, it is the focal point. The clock Tower is an element that has dominant and landmark quality. Since the buildings around it were low, its dominant features were emphasised. And its effect on people was higher. The Clock Tower gives a visual richness to the square and at the same time identifies it very well. Because of the attractiveness it created, it also provided the continuity of transportation with the other squares. (Fig. 6.3.7) The power of attraction it formed during the transfer from one square to another depends on its scale, because it created a visual attractiveness.

Figure 6.3.7 Pedestrian circulation in Konak Square in 19th century

There were not any trees in the square other than the few trees in front of the Government Building. Yali Mosque had also the landmark quality and it gave a richness and vitality to the space.
2nd Period

With the division of the square by Mithatpaşa street into two parts, the Clock Tower and Yalı Mosque were placed in different spaces. In this period, Yalı Mosque did not have a serious effect on the square.

After they demolished Sarıkışla and the other buildings which marked out the square and has the new buildings and the Municipality Buildings exceeded their scale, the Clock Tower became unidentified and its scale disappeared and its visual effect, it lost the quality of being a point of attraction for the continuity of circulation. The visual continuity that reached from the other squares in Kemeraltı to this square disappeared. On the other hand, with the division of the square and the Kemeraltı area by Mithatpaşa street physical continuity was also lost. During this period pedestrian circulation was carried out by an overpass. (Fig 6.3.8)

Figure 6.3.8 Pedestrian and vehicle traffic circulation of Konak Square in 1980
3rd Period

The Clock Tower is a landmark for the town of İzmir, but its visual effect and influence in creating an image were lessened. Municipality Building with its tallness has destroyed the dominant quality of the Clock Tower. The dominant element in the square is no more Clock Tower but the Municipality Building. In this respect, the scale of Yalı Mosque was also lost. (Fig 6.3.9)

Figure 6.3.9 Municipality Building has destroyed the dominant quality of the Clock Tower and the scale of Yalı Mosque in Konak Square, İzmir (1999)

With the green land and pool, arrangements round the square separate spaces were formed and the level differences have been made clearer.

On the other hand, the trees and the greenland arrangement which was made on the side of the Atatürk Boulevard that breaks off the connection of the square with the sea, caused the square to become more removed from the sea in terms of both transportation and visual features.

In addition, the quality of having visual continuity and being a point of attraction, which was formed, in the second period is missing in this period. Only circulation continuity was provided in physical terms. (Fig. 6.3.10)
Figure 6.3.10 Pedestrian and vehicle traffic circulation of Konak Square, İzmir in 1990s

The palm trees in front of the social Insurance Building was put in a now in accordance with the vitality on the face of the building. (Fig. 6.3.11)

Figure 6.3.11 Palm trees in front of the Social Insurance Building in Konak Square (1999)
The fountain element used in the square is not as important as it was in old Turkish towns. (Fig. 6.3.12) It serves not in visual terms but in functional terms sitting elements were formed within the greenland arrangements and located in the subspaces. (Fig.6.3.13)

Figure 6.3.12 The fountain elements in Konak Square, İzmir (1999)

Figure 6.3.13 Greenland arrangements in Konak Square, İzmir (1999)
In spite of its historical importance, first Bullet Monument cannot be effective in visual terms in the square.

6.3.2. Determination of the Problem

A. Problems in Definition

By deconstructing Sarıçıkla, in 1956, Konak Square lost its definition. Other deconstructed buildings and the ones that were built in their place and especially the new Municipality Building caused the area to lose its scale and with the newly formed scale the effect of Clock Tower is diminished. (Fig. 6.3.14)

Figure 6.3.14 The view of Clock Tower with its around in Konak square, İzmir (1999)
B. Problems in the Circulation

With the construction of the new road in 1980’s the square distanced away from the seaside and its connection and relation with the sea decreased. The continuation of the circulation that connects Kemeraltı shopping area and the sea was cut down.

Other roads that surround the square also disconnected the circulation between the square and cultural facilities.

With the insufficient parking facilities, many problems occurred due to the transportation and vehicle traffic to and from the area. Another factor that increased these problems is the fact that Konak and surrounding area is a shopping centre and an attractive area for other activities. Therefore, car parking and transportation problems reach to their peak in Izmir and especially at Konak Square. (Fig.6.3.15) It is expected that as underground starts to function, most of these problems would be solved.

Landscape design of the area affects the pedestrian circulation negatively.

Figure 6.3.15 Parking area in front of the “Vapur İskelesi” in Konak Square, Izmir (1999)
C. Problems of Vitality
The square that is characterised with city symbols such as Clock Tower, Vilayet Koanağİ, is used densely through daytime however is desolated at night. The cause of this is that Konak and the surrounding area has the identity of CBD.

6.3.3. Model-Evaluation of the Method with Sample.

- The Goals Supporting Social and Cultural Life
  - Konak Square is an area that should be planned as an open spaces both with its historical, usage, spatial and urban perspectives.
  - The historical importance of Konak Square and Vilayet Konağı and the symbolic properties of Clock Tower should be protected and should contribute to the city’s identity in the future.
  - Konak Square should be designed for public and society benefits, and in the may to develop the social and in the manner that would help citizens to integration with the city and to know the city.
  - To obtain social unification by creating possibilities of meeting conservation, education and cultural activities, in an urban space.
  - It should be planned as an open training space for urban education. It should be equipped in a way to achieve cultural activities such as open and closed exhibition areas, etc.

- The Goals Supporting Enclosure
  - To be able to provide the feeling of safety, convenience and secrecy when needed.
  - To make use of level differences and artificial topography elements in order to identify the square.
  - Activities and landscape elements used in the area should border the square but not determine it. The main characteristics of the area are that it should provide the open-air facilities and collective usage and it should be an urban area that has a symbolic identity.
- A restricted at the third dimension is needed in order to constitute closeness and in order to determine the square.

- Sub-spaces formed at the square should have a scale smaller than Clock Tower and should not have a quality that suppress its symbolic identity and should not destroy its visual effect.

- **The Goals Supporting Continuity**
  - To encourage the people of different ages and qualities to use the square. In other words, to increase the variety of users.
  
  - To determine the relations of the square with its environment, to provide visual/functional transfer and to establish the integrity with its environment.
  
  - To make use of the water elements to provide visual continuity and spatial connection. At the same time to provide the climatic connection.
  
  - The pedestrian and traffic transportation and service facilities according to the present and proposed functions should be provided.
  
  - The connection of important activities with each other and with each other and with parking areas and bus stops should be planned in a way to provide continuity and urban elements.
  
  - Sufficient car-parking areas should be planned at the surrounding area for short and long-time usage.
  
  - The connection of the square with the sea should be provided.

- **The Goals Supporting Diversity**
  - To enforce the visual and functional variety by forming subspaces.
  
  - To form different landscape areas by creating a variety of colour, texture, sound and smell (This also increases vitality).
  
  - Different sitting groups and promenade areas should be arranged related to these landscape areas.
  
  - The usage of street furniture whose aesthetic and modern quality is high.
  
  - To make the necessary arrangements for old people, children and disabled people.
- The townscape elements used at the square should be differentiated from the ones used in other spaces so that the square will have a special identity and the visual quality will increase.
- Functional variousness will be given to the square.
- The usage of various colour textures, forms, and these should be in harmony.

- **The Goals Supporting Vitality**
  - To chose the suitable plants for different climates and to create a vivid effect in each climate.
  - To vitalise the space by using interactive sculptures. Various functions should be located at the area for day and night usage.
  - Landscape and townscape elements should be used to bring liveliness to the space.
  - Lighting should be provided for the night.
  - Variety and contrast in colour, texture and form should created in order to attract people.

- **The Goals of Flexibility and Applicability**
  - To makes the functioning and maintenance of the square easier.
  - In the design of square, the solutions should be put so that changes and extensions in space and time dimensions could be possible.

**6.3.4. The Project of Konak Square**

Konak Square as an urban space in downtown Izmir is the site of intense urban, historical, administrative, cultural and transportation functions. So, researching visual quality of Konak Square which is the most important element to the formalization of city image in Izmir and redesigning of it as a step for a more modern, more comfortable and livelier Izmir occurrence the aim of this projects.
Figure 6.3.16 Site Plan (Scale: 1/1000) of Konak Square, İzmir 1999

Figure 6.3.17 – 5.74 Level Plan (Scale: 1/1000) of Konak Square, İzmir, 1999
Figure 6.3.18. Plan (Scale 1/500) and elevations of Konak Square, İzmir, 1999
Attempts for the achievement of enclosure;

- The Clock Tower, which has become a symbol of İzmir, is almost unnoticeable today, as to its standing in a huge open area. "The Ceremony Area", that is to be created in front of the Government and Municipality buildings within the project proposal, is designed to provide a better setting for the Clock Tower by appraising the range of its own dimensions.

- To provide the integrity of the square with the additional area, that will emerge in the final, grading spaces has been created. In addition, major axis has been generated with reference to Clock Tower. These axis are planned to increase the emerging effect of the image of Clock Tower as a landmark within the site.

- The Square which is determined with the edges of buildings on the north and east sides, is also tried to be defined with arcades and a sequence of trees on the south side within the concept of project proposal. The southern boundaries that are to be created
within the project will also give way to the prevention of both negative visual effects and noise effects of the traffic, flowing over the related area.

**Attempts for the achievement of continuity:**

- In this square with dense traffic, pedestrian and vehicle traffic will be directed on different elevations. Atatürk Boulevard was suggested that this way from the AKM to the Konak Pier was built to −5.74 level. So an access route to the sea will be provided for pedestrians.

- Because of the traffic change (along the shareline from the AKM to the Konak Pier) a wide pedestrian walk has been planned. Starting at Alsancak the promenade strip becomes wider past Cumhuriyet Square, the strip reaches İskele Square. Furthermore after passing through Konak Square the strip connects to another similar pedestrian walk extending to the Üçkuyular district.

- In this project, for providing spatial integrity and visual continuity, water elements were used, at the same time, they also provided to illuminate the parking area and traffic road under ground.

- To make transportation easy to square, three stories parking area underground was planned.

- The units in different elevations will be connected to each other by ramps, staircases, and escalators.

- The shopping centre and metro will be directly accessible from the 1500-vehicle parking lot.

**Attempts for the achievement of diversity:**

- Square which was used as a recreation and passing area in the past provided multiple uses according to suggestion which was come with planning. Ceremony area open exhibition area commercial increased usage variation in square.

- Furthermore landscape elements was used in square show differentiation according to its aim.

- Also In ground texture of square size and colour differentiation diversity was provided.
Attempts for the achievement of vitality;

Within the square, especially on metro exist, there will be a high pedestrian circulation so there have been offered some buffets and flourists in order to increase livability. For the night use, suitable lighting has been provided both for safety and attraction.

According to the consideration of probable pedestrian circulation that will emerge after the construction of Konak Pier was completed, various shopping units have been provided under the ground level where the circulation flows from the stops of buses and metro, through the port. These shopping units are thought to be suitable for pedestrians safety in terms of connecting the metro stops and multi-level car-park.
CHAPTER VII

CONCLUSION

We have seen that squares, being an urban space that reflects social, economic, political and cultural features of its age, are in a continuous state of change. However, one thing that has never changed during this period is the desire of people to get together and their need for squares. In every period of history, squares have occupied a significant place in the formation of urban spaces.

Even in today’s world where the importance given to the squares has lessened, the need for squares to carry out official ceremonies, festivals, entertainments, protests and the most important of all the need for squares as a place to gather can not be denied.

However, in our country the lack of qualified urban spaces is ignored owing to the whether there are squares or not in the towns where are squares or not in the towns where the planned development hasn’t been carried out, the sufficient technical infrastructure hasn’t been established and where the municipality has serious problems in providing the necessary sources for its services. But it shouldn’t be forgotten that one of the most important problems of Turkish town planning is the formation of insipid towns. One way out of this problem can be to create original spaces, which can be vitalised by the activities involving the participation of all towns’ people.

One of the elements that can give originality to the towns is a square. The squares, which still have an important role in giving an identity to the town and providing an urban image for the citizens both symbolically and in terms of usage, should not be neglected anymore.

The aim should be the arrangement of towns in a way that will help the townsman know his town and love it and integrate with his town. This can only be possible by taking into account the use of public and the benefit of society and providing spaces where individual or common activities can be carried out. On the other hand, town squares should be arranged as a place of common used and an urban meeting space, which will help to speed up the urbanisation and democratisation of the new citizens of the town and with all the elements it involves should make them feel the importance dedicated to the individual.
As a result we all have a role to play in the formation of qualified and identified town spaces and in the creation of town squares vitalised by people.

Local authorities should rearrange the spaces, which have the potential to be town squares according to modern urban square principals while doing this the aim but to create a square that can be used safely and actively by the pedestrians.

The need for squares which has been an important urban element since our colleagues should not neglect the ancient times anymore.

To make the necessary arrangements that will enable the use of squares by the public is an issue beyond technical considerations. In this arrangement, the square should be taken into consideration not only as a surface but also with the buildings around it in the third dimension, ground pattern and the objects within the limits of the square as a whole.

As a conclusion in this thesis while doing the spatial analysis of Konak Square, a method has been developed in relation to the 3 elements (square limiters, ground pattern and objects) that forms the square and this is taken into consideration as a whole including the surroundings of the square.

The tendency that the space should be a part of a certain environment and the influence of this environment on the square in physical and visual terms seem to have been given a considerable importance in design studies throughout the various stages of the history. These are the identified and original spaces.

In the spatial analysis made on Konak Square. It has been observed that the environmental factors that affairs the urban squares are influential in the formation of successful urban designs and also in reading a synthesis.

As it can easily be understood from here, urban space should be studied in various stages. The basic means of design such as colour, texture, size, shape, the condition of lighting, the human parameter and functionalism should be considered and evaluated as a whole. The basic qualities of the square such as enclosure which gives the square its originality, variety which can be achieved to a certain extent, vitality which is crucial for the existence of the square, should all be provided and finally the continuity which is needed for the connection between the squares should be established. However, while taking such a point of view, we shouldn’t ignore the relation of the square with its environment and the social meaning of the square within the urban life.
These features have been taken into account in the formation of the criterion for both the spatial analyses of Konak Square and in order to highlight the future designs.

As a result of the spatial analysis of Konak Square, it has been seen that Konak Square has experienced many changes throughout its historical evaluation, but these changes have generally had negative effects on the square. Today, Konak Square is one of the urban spaces, which has lost its importance. However, the recent activities have been destined to eliminate the negative points and to help the square regain its importance.

In the annuluses made in the ‘Case Study’ section, it has been seen that the square has lost its quality of being a square in physical terms. The visual effect of the Clock Tower, which has a great importance for Izmir has lessened. With the new arrangements, it became more difficult to be perceived from the sea. This shows that the Clock Tower should be emphasised in the future projects.

In addition to this, after they demolished Sankişla, the square was left unidentified for a long time. It should be know that, as it is mentioned above, this identification is possible with the enclosures in the third dimension.

As a result, in the light of these studies the most important problems of Konak Square are the lack of identification and the decline in the visual quality, which determines the image of the city, but perhaps the most serious problem is the transportation.

Due to its features that it has carried throughout the history, Konak has the quality of node. Because it has a structure which serves most of the urban activities. In addition to this, Konak Square is an exchange centre in which the transportation gathers and distributes. The main reason of its continuo transportation for years is the problem of transportation. The arrangements, which have been made so far, has mainly aimed at solving the problem between pedestrian and vehicle traffic. Unfortunately these arrangements, up to now, have resulted in the dominance of vehicle traffic. It is believed that only with the solution of the traffic problem will the other problems be solved in the square.

In fact, traffic is the basic problem in all parts of İzmir as well as Konak Square. This has proved that the problem of transportation is one of the basic reasons that have caused the square’s to lose their importance, and also this problem has been influential in the formation of insipid urban spaces and towns.
In conclusion, as it is emphasised in all of these explanations and findings, urban spaces should be designed in relation to their environment. Also with a considered throughout their historical evaluation, and their social, cultural and functional structure should be protected and improved. Consequently, it will be possible to study the visual quality in urban spaces, to take the physical and spatial changes resulted from urban growth user control, to have a tendency towards original and new arrangements and to increase the protection measures.
REFERENCES

ABRAMIAN, L.A., “Archaic Ritual and Theater: From the Ceremenial Glade to Theater Square”


ATAY, Ç., “Tarih içinde İzmir, İzmir”, 1978


BERMAN, M., “Take It to The Streets”, Dissent, vol. 33, no. 4, 1986


CANSEVER, T., “Ev ve Şehir”, İnsan Yayınları, 1994


DAĞİSTANLI, Ö. “Meydanın, Mekansal Analizi ve Sosyal Açidan Önemi” Master’s Thesis, İTÜ, 1997


GARDINER, S., “The Source Renewed”, Landscape Architecture, August 1986, pp.41-42

GELERNTER, M., “Sources of Architectural Form”, Manchester University Press, 1995


GÜNGÖR, İ.H., “Temel Tasar”, AFA Matbaacılık, 1972

HANÇERLİOĞLU, O., Felsefe Ansiklopedisi- Kavramlar ve Akımlar, Remzi Kitabevi, Cilt 1, 1993


JACKSON, J.B., “A Sense of Place A Sense of Time”, Yale University Press, 1994

JACKSON, J.B., “The American Public Square”, Public Interest, 1984, pp. 52-65

KOSTOF, S., “The City Assembled”, Thames and Hudson Ltd., 1992


KRIER, R., “Urban Space”, Rizolli, 1979


LYNCH, K., “Good City Form”, The MIT Press, 1994


ÖZTÜRK, T., “Characteristics of the XVI. Century Turkish-Ottoman Architecture”, Thesis presented to METÜ, Faculty of Architecture.
PETRSON, S., K. “Space And Anti-Space, pp.89-92


RAPPOPORT, Amos, “House Form and Culture”, Prentice-Hall. Inc.1969

RAPPOPORT, Anotol, “Conflict in Man-Made Environment ”, Pengu in Boos Inc., 1974

RIVLİN, L .G., “Public Spaces And Public Life In Urban Areas”, pp. 288-295

ROWE, C.; KOETTER, F., ”Collage City”, The MIT Press


SEINDENBERG, A., “The Ritual Origin OF the Circle And Square” , pp. 305-325

SERAGELDİN, İ.;EL-SADEK; S., “The Arab City, Its Character And Islamic Cultural Heritage ”Arab Urban Development Institute ,1982


THIEL, P., “A Sequence-Experience, Notation for Architectural and Urban Spaces


TANILLI, S., “Yüzyılın Gerçeği ve Mirası”, Say Yayınları


ZUCKER, P., “Town and Square”, Colombia University Press, 1959


ARTICLE


Arkitekt, 1955, p. 17-20

Dekorasyon, “Meydanlar” 1995-3, p. 84-95

ERGENECİ, G., “Kemeraldında Denize Açılımak”, Ege Mimarlık, 1992-1

İzmir Büyükşehir Belediyesi Yayınları, Bahribaba, Konak Meydanı ve Kordonboyu Sit Alanları “Koruma Geliştirme İlke ve Esasları” Master Plan Raporu, 1995, İzmir.

“Mimarlık ve Sehircilikte Mekan”, Yıldız Üniversitesi Yerlesme ve Mimarlık Bilimleri Uygulama Araştırma Merkezi, İstanbul, 1992


Peyzaj Mimarlığı, TMMOB Peyzaj Mimarları Odası İstanbul Şubesi Yayımlı May-June 1998-4

SEYMEN, Ü., “İzmir TarihiKent Merkezi”, Mimarlık, 1992-1

ÜLKER, N., “İzmir Saat Kulesi”, Ege Mimarlık 1989-4

VARDAR, A., “Meydansız Kentler”, Planlama, Nr.3-4, 1990